

# **Electronic Theses and Dissertations**

## **NDLTD Annual Meeting**

**Brigham Young University - Provo Utah**

May 30 - June 1, 2002

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# Background



- ⌘ **UMI has been performing collection, cataloging for access and conversion to microform for over sixty years.**
- ⌘ **Over 40,000 US dissertations received each year on paper.**
- ⌘ **Another 11,000 paper manuscripts are received from the National Library of Canada.**

# Background



- ⌘ **Nearly 700 institutions submit dissertations on a regular basis.**
- ⌘ **1.6 million citations in the Dissertation Abstracts database.**
- ⌘ **Over 1 million dissertation titles available in full text.**

# Background

- ⌘ **UMI maintains and preserves this dissertation collection on microfilm and microfiche.**
  - ☒ **Microform stored in separate temperature and humidity controlled vaults.**
  - ☒ **On-demand duplication and distribution in paper and microform.**
  - ☒ **Since 1997, reformatting into TIFF images wrapped in PDF.**

# Nature of the Dissertation

- ⌘ **General agreement that it should be an original and significant contribution to knowledge.**
- ⌘ **The Council of Graduate Schools notes that the dissertation should serve as a demonstration that the student can perform at a professional level in his/her area of specialization.**

# Nature of the Dissertation

- ⌘ From the perspective of an individual institution, dissertations represent part of the historical record of graduate education at the institution and part of the fund of intellectual property created at the institution.
- ⌘ From a national perspective, the body of dissertation literature forms part of the history of graduate education in the country.

# Nature of the Dissertation

## ⌘ A dissertation is part of a student's records.

**“ANY RECORD, WITH CERTAIN EXCEPTIONS, MAINTAINED BY AN INSTITUTION THAT IS DIRECTLY RELATED TO A STUDENT OR STUDENTS. THIS RECORD CAN CONTAIN A STUDENT'S NAME, OR STUDENTS' NAMES OR INFORMATION FROM WHICH AN INDIVIDUAL STUDENT, OR STUDENTS, CAN BE PERSONALLY (INDIVIDUALLY) IDENTIFIED THESE RECORDS INCLUDE: FILES, DOCUMENTS, AND MATERIALS IN WHATEVER MEDIUM (HANDWRITING, PRINT, TAPES, DISKS, FILM, MICROFILM, MICROFICHE) WHICH CONTAIN INFORMATION DIRECTLY RELATED TO STUDENTS AND FROM WHICH STUDENTS CAN BE PERSONALLY (INDIVIDUALLY) IDENTIFIED.”**

Richard Rainsberger, FERPA in the Digital Age: What You Need to Know, ECURE, 2001

## ⌘ One-of-a-kind documents.

# Nature of the Dissertation



A Flora Of Nevada

John Thomas Kartesz

University Of Nevada, Reno, 1988

1739 Pages

A study was performed on the state flora of Nevada, in an attempt to assess all of the known wild and naturalized vascular plants in the state. The work provides scientific and common names, dichotomous keys, morphological and ecological descriptions and distributional summaries for all taxa treated.



# Nature of the Dissertation



The Experience Of Inherited Wealth: A Social-Psychological Perspective

Joanie Bronfman

Brandeis University, 1987

412 Pages

This dissertation examines the lives of wealthy people from a social-psychological perspective. It provides in its use of the concept of psychological injury, an explanation for patterns of behavior which have previously been misunderstood and attributed to snobbishness and self-interest. Exposing the true nature of the experience of the wealthy corrects this misconception.

# Nature of the Dissertation



A Product Development Study: Rainbow  
Trout Bologna

MS thesis, 1998

90 Pages

# Nature of the Dissertation



The Cardio-respiratory Response to  
Underwater Treadmill Exercise in the Lobster  
*Homarus Americanus*

1999 MS thesis,

82 Pages

Lobsters of the species *Homarus americanus* were exercised on an underwater treadmill to measure the cardio-respiratory responses to non-exhaustive walking.

# The Changing Environment



- ⌘ **Expectation that paper will remain the preferred distribution medium for at least another 5 - 7 years.**
- ⌘ **ETDs received from about 5% of submitting institutions.**
  - ☒ **35 institutions submit some or all of their dissertations in digital format through various delivery means.(FTP, downloads, CD-ROM, e-mail)**

# The Changing Environment



- ⌘ **Increased usage of graphics. Over 70% of current digital submissions contain some graphical elements.**
- ⌘ **Increased use of multi-media, particularly video.**
  - ☒ **Very large files.**
- ⌘ **Each document is unique.**

# The Changing Environment



- ⌘ **Challenges of access, delivery and long term storage.**
  - ☒ **Researchers must be able to FIND, ACQUIRE and KEEP these resources.**

# Managing Access

## 12 Elements of the DAI Citation

**Title:** Mapping artifacts on the frontier of ancient China: An approach to study of the Yan mountainous area in the eastern Zhou period (8<sup>th</sup>--3<sup>rd</sup> centuries BC)

**Order No:** 9985056

**Author:** Li, Jian-jing

**Degree:** PhD

**Corporate Source/Institution :** University of Pittsburgh

**Date:** 2000

**Pages:** 143

**Advisor:** Linduff, Katheryn M.

**ISBN:** 0-599-92061-0

**Source:** DAI-A 61/08, p. 2959, Feb 2001

**Descriptors:** ART HISTORY; HISTORY, ASIA, AUSTRALIA AND OCEANIA

**Descriptor Codes:** 0377; 0332

# Managing Access



## **Abstract:**

Study of the late Zhou period in China has concentrated on analysis of the agrarian-based states. Interaction between those who constituted the Chinese dynastic states and pastoral peoples on the periphery of them were often described in hostile or colonial terms. With only the official histories as guides, an explanation that drew strict boundaries between them prevailed until the late 20<sup>th</sup> century. With increased archaeological information documenting activity outside of dynastic centers, the former interpretation can be tested. An alternative scenario at the frontier is proposed here.

Study of artifacts, their disposition and cultural use have provided the basic tool for identifying distinctive life ways and affiliations. Both Chinese and frontier burial materials and practices have been researched and interpreted with knowledge of and comparison to other border societies and theory about frontiers and their function in relation to a central political unit. Focus is on the Yan Mountain region and its relation to the Zhou vassal state of Yan in northeast China.



# Managing Access

This study shows that both the Shanrong group of the Yan Mountain region and the Yan State had their own distinctive social order, cultural traditions and economic bases. Those are marked in the burial assemblages, tomb structures and architectural remains, suggesting that Shanrong was a pastoral and warrior society and was clearly different from the agrarian society of the Yan State. On the one hand, these differences contributed to the formation of an ethnic and cultural boundary; but on the other hand, these different modes of subsistence encouraged them to complement each other functionally, thus making the Shanrong part of a larger social complex.

This case study demonstrates that the boundary between the Shanrong and the Yan State was fluid and was based on need. Interactions in trade, war and colonization occurring in the frontier zone exhibit evidence of the change through time. Technical and ecological factors stimulated a transformation of the structure of interchange on the pastoral/agricultural frontier. In addition, the elite groups from the Yan State and the Shanrong both played significant roles during the process, indicating that political authority still deeply influenced their interactions. Finally, inter-group contacts infused energy into the area and led these two groups to incorporate into a unified, multicultural Chinese kingdom.

# Managing Access

## 29 Elements of the Full DAI Citation A Controlled Vocabulary

### Data Element Chart

Tag	Description	Start Date *
001	Publication number/order number	
005	Date and time of latest transaction	
008	Fixed length data elements	
020	ISBN	January, 1998 for DAI
035	System control number	
040	Cataloging source	
100	Main author	
242	English translation of foreign title	DAI-C Spring 1988
245	Title statement	
300	Number of pages	

# Managing Access

## Full DAI Citation

### Data Element Chart

<b>Tag Description</b>	<b>Start Date *</b>
500 General note (Source)	
500 General note (Publisher)	DAI-C only
500 General note (Advisor)	January 1988 for DAI
502 Dissertation note	
506 Restrictions on access note	
520 Abstract of dissertation	July 1980, for DAI July 1988 for MAI
535 Location of copy	DAI-C Spring 1988

# Managing Access

## Full DAI Citation

<b>Tag</b>	<b>Description</b>	<b>Start Date *</b>
590	Local note (School code)	
650	Subject term	
690	Subject code	
700	Added entry - Multiple Author	
710	Added entry - Corporate name	
740	Added entry - Variant title	
773	Host item entry	
790	Added entry -	Advisor name Jan 1989
790	School Code	
791	Degree name	
792	Degree date	
793	Language of dissertation	July 1992 for DAI

\* All fields listed are valid for all records in the database, covering all dates from 1861 forward with the exception of those so described in the start date column.

# Delivery



- ⌘ **Since 1997, paper submissions have been reformatted into TIFF images and wrapped in PDF for delivery.**
- ⌘ **Over 311,000 reformatted titles available.**

# Delivery



- ⌘ **Digital submissions limited to Adobe PDF with exceptions for CD-ROM applications.**
- ⌘ **Multi-media elements limited to ubiquitous applications. (.mov, .avi, .mpg, .snd, .wav, etc.)**

# Delivery

<b>Year</b>	<b>Sessions</b>	<b>Searches</b>	<b>Downloads</b>
<b>1999</b>	<b>253,192</b>	<b>838,379</b>	<b>26,023</b>
<b>2000</b>	<b>448,933</b>	<b>1,551,106</b>	<b>66,183</b>
<b>2001</b>	<b>633,322</b>	<b>2,188,906</b>	<b>149,961</b>

**Sessions originated from over 1,200 institutions, downloads to over 700 institutions.**

# Delivery



- ⌘ **Downloads include free return access to submitting institutions, individual purchases, and full text subscriptions.**
- ⌘ **45 institutions with full text subscriptions including Harvard, U Toronto, NYU, U Texas-Austin, U Pittsburgh, and U Phoenix.**



# Delivery

⌘ **The Library of Congress receives access to the full Dissertation Abstracts database and the complete collection of digital dissertations.**

<u>Year</u>	<u>Sessions</u>	<u>Searches</u>	<u>Downloads</u>
<b>1999</b>	<b>1,943</b>	<b>7,507</b>	<b>1,813</b>
<b>2000</b>	<b>3,235</b>	<b>12,977</b>	<b>2,303</b>
<b>2001</b>	<b>3,017</b>	<b>13,730</b>	<b>5,218</b>

# Storage



- ⌘ **Challenge to develop a flexible archiving system, responsive to changing storage and distribution technologies and emerging standards.**
- ⌘ **At the same time, it is necessary to continue support of established technologies.**

# Storage



- ⌘ **All reformatted paper submissions stored on spinning disk, magnetic tape, CD-ROM and microform.**
- ⌘ **All digital submissions stored on separate media.**
  - ☑ **Primary storage: spinning disk**
  - ☑ **Redundancy through CD-ROM and magnetic tape**

# Storage



**⌘ Printable elements of digital submissions (text and graphics) reformatted onto microform.**

**☒ Image Graphics E-Beam camera captures digital input and reformats to silver-halide microfiche.**

# Storage



## Data Refreshing:

- ⌘ Regularly scheduled sampling of files using creation date as sampling key.
- ⌘ Read error triggers a survey of all files in date range and physical proximity.
- ⌘ File recovery from reserve storage and replacement of corrupted files.

# Storage



## Migration:

- ⌘ **Hardware and software capitalized over a 3-5 year schedule of planned obsolescence.**
- ⌘ **Business plans reviewed every three years to determine if technological change requires earlier replacement.**

# Contact Info



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