Innovative Uses of LiDAR for Cultural Resource Investigations

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Overview

> Methodology
  - Platforms
  - Data acquisition

> Case Studies
  - Archaeology
  - Historic Architecture
  - Cultural Landscapes

> Future Directions
  - Archaeology
  - Historic Architecture
Platforms

> Terrestrial
  - Standard (static)
  - Mobile

> Aerial
  - UAV
  - Fixed wing
  - Satellite
Roadway Data
Project Examples
Project Examples

> Rock Shelters
  1. Current Conditions
  2. Monitoring
  3. Mapping
Project Examples

> Rock Shelters

1. Mapping products
2. Integration with other data sources
Project Examples

> Satellite Data
  1. Monitoring
  2. Mapping
  3. Protection
  4. Access
Project Examples

> Satellite Data

1. Monitoring
2. Mapping
3. Protection
Project Examples

> Satellite Data
  1. Monitoring
  2. Mapping
  3. Protection
Project Examples

> Structures

1. Documentation
2. Mapping
3. Monitoring
Project Examples

> Structures

1. Documentation
2. Mapping
3. Monitoring
Project Examples

- **Structures**
  1. Documentation
  2. Mapping
  3. Monitoring
Project Examples

> Structures

1. Documentation
2. Mapping
3. Monitoring
4. Products
Concluding Thoughts/ Future Directions
Maximizing data potential

> Get the most bang for your buck!

1. Understanding streetscapes and potential impacts
2. Bridges-document current condition, utilize existing data sets to satisfy future preservation needs
3. HABS/HAER documentation
4. Conditions assessment of historic buildings
Considerations

> How can we best use the data that is already available?

1. Assessment of project areas in advance of conducting fieldwork
2. Assess properties with limited access
3. Monitor known resources
Future Directions

> Transportation Research Board
https://annualmeeting.mytrb.org/Workshop/Details/5329

1. Cultural Resources
2. Natural Resources
3. Maximizing Potential
Thank you

For more information

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