

Continual Development of Digital Archives of Kin-Men National Park

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Abstract

Kin-Men National Park is the first national park established for maintaining historical assets and war memorials. It contains natural resources, and both cultural and historical importance. It is highly vital in view of historical perspective and plays a milestone of bygone era by itself. In order to strengthen Kin-Men National Park's characteristics, and accomplish the goal of continual development, the project of digitalization of Kin-Men National Park has been initialized since 2009, and so far the project has gone of development. The first stage focuses on digitalization and establishing archives. The second stage is to construct an academic network and introductory websites for public's use, and promote related subjects through online educational methods, and combine homesteads, local gourmets, and specific tourist spots into a larger map for tourism. The third stage prioritizes on promoting the digital archives of Kin-Men National Park. The fourth stage focuses on value-increasing applications, and develops merchandises, electronic business process, and educational materials. Other than possessing special materials and massive digital archives, the project of developing digital archives of Kin-Men National Park is moreover a complete, innovative and a digital archive which contains aspects of continual development. Website: <http://digital-kinmen.kmnp.gov.tw/>

Preface

The three decades since Taiwan first established the Kenting National Park in the 1980s, have seen establishment of a total of eight national parks including those at Yushan, Yangmingshan, Taroko, Shei-Pa, Kinmen, Dongsha atoll and Taijiang. Established in 1995, as the sixth National Park - Kinmen National Park, is the first national park established by Taiwan to protect historical heritage assets, commemorate battlefields, and conserve natural resources. Establishment of the Kinmen National Park not only evinces the importance of preserving local cultural assets, but also ensures a more complete geographic scope for Taiwan's national park areas.

Digitalization is an important current policy focus for Taiwan's government. To ensure the sustainability of Taiwan's national park resources, this study relies on the policies announced in the Executive Yuan's "National Digital Museum Project", "National Digital Archives Program", "International Digital Library Cooperation Plan", "National Digital Archives Science and Technology Plan", and other valuable experiences, to develop the Kinmen National Park Digital Archives project. Our study enjoyed support from the Kinmen National Park management for provision of park souvenirs, books, planning reports, photographs, promotional materials and audio-visual materials as digital content materials, and additionally used digital media to establish the Kinmen National Park Digital Archives thematic information

website. This website platform can not only assure Kinmen historical sites and natural resources preservation, but these digital contents can be developed and applications promoted for them to expand integration of the knowledge, culture, communication and academic programs purposes of the park.

Given the background and purpose of this study, the five core goals underlying establishment of the Kinmen National Park Digital Archives are: "permanent archives", "public display", "academic research", "education and learning", and "cultural heritage."

Research Methods

In order to preserve the precious cultural assets of the Kinmen National Park, through four years this study centers on six core efforts revolving around establishment of a permanent collection, cultural preservation, public display, education, learning and academic research, to be carried out through digital content development, and after finishing assembling of the information and digital technology and application processes, to build a complete "Kinmen National Park Digital Archives Project." The research process for this study is shown in Figure 1.



Figure 1. Methodology and process of the study

Cataloging

Cataloging, refers to systematically assigning identification information for cultural relics or collection items in order to facilitate collection acquisitions and development, while museum cataloging of artifacts by classification systems facilitate access to heritage information by topic (Burcaw, 1997). This study requires that each collection item must first be catalogued and assigned an identifier, and each code must be a unique identifier which is not repeated. In this way, the researchers' relying on the digitalization process, may communicate through the cataloging object file encoding processes, to ensure collection objects will not be too numerous or confusing. The detailed list for this study is shown in Figure 2.

Website construction

In terms of the system deployment tools used, this website relies on cross-system software development programs, such as the PHP language which can be performed across Windows and Linux platforms. For the site to meet its calling of serving as the “Kinmen Cultural Relics and Natural Resource Conservation Knowledge Dissemination platform”, besides the initial homepage the entire site needs to faithfully give expression to Kinmen's unique cultural and ecological images. Users must be able to choose their own viewing purposes, but also directly search into the academic research contents by keyword, collection type, etc. Advanced quick search fields are desirable to help find information in the vast digital collection, as is the category navigation mode which permits classification by the humanities, or nature fields from the macro down to the micro levels of the traditional villages, providing access to the unique military equipment or armaments of Kinmen, or Kinmen's native fauna and flora, and intertidal ecological resources. Therefore, in the academic research version page design, we emphasize a more cool and lighter, calmer tone; whereas the general public segmented navigation pages present collection material emphasizing Kinmen tourism information, whereby users can visit the tourist areas in each district of Kinmen, obtaining information about the local tourist attractions, dining options and guesthouses.

So the general public site has light cool color page design aimed at those site visitors will find a lively and dynamic atmosphere to stimulate their interest. Site-related modules are shown in Figure 7 and Table 2.



Academic Usage



General Public Usage



Figure 7. Website pages

Table 2. Website construction

The website construction of Kinmen National Park Digital Archives For General Public	
• Souvenirs	<ul style="list-style-type: none"> • Product Display • Electronic Cards • Desktop
• On-line study	<ul style="list-style-type: none"> • Look for answers • The King of Kinmen
• Tourism	<ul style="list-style-type: none"> • Biking Tours • Looking for wind Lion God Statute • Fine Food • Impressions of Battlefield
• On-Line Library	
• Kinmen Archives	
• Videos	<ul style="list-style-type: none"> • Cultural Heritage • Nature
For Academic Use	
• Cultural Heritage	<ul style="list-style-type: none"> • Traditional residency • Military Preparedness
• Nature	<ul style="list-style-type: none"> • Plants • Birds • Intertidal Zone
• On-Line Library	
• Kinmen Archives	
• Videos	<ul style="list-style-type: none"> • Cultural Heritage • Nature

Marketing and Promotion

To enhance the visibility of this website and ensure maximum usage, this study looks to bloggers as a key demographic to promote our objectives by using the blogging community's networking capacity and influence to improve our site visibility.

Promotions include activities in conjunction with events sponsored by the Kinmen National Park administration such as the “Search for the Lion of the Winds”, by hosting a companion online “Visit the Lion of the Winds” activity (see Figure 8). The focus group for this activity will be the typical netizen, who have a keen sense of public spirit and who naturally like to share interesting news with others, as the key to attracting a wider audience and public attention. There had been 302 unique visitors attracted to the blogs, facebook and plukr sites, resulting in a total of 285 networking connections, evincing a highly successful response.



Figure 8. “Visit the Lion of the Winds” and “Search for the Lion of the Winds”

Education and workshops

Other than preserving vital information, it is also important to conduct such knowledge to public. The project focuses on two parts regarding educational aspects. The first is the online digital database which is designed for public education, while the digital collection program is designed for training new talents. (figure 9)

The other part emphasizes on training locals and government officials through specifically designed training methods. Such training would enable locals to retain necessary skills on cultural preservation. (figure 10)



Figure 9. “Look for answers”



Figure 10. Workshops

Value-Added Applications

Through the construction of digital archives and obtaining numerous cultural information, the traditional cultural assets could be applied to the project. The examples are as follow: 1. The development of electronic maps for tourism(Figure11). 2. 3D displays (Figure12). 3.Virtual reality(figure 13). 4. Value-added merchandise. (figure 14). 5. Electronic holiday season cards. (figure 15) 6. Easycards (figure 16). Such developments could have digital archives achieve its greatest advantage, and raise the value of the merchandise through cultural aspects, thus create a win-win situation.



Figure 11.E-map



Figure 12. 3D display



Figure 13. Virtual reality

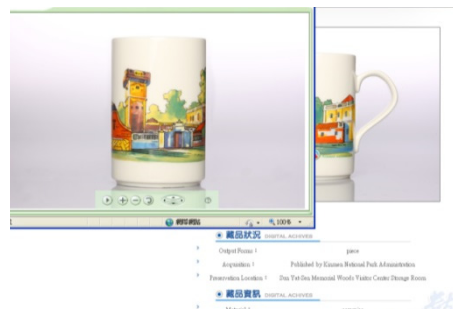


Figure 14. Value added products



Figure 15. E-card



Figure 16. Kinmen easycards

Conclusion

Digital archive system has been developed for many years. Although of digitalization of its archives has reached apex, there is yet to have a continual development on value-added projects and marketing strategy. This project would be based on a 4-year program to fulfill its purpose. Through the construction of database, development of official websites, educational service, and proper marketing methods, this project could serve as the model for programs of digitalization, and provide vital data for further research.

References

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Author Biography

Dr. Yung-Cheng Hsieh is currently the President and Professor of the National Taiwan University of Arts (NTUA). He earned both his B.S. and M.S. degree in Kansas and Missouri, and Ph.D. degree in Industrial Technology with Statistics minor from Iowa State University. He taught at Illinois State University before he began teaching at NTUA. As a Visiting Professor during the summer of 2008, he taught at Department of Printing & Packaging of Wuhan University in China. Dr. Hsieh also conducted researches with Industrial Technology Department of Appalachian State University (NC, USA) as a Distinguished Full Professor in the summer of 2009. Dr. Hsieh specializes in graphic communication technology, digital archive and e-Learning, digital content development and application, applied statistics, experiment design, cultural creative industry. He received Silvius-Wolansky Award for outstanding research by the Iowa State University in 1997, Distinguished Research Award by National Science Council in 1999, Outstanding Professor in Industrial Technology Award by National Association of Industrial Technology of USA in 2002, The Research Excellence Award of NTUA in 2003 and 2006, and Top 100 Project Manager by Taiwan Project Management Association in 2008 and 2010 (Level D and C Certificate).

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