



# KAOLIN MUSEUM DESIGN CHARRETTE



Washington County, GA is known as the Kaolin Capital of the World! Community leaders have proposed building a natural history museum with focus on the fine white clay and the geology, industry, and culture surrounding it. The UGA Archway Partnership enlisted CED's help in planning the museum. A team of nine students – including Landscape Architecture, Historic Preservation and Geology students – participated in a design charrette to envision museum possibilities at three different sites in Sandersville: a historic school, a vacant parcel downtown, and a 99-acre lot on the Fall Line Freeway. Each site presented its own challenges and opportunities, and defined the type of exhibits and programming that would work best.

**OCTOBER 19-20, 2018**





## Site Tours

The UGA team toured Deepstep, GA, to visit active kaolin mines, as well as restored landscapes that were once active mining pits. The soft white clay was too tempting not to touch, confirming a key element needed in the museum!



## Potential Museum Sites

Three locations in Sandersville were used for the design exercise, representing the kind of sites where a museum could be located – an underutilized historic school building, a vacant block in downtown Sandersville, and a 99-acre site on the Fall Line Freeway.



**Sandersville School**



**Downtown**



**Fall Line Freeway**

# Sandersville School

**UGA Team:** Carolina Angulo, Master of Landscape Architecture  
Kelly Cronin, PhD Geology  
Emma Keethler, Master of Historic Preservation



This campus was active as Sandersville High School from 1939-1959, then as Sandersville Elementary School from 1959-2009. Having served generations of Washington County children, it needs new functionality to preserve the building for future generations.

## Opportunities

- Existing building in need
- Scalable (start small, expand)
- Community support for renovation
- Mixed-use community space
- Links local history to kaolin

## Challenges

- Historic floor plan/classroom arrangement
- Variety of uses desired
- Rehabilitation needed



## School Site Team Goals

*A museum at the school site should:*

- Convey an understanding of geologic history in Washington County
- Focus on historic and modern mining practices locally and the social context
- Respect the historic character of the school
- Integrate the museum into the building as a multi-use community center



**Geology & Industry**



**Social History**



**Respect the Building**



## Case Studies

Plains High School  
President Jimmy Carter  
Museum and  
community event space



Old Davie School, Davie FL  
School museum and Everglades frontier development



Old School Square, Delray Beach FL  
Shopping & entertainment district with gymnasium turned event space



# SCHOOL SITE – EXISTING CONDITIONS



# SCHOOL SITE PLAN



RAILROAD

KAOLIN PIT  
PLAYGROUND

GREENSPACE +  
FESTIVAL PARKING

WALKING TRAIL

BASEBALL FIELD +  
PERFORMANCES

PARKING

NORTH AVE.

SPARTA RD.

LINTON RD. S.

ARTHEN ST.

SHINGTON AVE.

Heritage Inn  
Community Health Center

North Ave  
Station  
Splash Pad

Grace Episcopal  
Church

Medical Offices

Ocoee Center  
(government)

Medical Offices/Sp

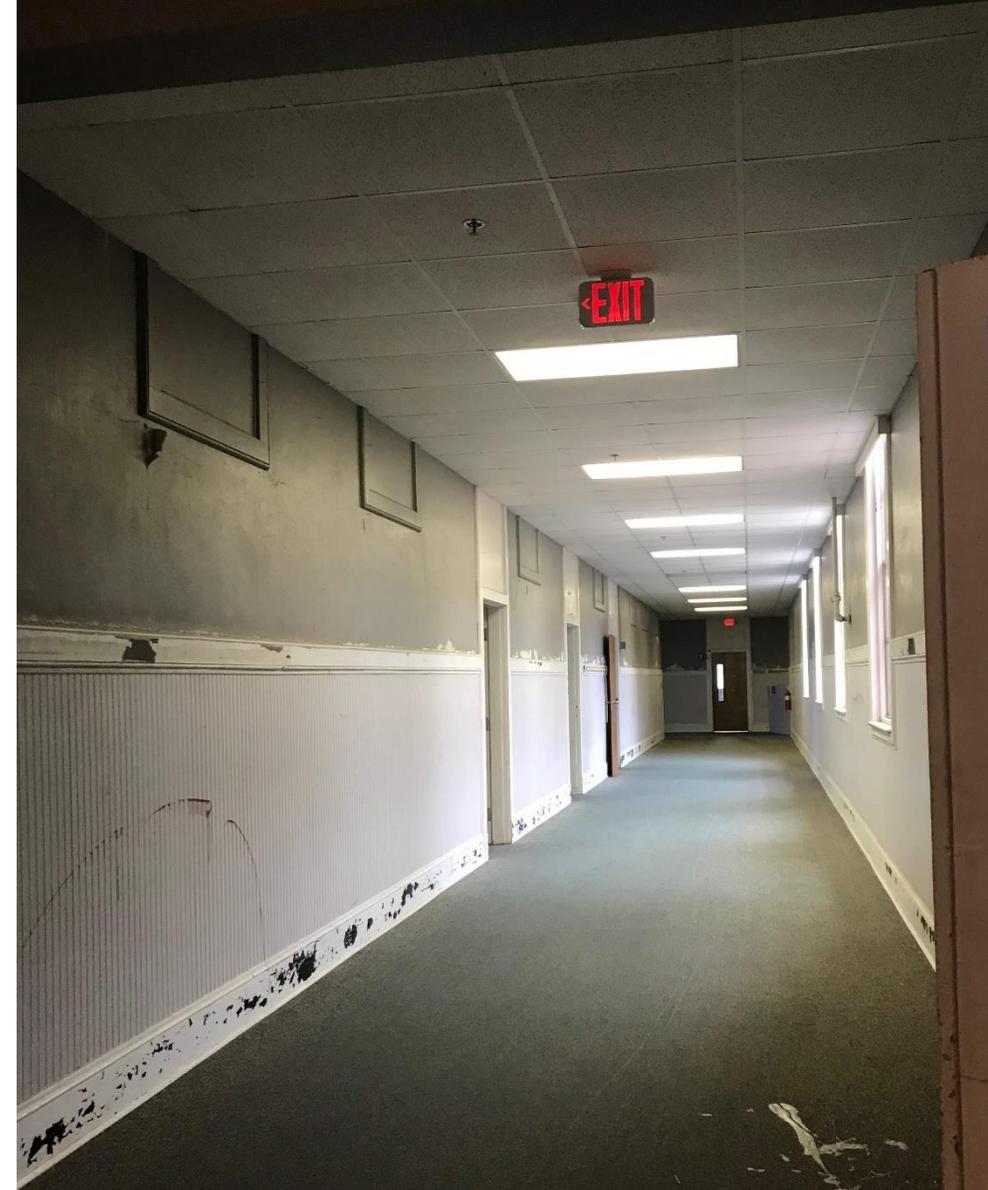


Restore front block as historic classrooms, galleries, offices, etc. that maintain the building's original features.





The auditorium is scheduled to be restored in 2019 as a community venue for performances, films and events, enhancing the usability of the building for a variety of functions.



Classroom wings should be used for museum spaces and should maintain their original configuration. Long hallways and the series of individual classrooms could be unified as a “railroad ride” through time. Hallway walls and/or ceilings should give the impression of taking a Sandersville Railroad ride through the museum, directing the flow of visitor traffic.

Geologic Timeline Rooms | Classrooms retain their character and become exhibit spaces.



Image credits: Carolina Angulo

An Eocene Seas Room (L) showcases the area's marine past with underwater lighting effects, while another room (R) focuses on kaolin industry mining and processing techniques.



## Courtyards

Utilize greenspace between auditorium and classroom wings for outdoor courtyards





**Kaolin Pit Playground**  
An example from the Wheal-Martyn Clay Works Museum in Cornwall, England, shows a playground that simulates going down into a kaolin pit. This type of play pit should be located nearest the recreation area adjacent to the school property.

# Downtown Site

UGA Team: David Evans, Master of Landscape Architecture  
Sarah Hutchinson, Master of Landscape Architecture  
Sydney Shatz, Bachelor of Geology



A predominately vacant lot one-block from the courthouse square in Downtown Sandersville was an excellent study site to explore how a contemporary science museum building could fit appropriately within a historic downtown context.

This block bridges the transition between dense 19<sup>th</sup>-century brick commercial buildings to its west and a more open arrangement of railroad yards, cotton gins and warehouses to its east.



This area of downtown Sandersville has both beautifully restored blocks and underutilized zones.

## Opportunities

- Location: heart of Washington County
- Flat topography
- Size (neither too small nor too large)
- Pedestrian access
- Proximity to social aspects of downtown

## Challenges

- Limited area of development
- Some visual blight
- Parking off-site





Formation of Kaolin

Local Connections

Transportation



Downtown Site Team Goals | *A museum downtown should:*

- Convey an understanding of processes and products of kaolin
- Connect mining to local transportation industry
- Provide an outdoor learning environment for visitors

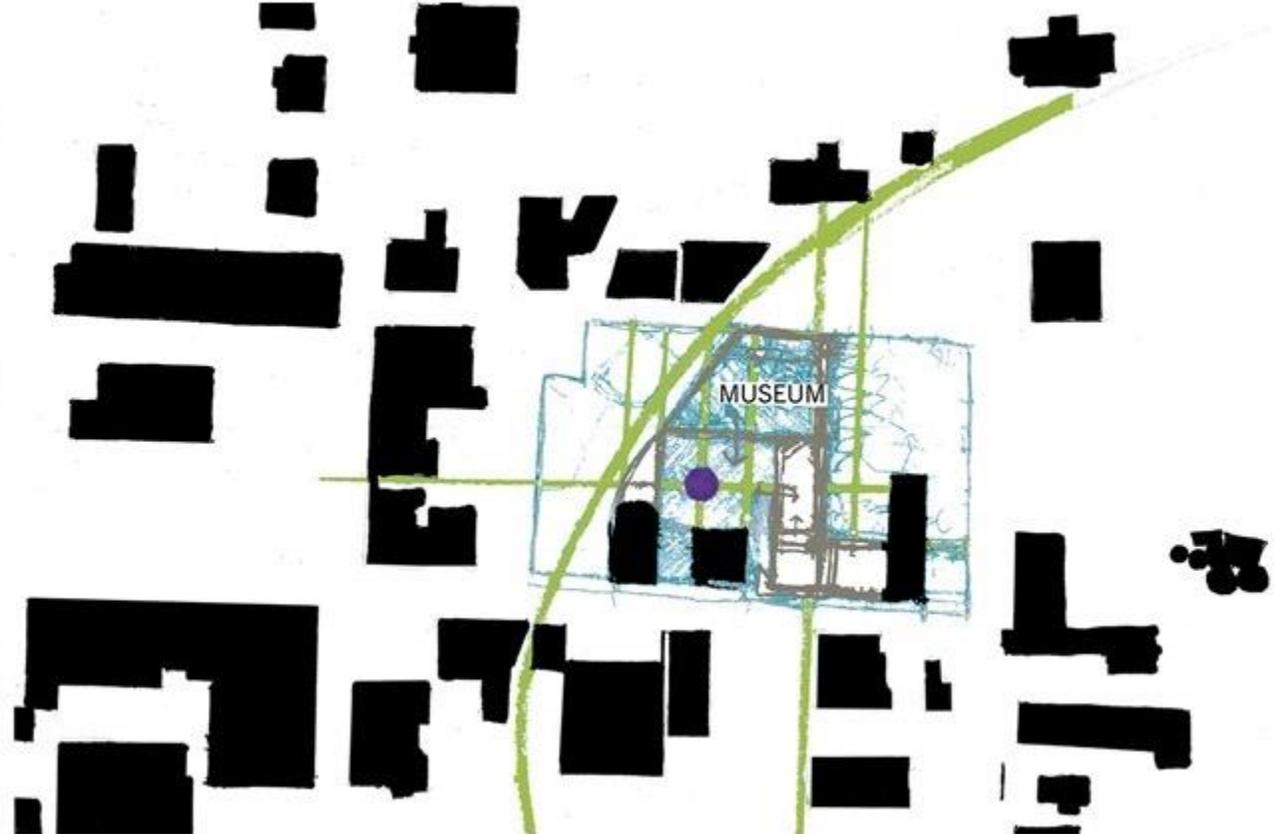


Figure Ground Study

Recognizing the historic pattern of development informs how a new building can fit in. The site team used downtown building densities, alignment, and the curve of a once-extant railroad line to locate and connect a new building within the block.

# DOWNTOWN SITE PLAN



Image credit: Sarah Hutchinson



Image credit: Sarah Hutchinson

Entrance plaza

Draws inspiration from settling ponds and kaolin's hexagonal crystal structure.



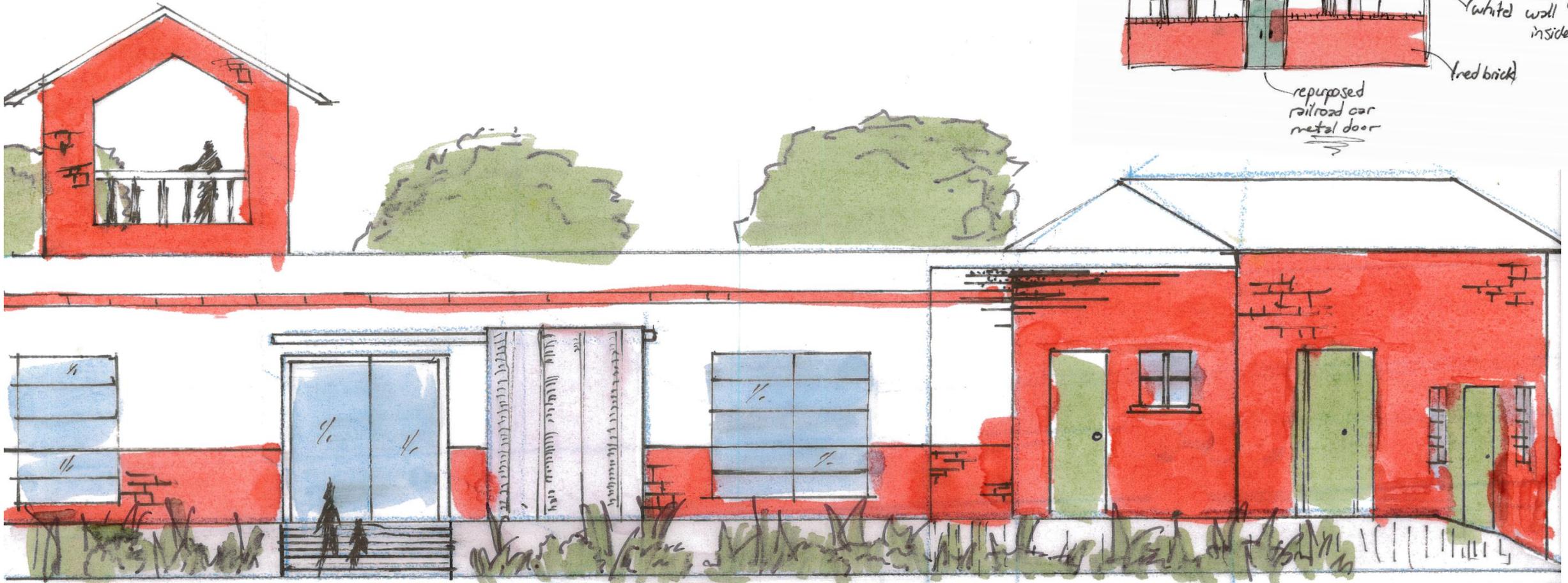
Architectural Inspiration  
Any new building in this block  
should be inspired by surrounding  
architecture – both formal brick  
styles and vernacular industrial  
designs – to be contemporary,  
yet compatible.



## Architectural Inspiration

- Piecemeal geometry
- Building is white, for a more modern look and to represent kaolin
- Red brick as an accent, nod to historic courthouse and other buildings

- Industrial metal sliding doors
- Arched windows mimic adjacent building
- Overlook tower on roof echoes aesthetic of adjacent cotton gin, provides view of industrial past

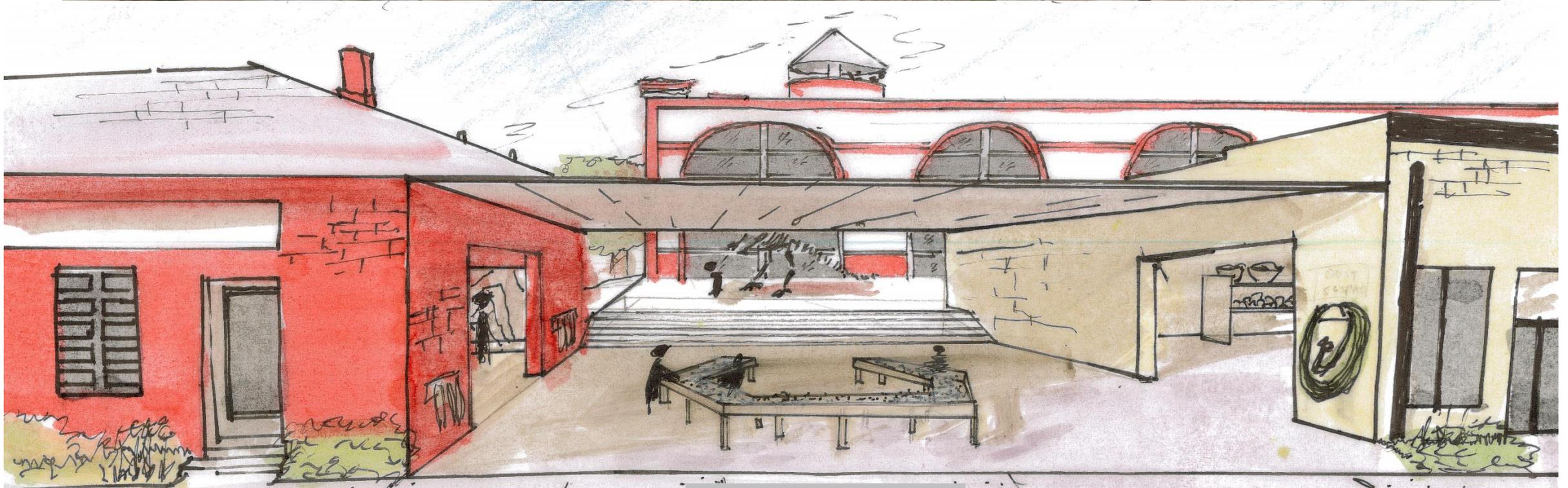




Red brick railroad depot



Accompanying building, white-painted brick



Kaolin Kids' Zone concept



## Interactive Playground

The railyard across Smith Street inspires the playground theme, as do fossils and digging pits.

# Fall Line Freeway Site

UGA Team: Bear Jordan, Master of Geology  
Jacob Schindler, Master of Landscape Architecture  
Xiao Tan, Bachelor Landscape Architecture



This 99-acre, undeveloped site on the Fall Line Freeway provided a case study for the conceptual development of a kaolin museum in a “the sky’s the limit” context.

## Opportunities:

- Super-sized site
- No restrictions
- Wetland on site
- Highway proximity
- Opportunity for trails
- Expand food options
- Scalable to park model

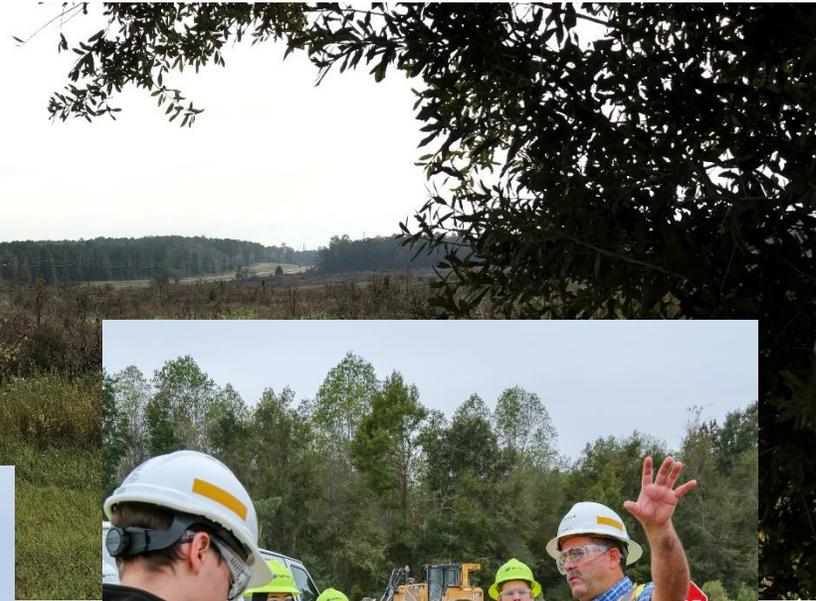
## Challenges:

- Sensitive ecology
- Transformer station adjacent
- Overly large site
- Highway proximity
- Far from downtown
- No other draw to area



Freeway Site Team Goals | *A museum on this site should:*

- Educate on climate, biogeochemistry, oceanography, fossils, geophagy
- Connect local industry to global distribution
- Demonstrate land restoration and provide outdoor recreation space



Earth Science  
Chronology

Global Perspective

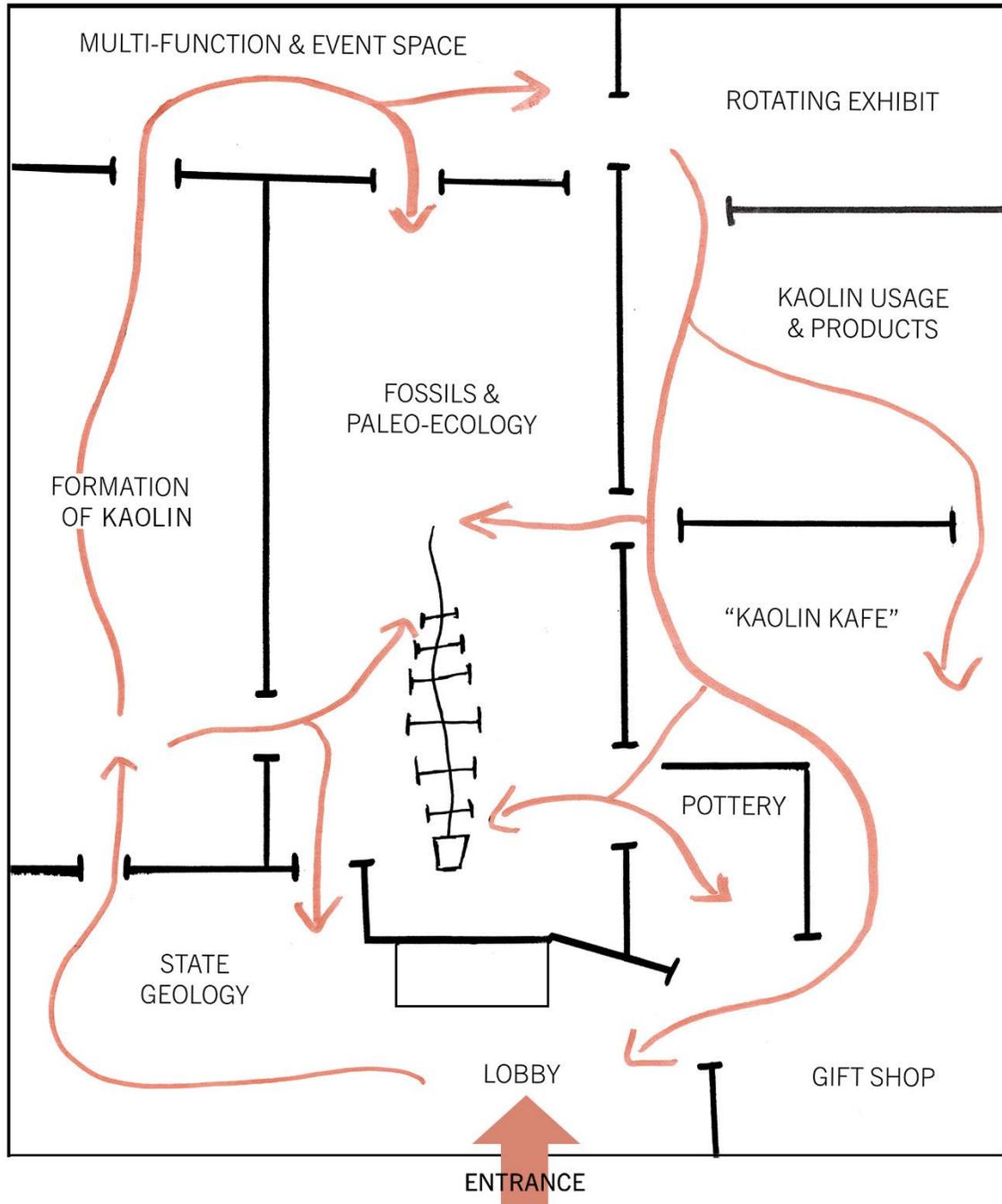
Extend Education  
Outside

# FALL LINE FREEWAY SITE PLAN

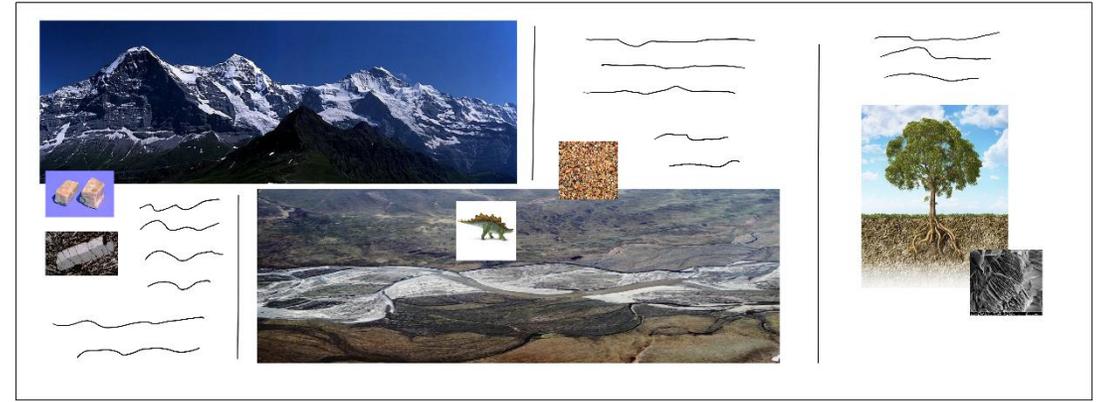
At the heart of the Fall Line Freeway Site Plan is the desire for an educational space that extends beyond the physical footprint of the museum. This not only takes advantage of the large property, but also places earth science education outside.

Extending education beyond classroom settings encourages visitors to engage in critical thinking of the environment they live in and see every day, creating a stronger association to learning. In order to achieve this the museum will flow from indoors to outdoor areas and blend education and recreation in exciting and challenging ways.

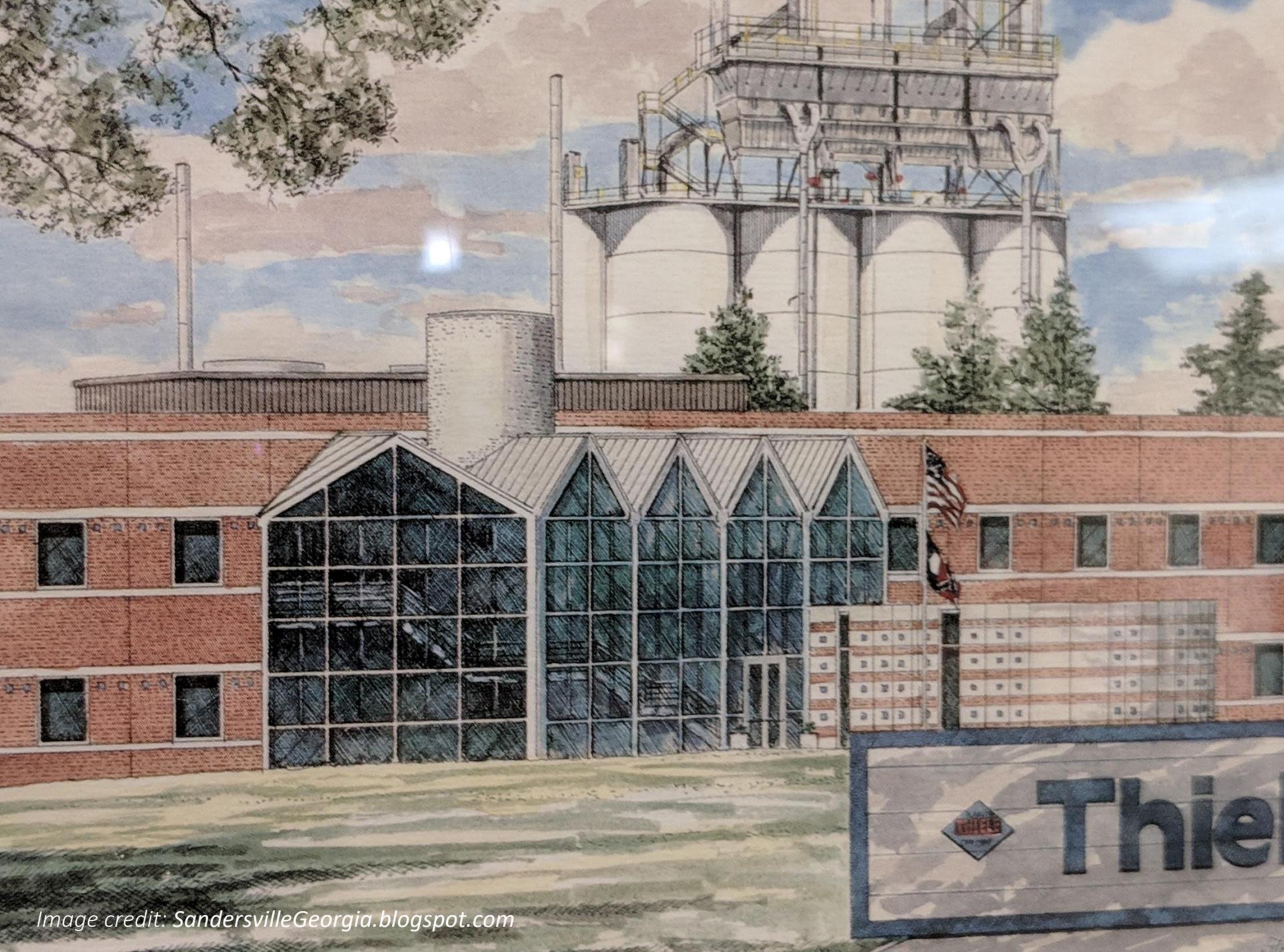




Kspar to Kaolin



Chronology and flow of Exhibits



## Architecture

The aesthetic of the museum will reflect a desire to connect the local kaolin to a global perspective in order to expand the museum beyond its physical borders with large open spaces and large windows offering high visibility into the outside world. The museum will reflect the history of the Washington County by invoking aspects found in its historic mining buildings.

The historic Thiele industrial plant (L) was inspiration for the front facade of our museum. This industrial building incorporates elements of brick, glass and metal that is central to our design.

## Indoor Exhibits

A industrial-inspired façade leads to an expansive space with life-sized fossil replicas.

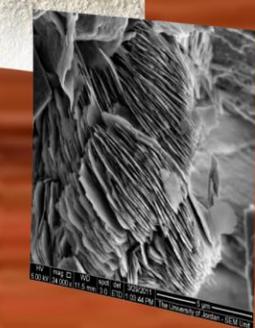
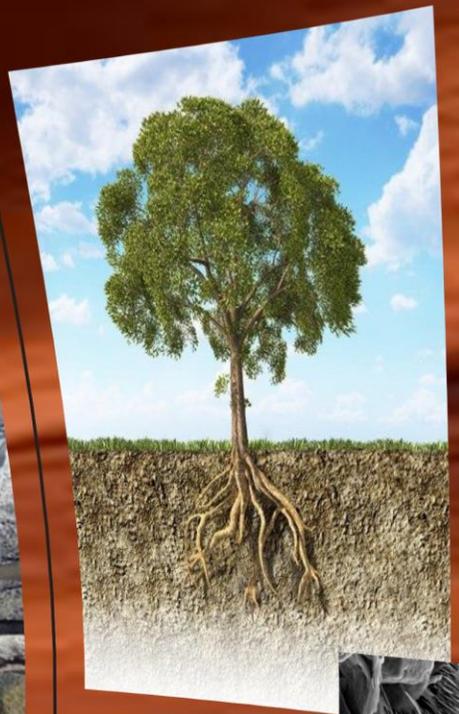
Upon walking into the museum, visitors will be welcomed by dinosaur fossils hovering just behind the information desk allowing a clear view into the heart of the museum and attracting patrons into the space.





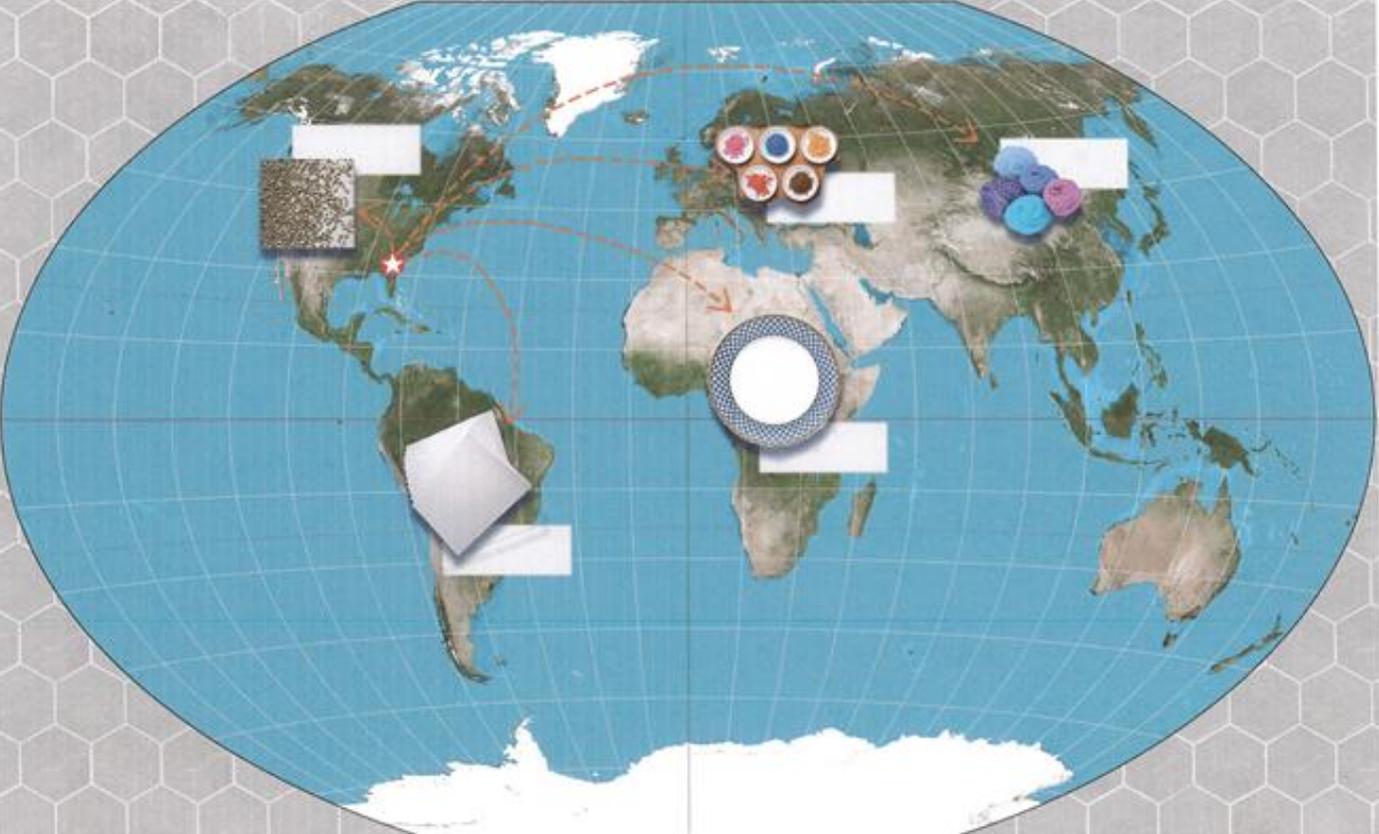
## Indoor Exhibits

A tactile mural shows the evolution of kaolin minerals under a large glass canopy. visitors will be exposed to alpine mountain and braided river environments that at one point were local to Georgia but have long since degraded into the piedmont and coastal plain that we see today. Linking the tiny clay mineral with global cycles such as oceanography, climate change and plant communities expands the scope of kaolin into a global context.



# Indoor Exhibits

Showcase the uses and distribution of kaolin across the world, as well as in everyday lives.



## Indoor Exhibits

The “Kaolin Kafe” introduces the idea of *geophagy* – mineral consumption and surface chemistry – envisioned as an interactive exhibit on minerals that are safe to taste, such as halite (table salt), kaolinite, and sylvite. In addition, this exhibit will include a cultural history of mineral consumption and anecdotal antimicrobial effects. The café would include “normal” concessions as well.





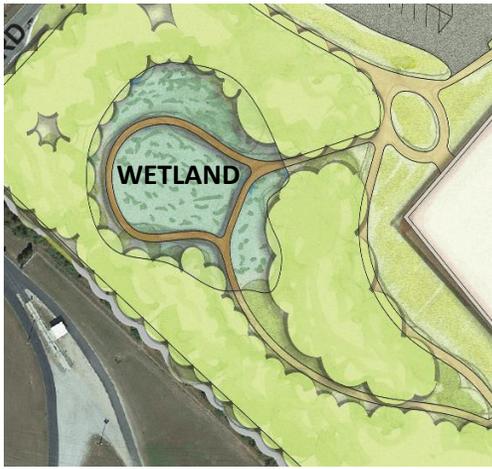
Outdoor Exhibits  
The Fossil Dig engages visitors in hands-on exploration,  
linking kaolin overburden to paleontology.

*Image credit: Jacob Schindler*



Outdoor Exhibits

A playground could mimic a dumptruck (as a slide) depositing material in a kaolin pit.



## Outdoor Exhibits

A trail through the wetland teaches about ecology and land restoration practices as well as the “social contract” mining companies must maintain with the surrounding community. A boardwalk plus minimal signage or an audio tour can showcase the importance of the industry to be environmentally conscience while providing outdoor recreation.





Celebrating the conclusion of the charrette with the BEST milkshakes at the one and only Dairylane!

To learn more about public service and outreach at the UGA College of Environment and Design, visit [www.ced.uga.edu/ps](http://www.ced.uga.edu/ps)

Visit the Archway Partnership at [www.archwaypartnership.uga.edu](http://www.archwaypartnership.uga.edu)