

Moving Toward Integrated Resources Planning

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Integrated resources planning needs integrated resources language

INTEGRATED RESOURCES PLANNING, WHICH ADDRESSES “RESOURCES,” RATHER THAN “CULTURAL resources” and “natural resources,” can help managers work through apparent resource management conflicts. Starting with studies like environmental histories, integrated resource planning interrelates human and non-human influences, and uses an approach where park resources can be perceived as cultural and natural at the same time. The “natural/cultural” dichotomy can be divisive, just as the “public/private” and “feminine/masculine” dichotomies can be divisive within the social sciences. The Resource stewardship strategy (RSS) process at Pecos National Historical Park (Pecos NHP; Figure 1) is a case study of how integrated resources language can be developed into integrated management strategies (Pecos NHP and CSU PLHC 2011). An important factor in developing an integrated and holistic approach is the language and terminology we use.

What do we mean by “integration?” Within a National Park Service context, integration refers to effectively coordinating the holistic preservation and management of cultural and natural resources. Park resources are inherently inter-related and inter-dependent in the field; we only need to “integrate” when they’ve been teased apart by agency structure and language (Daniel J. Jacobs, chief ranger, Pecos NHP, pers. comm.). Within the Pecos RSS process, the team wanted to develop an approach that addresses how resources exist in the field, rather than how resources are separated through professional specialization, terminology, and funding sources.

Consider an area within Pecos NHP where a ranch road crosses Glorieta Creek (Figure 2). If we distinguish between cultural and natural resources to describe this site, we could say that the road, bridge, and signs are cultural elements, and that the creek, creek bed, and riparian vegetation are natural elements. However, this way of describing the resource artificially separates elements that overlap and are integrated in the field. Not only do cultural and natural resources exist in an integrated state, resources can be both cultural and natural at the same time, for instance, a historic tree. And, the terms “natural” and “cultural” are heavily nuanced, often defined in terms of each other (Sorvig 2002).

We could describe this same site by identifying “integrated resources” as a third category, describing the resource as a “creek crossing,” as well as identifying individual natural and cultural elements. This may be helpful, but doesn’t quite reach the Pecos RSS goal of integrated lan-

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Figure 1. Pecos National Historical Park encompasses a wide range of resources (J. Cowley 2010).



Figure 2. A ranch road crosses Glorieta Creek within Pecos NHP (J. Cowley 2009).

guage. The goal is to talk about “resources” holistically, to identify resources for what they are rather than categorizing as cultural or natural. The term “resources” encompasses elements of all types, e.g., ethnographic, social, historic, physical, biological, tangible or intangible, biotic or abiotic (Figure 3). The site in question can be referred to holistically (“where the road crosses the creek”) or its constituent elements can be referred to individually (e.g., landform, creek, road, sign, bridge, vegetation, historic use and meaning, ecosystem values).

We can think in terms of a range of different levels of integration: recognition, separate but equal, inclusion, relationship, and integration (Figure 4). These different levels are not necessarily better or worse than others; each can have its own valid applications. Recognition refers to a mention only. For example, let’s consider two hypothetical documents, a vegetation management plan, and a historic structures report. The former states that “this Vegetation Management Plan addresses plant species within the riparian corridor. Some historic exotics have also been identified in this area.” The latter states that “the historic site is comprised of the historic plantation forest grove and the farmhouse. The plantation grove has also been identified as spotted owl habitat.” In separate but equal, cultural and natural resources are addressed at an equivalent level of detail, but in two separate and parallel sections. For example, within an RSS, each section may refer to the other type of resource, but cultural desired conditions and strategies are only addressed within the cultural resources section, and natural desired conditions and strategies only addressed within the natural resources section. Inclusion involves more than a mention, but

Figure 3. The term “resources” can encompass a wide variety of types of resources (J. Cowley 2011).

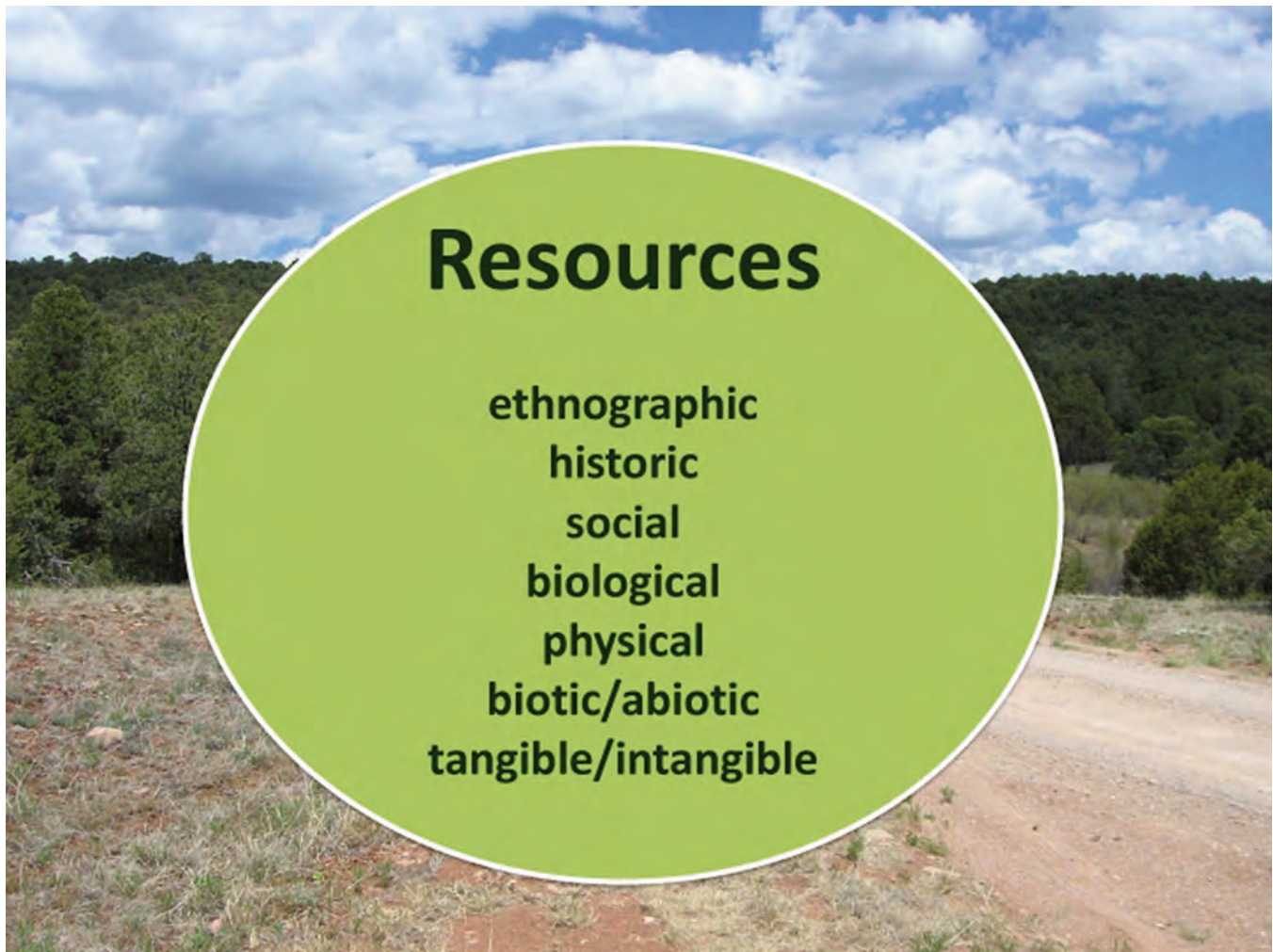


Figure 4. Levels of Integration (J. Cowley 2011).

cultural and natural resources are still addressed separately, for example “this Vegetation Management Plan includes a list of historic exotics, and proposed management of these plants, in Appendix A,” or “this Historic Structures Report includes a plant list, and proposed management of these plants, in Appendix A.” The hierarchy and main purpose of the document is clear.

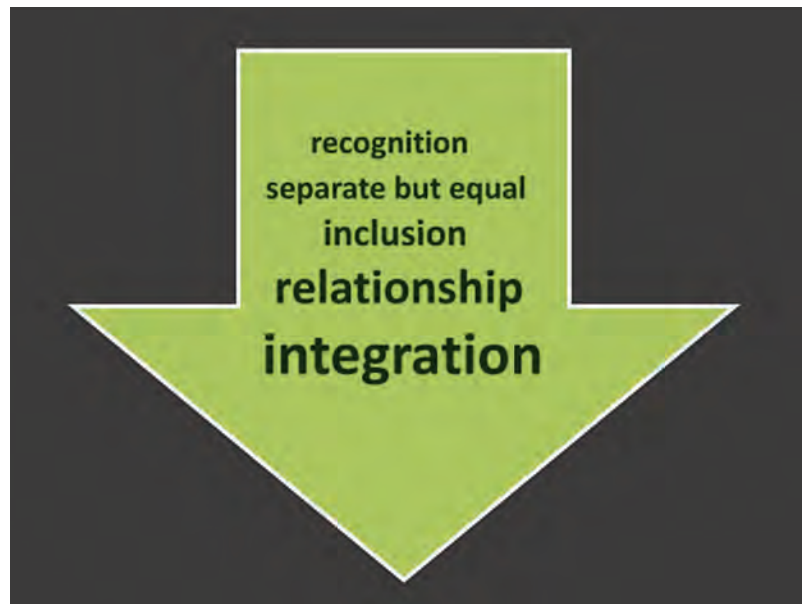
Relationship and integration go further in expressing the interactions and interdependencies of different elements within the landscape. An example of relationship is “the course of the natural riparian corridor determined the route of the historic road which in turn influenced the location of cultural landscapes.” This could be restated to reflect the integration level: “Over time, vehicular circulation running along the river

corridor changed from wagon road to paved highway, with farms and ranches growing up along the road, and both native and introduced trees planted for windbreaks.” With integration, the terms “natural” and “cultural” are not used, and the more specific terms give a richer and more accurate depiction of the landscape and its elements.

Case study: Pecos National Historical Park resources stewardship strategy

Within the National Park Service’s park planning process, a general management plan (GMP) and foundation plan cover the park as a whole, the GMP addressing visitor use and operations in addition to resources management, and the foundation plan focusing on significance, fundamental resources and values, and desired conditions. A resources stewardship strategy (RSS) is one of a number of more detailed plans that address a specific area of park management, in this case, resources management. The goal of an RSS is to bridge the qualitative guidance in the GMP or foundation plan and the measurable objectives in park annual work plans. An RSS document is comprised of the following sections: description of fundamental and other resources and values; statements of significance and interpretive themes; summary of the status of resource knowledge; determination of attributes (measurable resource characteristics), indicators (metric used), and target values (long-term goals for metrics); statement of desired future conditions; current conditions; and management strategies (clusters of action items to move from current to desired conditions). Because the RSS addresses all resources, it is an ideal document within which to develop an integrated approach (Pecos NHP and CSU PLHC 2011).

Setting the stage for integration. How resources and their significance are identified and described is critical in establishing an integrated approach for the whole document. For example, the Pecos RSS uses the following overview description: “The geography, topography, and landscape features that created the travel corridor, and the confluence of topography and water, made travelling through this area a physical necessity. Different modes of transportation and travel stops evolved through time.” The terms “natural” and “cultural” are not used, but each of the terms “geography,” “landscape features,” “travel corridor,” “confluence,” and “travel stops” refers to a combination of natural and cultural resources. In addition, using a holistic landscape approach to organize the description of resources and resource significance helps set up an integrated approach. To apply a landscape approach, the Pecos RSS uses “resource contexts” and “landscapes” to structure the description of resources.



Resource contexts group fundamental resources and values around a historic theme. Resource contexts relate to park significance and stories, and are park-wide because resources relating to the theme can be found throughout the park. For example, the Gateway context "... reflects the importance of the Upper Pecos valley's geographical position and environment to the development of its history. The Upper Pecos Valley has served as a cultural crossroads for many different peoples and cultures, all of whom have been affected by the environment and influenced the environment in turn" (Pecos NHP and CSU PLHC 2011, 13).

Landscapes divide the park into discrete geographical areas identified by a combination of landform, ecology, and extant resources related to specific interpretive themes. For example, the riparian/riverine landscape includes the geomorphology of the Pecos River, and the flora, fauna, archeological sites, and remains of historic settlements within the river corridor. As systems of interrelated resources, landscapes are inherently integrated. Notice that the definitions of the Gateway context and the riparian/riverine landscape do not use the terms "natural" or "cultural." The Pecos RSS process started with traditional resource categories (flora, fauna, cultural landscapes, surface water, archeological resources, etc.) and shifted to "landscapes" to help achieve integration.

Within the development of attributes, indicators, and target values, language in some cases needs to separate between cultural and natural because existing resource inventories and monitoring processes are already divided between cultural and natural, and the park needs to use these already developed processes. For example, the cultural landscape inventory is used to document and monitor cultural landscapes, the rangeland health indicator evaluation matrix is used to document and monitor soils, and the New Mexico Night Sky Standards are used to document and monitor night sky visibility. Even so, some degree of integration is possible. For example, attributes related to each landscape include: historic condition and integrity; community composition, health, and integrity; soil quality and function; and the integrity of ethnographically significant resources. A condition rating, the primary indicator for cultural landscapes, considers the stability of structures, and the health of vegetation.

Desired condition and strategy statements can return to using integrated language. For example, "the landscape is documented, preserved and protected, and receives treatment consistent with its historic and ecological significance and interpretive value," "erosion is diminished or under control," and "a balance of traditional use access and resource protection is identified, maintained or improved" are three desired condition statements from the Pecos RSS. Here, as in earlier RSS sections, "resources" is used rather than "natural resources" and "cultural resources," and each desired condition statement refers to a combination of cultural and natural resources. Pecos RSS strategy statements include the following: "complete cultural landscape report," "continue soil erosion monitoring," and "continue tribal consultation and interpretive programs." "Complete cultural landscape report" is an integrated strategy, even though the title of the document includes the term "cultural," because the document itself addresses both cultural and natural resources, within a National Register of Historic Places context. Soil erosion can affect river banks and roads. Tribal consultation can address a wide variety of issues and resources, including plants and archeological sites.

In addition to integrating resources, the Pecos RSS integrates strategy statements, within a strategy integration table. It is not enough to define a linear sequence of strategies that built on the completion of previous strategies. Instead, the Pecos RSS shows, through the strategy integration table, how multiple strategies, completed simultaneously or in succession, could accomplish one or more desired conditions (Cori Knudten, research associate, Colorado State University Public Lands History Center, pers. comm.).

The RSS also address "dependencies." Some strategies need to be implemented before others can start. For example, under park-wide information needs, the strategy calling for a coordi-

nated GIS system for all resources addresses four related desired conditions. An information needs strategy: work with region to develop useable database for spatial and GIS data. Associated desired conditions addressed include the following:

1. All five landscape units: landscapes are documented, preserved, protected, and receive treatment consistent with their historic and ecological significance and interpretive value.
2. A diverse range of safe visitor experiences exist within the context of the resources associated with the Forked Lightning Ranch unit.
3. Archeological sites, artifacts, pictographs, and petroglyphs are identified, evaluated for their significance, and protected in place.
4. Fuels are managed to protect park neighbors, visitors, and resources from unwanted fire (Pecos NHP and CSU PLHC 2011).

In addition, specific desired condition statements can be addressed by multiple strategies.

Conclusion

Integrated resources planning needs integrated resources language. The terminology and language set forth in this paper is one example of language that can be used to enhance the integration of park resources management planning. The Pecos RSS plan is an experiment in using integrated language, and implementation will be an experiment in applying the plan to on-going or new on-the-ground integrated resources management. As the park implements the RSS, benefits and drawbacks of an integrated planning approach may emerge. One benefit of this approach that has become obvious during development of the Pecos RSS is that resource specialists who are part of the Pecos RSS team are developing a better understanding of each others' language, terminology, perspectives, and priorities.

Acknowledgments

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References

- NPS [National Park Service]. Resource stewardship strategy website. www1.nrintra.nps.gov/planning.
- NPS. Director's Order 2: Park planning. www.nps.gov/refdesk/Dorders/Dorder2.html.
- Pecos NHP [National Historical Park] and CSU PLHC [Colorado State University Public Lands History Center]. 2011. *Pecos National Historical Park: Integrated resources stewardship strategy*. NPS National Resource Report NPS/PECO/NRR—2011/408. Fort Collins, CO: NPS.
- Sorvig, Kim. 2002. Nature/culture/words/landscapes. Unpublished paper on file at the University of New Mexico, Albuquerque, NM.