The Community Design Assistance Center (CDAC) is an outreach center of the College of Architecture and Urban Studies at Virginia Tech that assists communities, neighborhood groups and non-profit organizations in improving the natural and built environments through design, planning, and research. Through the integration of the learning and working environment, the Center will execute projects that link instruction and research and share its knowledge base with the general public.

CDAC Project Team Members
Kim Steika, Landscape Architecture Project Coordinator
Kent Hipp, Undergraduate Student, Landscape Architecture
Cotter Spratley, Undergraduate Student, Landscape Architecture

Community Design Assistance Center
101 South Main Street               Blacksburg, Virginia 24060
p: 540.231.5644             f: 540.231.6089         http://cdac.arch.vt.edu
ACKNOWLEDGMENTS

CDAC would like to thank the *Dante Lives On* board and members for their help, support, and guidance on this project. The CDAC team would also like to recognize the following individuals:

Martha Chapman, Department of Conservation and Recreation
Craig Kaderavek, Regional Director of Forest Operations, The Forest Group, LLC
Mark Kidd, Board member, Dante Lives On
Neal Kilgore, Virginia Outdoor Foundation
Mintai Kim, Landscape Architecture Professor, Virginia Tech
Steve Mullins, Department of Mines, Minerals, and Energy
Randy Rose, Virginia Tourism Corporation

Project funded by:
TABLE OF CONTENTS

I. Introduction & Project Intent.................................................................4
II. Dante History..................................................................................5
III. Design Process..............................................................................7
IV. Site Inventory & Analysis...............................................................9
V. Conceptual Master Plan.................................................................17
   A. Regional Scale
   B. Town Scale
   C. Site Scale
   D. Human Scale
VI. Conclusion....................................................................................24
VII. Appendix......................................................................................25
INTRODUCTION AND PROJECT INTENT

Dante is a small community in Russell County, Virginia. Although today its population does not exceed 1000, it was once a thriving community rich from the abundance of coal layered in the mountains. The community boasted a population of over 4000 and served as the headquarters of the Clinchfield Coal Corporation. As is typical of many Appalachian coal towns, Dante experienced a boom and bust scenario, with the extraction of resources and eventual exodus of the economic driver, the mining industry.

The Dante Lives On 501(c)3 Corporation was founded by residents in 2003 as a way to structure the community by providing central leadership. Their mission is “to improve the quality of life in the region by preserving, restoring, and promoting its cultural heritage while finding new ways to encourage growth and development in its communities.” Steps they are taking to fulfill this call include:

- Creating of the Dante Coal and Railroad Museum
- Hosting of an annual reunion
- Building of a outdoor stage for performing artists
- Building of the Dante Coal Miner’s Memorial
- Partnering with Russell County Chamber of Commerce to host an open-air farmers market
- Representation on the Southwest Virginia Coal Heritage Trail planning committee

The Community Design Assistance Center (CDAC) was enlisted to aid Dante Lives On with design recommendations for a multi-use trail that will support the goals of the community organization. This assistance included conceptual trail master planning, experiential representation of the trail through sketches and perspectives, and identification of opportunities for regional trail connections.
Early land speculation in 1787 via London, England marked the first contact Europeans had with this area. The three forks of Lick Creek prompted the first settlers in 1808 to name the land Turkey Foot, and substantial land clearing for homesteading had begun by the mid-1800s.

Late 1800s land surveys revealed great coal and timber reserves in Southwest Virginia. In the rush to possess land in this resource rich region, a series of companies traded ownership of vast tracts of land including Turkey Foot. The land eventually was purchased by the Dawson Coal and Coke Company of which William Joseph Dante was the Vice President. The present day community bears his name.

With industrialization occurring rapidly across the eastern states, the Dawson company initiated rail construction into Dante and secured the area’s place in history. However, their dealings with Dante were fairly brief. The future land owner, The Clinchfield Coal Corporation and president George L. Carter would have a much larger impact. He had a vision of making a rail connection between the Southwest Virginia coal fields and the industry of the northeast. This idea was by no means original, but he had the persuasive ability to convince those with capital to make it happen.

The rail connection was an engineering feat and completed in 1915 after construction of 22 tunnels and eight bridges. Coal mining was already extensive as recorded in a 1906 survey by the USGS. The additional infrastructure of the railroad caused Dante to boom.

1. All text and photographs in this section taken from Memories From Dante The Life of a Coal Town, edited by Katharine C. Shearer, 2001.
Their coal sold well, and the community reached a peak in the late 1920s. The company supported amenities such as Company Store B, Dante Theatre, a train passenger depot, The Clinchfield Inn and meeting hall, the Union Church, and Company Hospital in Hospital Hollow. In 1937, “Clinchfield properties at Dante included 516 dwellings and 59 company buildings, for a total of 575 buildings” (Shearer 214). The country entered the Great Depression and citizens of Dante struggled to survive like most communities.

Following World War II, the mining labor force was drastically reduced due to mechanization. Active mining in Dante closed down entirely in 1959. The company transferred its headquarters to Lebanon in 1972 and local miners who continued working did so in other area mines. The company deconstructed many of its commercial buildings following the 1970s, leaving the central downtown space ghost-like. Most mining structures, such as the tipples and small rail lines were also dismantled to reclaim materials.

Racial and economic divisions were apparent in the geography of the town. Each hollow was distinct, with its own elementary school, church, and eccentricities. Workers lived in the vicinity of the mine they operated. Certain races lived together creating cultural subdivisions. Company leadership owned houses on higher ground, specifically on Roanoke Hill. One constant cultural element was baseball. It was an important part of town social life. The company team was very successful and they helped build Dante’s reputation across the state.
DESIGN PROCESS

The CDAC team began the project with an initial meeting with Mark Kidd, board member of *Dante Lives On*, in September 2008. After discussing the project aims and vision, the group, along with Martha Chapman of the Virginia Department of Conservation and Recreation (DCR) spent the morning exploring possible trail routes and photographing portions of the site. The CDAC team next met with staff from the Cumberland Plateau Planning District Commission to discuss the project and possible mapping resources available. The team also met with the *Dante Lives On* board that evening to discuss the project and possible routing suggestions and connections.

Upon returning the Blacksburg, the CDAC team continued to gather base map information, including aerial photography and mapping made available by the Virginia Department of Mines, Minerals, and Energy (DMME). The team prepared base maps, researched the history of the community and the site, and developed site inventory and analysis drawings.

After preparing preliminary design concepts for the trail, the CDAC team traveled back to Dante in November 2008 to present the concepts along with the site analysis findings for comments and suggestions from the *Dante Lives On* board. The CDAC team also met with Neal Kilgore, area resident and Virginia Outdoors Foundation staff person, to discuss the project and possible regional connections.

The CDAC team refined the concepts based on feedback from the board and presented final concepts on December 15th, 2008. The CDAC team was also able to meet with Craig Kaderavek, Regional Director of Forest Operations for The Forest Group, LLC. The
Forest Group, LLC owns the land where _Dante Lives On_ hopes to locate their walking trail. Mr. Kaderavek communicated support for the general trail concept. Permission for implementation would be contingent on the Southwest Regional Recreation Authority both holding the trail easement and overseeing trail maintenance.

This short, support report was prepared to document the design process and describe the concepts prepared by the CDAC design team.
SITE INVENTORY AND ANALYSIS

The CDAC team visited the site several times to assess existing circumstances and potential trail possibilities. During the first site visit in September the team walked a section of small roads created during mining operation. These roads were cut at a certain elevation and generally follow contours. They are some of the last remaining visual evidences of mining. Although this history may not be visible at first glance, it only takes a second to realize the immense undertaking that took place in Dante.

While walking the roads, the CDAC team observed a few architectural remnants. Several steel frame structures were visible near the beginning of the trail. Two mine portals were seen along the cut benches. Both were sealed, although one had a small steel door installed which can be unlocked and opened. Each was accompanied by a level space at the entrance to the portal. A set of coal cars remain on another piece of property not far from the mine site. Around 10 cars sit stacked in the woods collecting leaves. These cars are one of the few mechanical pieces left behind by Clinchfield Corp. They are marked with a 1948 date, and could be reused for a historical exhibit.
The site is home to a variety of plant life, including mixed hardwood forest, a valuable renewable resource. It covers the majority of the area.

Large open spaces once inhabited and used as for mine operations are now covered in Kudzu. The plant is aggressively invasive and beginning to smother the forest at the edge of its growth. This plant is a very real problem that must be addressed for success of a future trail. In some areas, Poison Ivy is very prevalent. This is another simple maintenance issue that must be addressed.

In other spaces where light reaches the forest floor, a variety of herbaceous perennials and shrubs grow. Joe Pye Weed and Goldenrod were in bloom during the first site visit. These small native plants generally border the edge of the road and can create either an interesting edge, or an overgrown tangle. Also along this edge is another peculiar and interesting ecosystem, a perched wetland. A perched wetland is a wetland that exists away from a stream or river influence, with water made available by general drainage. This could be a place of interest for research into isolated aquatic life of a post-industrial area.

The arrangement of the road layouts and the richness of plant life create a variety of spatial circumstances. Specifically, there are degrees of enclosure existing naturally along the roads. As is illustrated in Inventory - Degrees of Enclosure 11x17 Foldout, the trail provides at least five distinct spatial conditions, one being the low growth typified by the herbaceous, shrub and kudzu growth. This creates a narrow corridor. Within the hardwood forest, tree growth creates a fully enclosed canopy. This ceiling is often incomplete directly above the trail allowing a view of the sky. The trail also traverses areas where forest only grows on one side, creating a view across
the valley. There are gateways along the trail. This is the tightest enclosure and typically occurs between two distinctly different areas. In such occurrences vegetation reaches close into personal space, and can cause a feeling of uneasiness. These are important transitions, but must be maintained in a way that alleviates this problem.

The CDAC team used GIS data and software to analyze the existing conditions of the site. This information was helpful in analyzing the site’s soils, topography, and overall elevation. Our findings are found on the Site Analysis 11x17 Foldouts. Of note, we found that unstable fill soil coincide with kudzu growth in Upper Straight Hollow. This raises questions for structural stability of future construction in certain areas.

The CDAC team also created a 3-dimensional model of Dante and surrounding area topography. This model was helpful in visualizing expanded trail opportunities and has great potential as an interactive representational tool.
Dante Area Context

Arrows - give location and direction of photograph

A Dante Baseball Field
1 Trail Access Point
2 Field
3 Public Pavilion

B Downtown Dante
1 Dante Coal and Railroad Museum
2 Trail Access Point
3 Post Office

INVENTORY - Photo collage
INVENTORY - Photo collage

**Project Study Area**

- Arrows - give location and direction of photograph

**Dante Town Context**

- Dante Downtown & Coal and Railroad Museum

**View across the potential trail head.**

- View towards trail head across open space controlled by kudzu. On the right side of the photo, the bench can be seen continuing on the opposite side of the valley.

- View from road across the potential trail head.
Gateway - often bordering two different types of enclosure

Dense vegetation borders the trail; can create a feeling of uneasiness.

Trail is bordered by canopy on one side low growth on the opposite; often creating a view.

Trail is bounded by deciduous forest with incomplete canopy coverage of trail allowing direct sunlight / dappled light to reach the forest floor.

Trail is under full canopy and full shade.
Aspect Analysis
The primary trail route will begin by climbing up a northern facing slope, but the majority of the trail will run along south and south western facing slopes. The direction of these slopes provides the highest amount of sunlight for use throughout the year. The northern side of the trail loop will vary greatly in aspect due to its meandering nature in and out of hollows, while the southern side will face a mostly north and northwest aspect.

Soils Analysis
The soils in the area of the trail head are all rated very limited for developmental potential. Extensive mining throughout the area has left the majority of soil at lower elevations as unstable, rocky, fill soil. Development of any large structures in the area would not be recommended, but light construction such as a pavilion and parking area would be acceptable.
Slope Analysis

Based on the range of slopes in the area of the trail head, there is little potential for development. However, the trail head does have enough area of low percentage slopes to accommodate limited parking and picnic structures. Although the area of the trail contains a very steep range of slopes, the extensive bench mining allows for a fairly consistent grade.

Elevation Analysis

The elevation of the area ranges from 1,680 feet above sea level to over 3,000 feet above sea level. The trail head will be located at an elevation of roughly 2,120 feet and the trail will extend as high as 2,320 feet.
CONCEPTUAL MASTER PLAN

Primary Trail Loop
The primary trail route can be accessed from the end of Upper Straight Hollow and provides users with a 1.3 mile loop around what was once one of the larger mine sites in the area. A proposed trail head, with parking, covered shelter, and restrooms provide necessary supporting amenities. The trail head and associated structures could be used for family or community gatherings. The proposed trail follows remnant road beds left from coal mining and highlights moments in the history of Dante. Trail grades are generally mild, with gentle slopes not exceeding five percent except in a few areas. It is envisioned that the trail will be multi-purpose, supporting walking, hiking, and biking, and that it will be an outdoor recreation destination for residents and visitors alike.

Dante is rich in history and has many stories to be told. This trail offers one means of connecting current residents and visitors experientially with history. Trail users will walk along contour benches originally cut for mining operations. Resting points along the trail have been combined with opportunities for interpretive signage and observation of mining remnants. These way-points educate the trail user on particular aspects of Dante history, from its beginnings to present day.

Secondary Trail Loop
While mapping out the primary trail loop and examining the bench mining throughout Dante, the CDAC team realized an extended, secondary trail loop was possible. This route follows a contour bench cut at the same elevation as the primary trail, and extends around much of Dante, connecting the community and historic points of interest such as the baseball
field and the Dante Coal and Railroad Museum. This 6.4 mile trail loop provides an opportunity to explore, experience, and enjoy the entire community of Dante. It is envisioned that the Dante Coal and Railroad Museum would serve as the primary trail head for this loop, providing first-time visitors with an excellent introduction to the community and its history before venturing out on the trail. This trail head would also be a convenient access point for many of the community’s residents.

**Regional Connectivity**

Dante’s proximity to Dickenson and Wise Counties makes the opportunities for regional connections both realistic and exciting. An old road along a dry creek bed intersects with the portion of the primary trail loop at its northern most point. This is an ideal location for an extended connection into Dickenson County. The Conceptual Master Plan-Possible Regional Connections 11x17 pullout identifies additional trail systems in adjacent Wise County that could possibly link to the Dante trail system in the future.
This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

Trail Possibilities:

There are extended possibilities for trail connectivity within Dante. The extensive bench mining remnants create an opportunity to place a loop on contour linking the entire town. Using the existing infrastructure, this once degraded landscape can be used to create one of restoration through physical and social activity.

Visitors will have a chance to experience Dante in a more thorough fashion by utilizing the existing Dante Coal and Rail Museum as a possible trailhead and information center. This point works well as a launching point to explore places of significance in Dante's history, including the baseball field and the mine site. Using these three anchors, people can enter and exit the system where they like. This larger scheme provides ample distance for longer exercise regimes and could possible create a larger interest for outsiders.

Aerial Imagery © 2006-2007 Commonwealth of Virginia
Photos courtesy of Kent Hipp and Cotter Spratley.
CONCEPTUAL MASTER PLAN - Narrative Interpretation

Downtown Dante

NARRATING THE PAST:
A record of mining result in the landscapes surrounding Dante. The trail reveals the rich history of the town through memory and experience of the town’s geologic and unique landform.

"Downtown Dante"

Outdoor Restrooms

Gravel Parking Area

Roadside Punch

_lded Mine Portal

Reprinted from use Creek

Primary Trail 6.29 Miles
Secondary Trail 0.64 Miles

_Multi-Entrance Signage

© 2023 Trail

Community Design Center

Community design
center

Dante, Multi-Purpose Trail
Dante, Virginia

Narrative Trail

Dante, Virginia
The steel bridge at #2 mines, about 1914. Motors pulled coal out of the mine, across the bridge, and through a short tunnel in the opposite mountain.

Trailhead Sign

Historical Sign

A potential waypoint for the primary loop of the trail exists at the town’s water tower. This area is relatively flat with an excellent view overlooking Dante. It would be an ideal location for a bench and signage explaining some aspect of the history of Dante.

CONCEPTUAL MASTER PLAN - Waypoint and Signage
A coal miner working piece-
work would work in a place
called a room. A room might be twenty-
four feet wide. There would be a roof, mostly
sandstone, above the seam of coal, and below the
bottom was the floor. It could be as low as thirty inches
or less. If it was less, it was almost unminable.
But generally around Dante, the coal was
from three to six feet thick.

-Raiford Blackstone

Trail Waypoint
On the primary trail loop there is an abandoned mine portal
that has collapsed inside but is still visible. If cleared and
graded it could become a waypoint offering seating and con-
tain signage explaining a process involved in coal mining.
CONCLUSION

The proposed Dante Multi-Purpose Trail offers opportunities for the community to continue to express, explore, and interpret its past, while creating a strong community resource in the present. The variety of spacial circumstances and plant life along the trail, as well as the physical remnants of mining make for a diverse and interesting experience and provide both community and county residents with enhanced outdoor recreational opportunities. As is essential with any recreational facility, the citizens of the community must take ownership, and readily use the trail to fulfill its potential.

View of Dante from the water tower.
Kudzu management
Kudzu management will need to be addressed as the trail is constructed and management planned for the future. Todd A. Groh, Assistant Director of the Forest Resource Management Division for the Virginia Department of Forestry provided a list of chemical company representatives and distributors used by the Virginia Department of Forestry.

Chemical Representatives:
Neil Loyd: G-Neil.Loyd@USA.dupont.com

Mike Fleming: michael.fleming@basf.com

Distributors:
Lew Merchant: lewmerchant@bellsouth.net

Jason Hockett: jason.hockett@uap.com