

### Ariel Kousgaard | Associate III



#### EDUCATION

- University of Nebraska-Lincoln
  - Bachelor of Science, Architectural Engineering, Structural Emphasis, 2012
  - Master of Architectural Engineering, Structural Emphasis, 2013
  - Doctor of Philosophy, Architectural Engineering, Structural Emphasis, 2016

#### PRACTICE AREAS

- Facade Assessment
- Masonry Assessment
- Historic Preservation
- Repair and Rehabilitation Design
- Terra Cotta Assessment
- Stone Evaluation
- Stone Testing

#### CONTACT

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#### EXPERIENCE

Ariel Kousgaard joined WJE in 2016 with six years of academic research experience in progressive collapse, masonry analysis, stone condition assessment, and historic rehabilitation. Dr. Kousgaard's research included the use and durability of fiber-reinforced materials in masonry retrofits and historic rehabilitation, including the use of these materials in ancient structure rehabilitation.

Since joining WJE, Dr. Kousgaard has had a wide range of experience in the investigation and repair of building enclosures, particularly experience with exterior cladding issues related to brick masonry, terra cotta, and stone. She has taken part in numerous building enclosure condition surveys, repair designs, and preparations of drawings and specifications. She has also performed construction observation and testing services during repairs. These services have included the review of in-progress repairs and quality assurance during construction.

Dr. Kousgaard has also performed laboratory testing of stone cladding materials to evaluate structural performance. This includes testing of materials in accordance with the standards of ASTM International.

#### REPRESENTATIVE PROJECTS

##### Masonry Facade Assessment and Repair

- Missouri State Capitol - Jefferson City: Stone facade condition assessment, documentation, repair design, construction documents, and construction observation
- Clark Adams Building - Chicago, IL: Brick masonry facade repair observation
- Old Chicago Main Post Office - IL: Construction observation of stone, brick, and terra cotta facade repair
- Fulton County Courthouse - Atlanta, GA: Terra cotta condition assessment, documentation, repair design, and construction documents
- On Leong Merchants Building (Pui Tak Center) - Chinatown, Chicago, IL: Inspection and repair design of terra cotta and brick masonry; cast iron, concrete, and steel entrance canopy inspection and repair design

- Theater Place - Buffalo, NY: Terra cotta condition assessment, documentation, and repair scope
- Commerce Bank Building - Peoria, IL: Terra cotta assessment, repair design, construction documents, and construction observation
- Gallery of Park Ridge Condominiums - Park Ridge, IL: Brick masonry condition assessment, repair design, construction documents, and construction observation
- Crestwood Place - Northbrook, IL: Brick masonry assessment, repair design, construction documents, and construction observation
- Salvation Army Rehabilitation Center - Rockford, IL: Brick masonry condition assessment, repair design, and construction documents
- Sisters of St. Joseph of Carondelet - St. Louis, MO: Brick masonry repair design
- Illinois Executive Mansion - Springfield: Masonry, concrete, and steel repair design and construction documents

##### Stone Cladding Evaluation and Testing

- 980 N. Michigan (One Magnificent Mile) Building - Chicago, IL: Investigation and documentation of thin granite veneer
- 600 Travis - Houston, TX: Investigation, testing, and repair of thin granite cladding
- Smithsonian National Air and Space Museum - Washington, D.C.: Laboratory strength, durability, and bow testing of marble panels
- Water Tower Place - Chicago, IL: Survey, documentation, and testing of thin marble panels
- Obama Presidential Library - Chicago, IL: Testing and evaluation of proposed stone cladding options and long-term durability

##### Historic Preservation

- Bissel Street and Grand Avenue Water Towers - St. Louis, MO: Brick, stone, and cast-iron condition assessment
- Historic San Juan City Walls - San Juan, PR: Stone and brick structure condition assessment