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67-250 Information Systems Milieux

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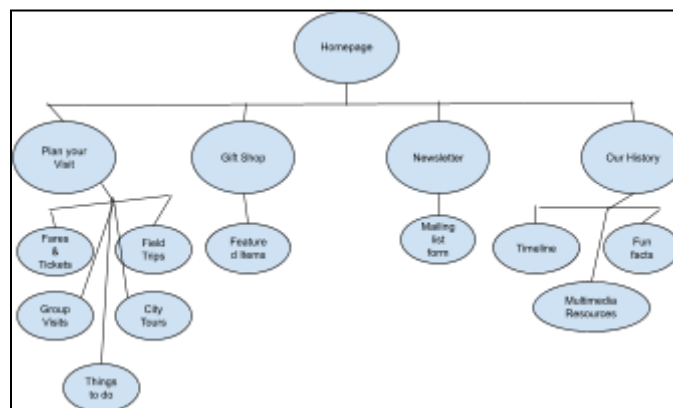
Design Summary

Introduction:

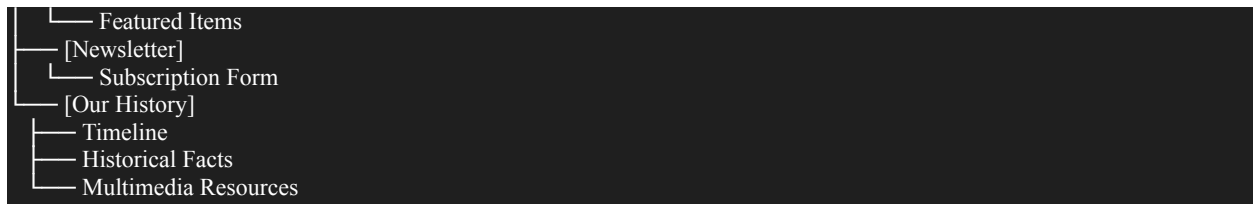
The Duquesne Incline website was designed to serve as both an informational resource and trip-planning tool for visitors to Pittsburgh's historic landmark. This design summary outlines the architecture and user experience considerations that create a seamless digital experience. Through careful structuring of content, intentional navigation design, and adaptive features for different visitor types, the website achieves its dual purpose of educating potential visitors while providing practical tools for trip planning. The following sections detail the visual hierarchy, information architecture, and evolutionary process that resulted in a site that honors the Incline's rich history while employing modern web design principles.

Visual Site Map:

The visual site map outlines a clear hierarchical structure for the Duquesne Incline website, with the homepage serving as the central hub branching into four main sections: Plan Your Visit (containing fares, group visits, and attractions), Gift Shop (showcasing souvenirs), Newsletter (for email/SMS subscriptions), and Our History (featuring timelines and multimedia resources). This intuitive organization ensures visitors can easily navigate between practical trip-planning tools, educational content, and e-commerce options, while maintaining consistent access to key information like hours, location, and contact details across all pages.



- [Homepage]
- [Plan Your Visit]
- Fares & Tickets
- Field Trips
- Group Visits (Bus/Schools/Patch)
- City Tours
- Things To Do
- [Gift Shop]



Information Architecture & Navigation:

The website's information architecture was structured to support intuitive navigation and efficient content discovery. A hierarchical organization was implemented with five primary categories (Home, Plan Your Visit, Gift Shop, Newsletter, Our History) designed to align with visitor goals and behaviors. The navigation system utilizes a card-sorting methodology to group related content logically, with all trip-planning resources consolidated under "Plan Your Visit." A persistent top navigation bar provides constant access to main sections, while contextual links facilitate deeper exploration. Key operational information including hours, location, and contact details is maintained in the sidebar across all pages to reduce cognitive load. This architecture was validated through tree testing, confirming users could successfully complete key tasks such as locating ticket prices or historical information within three clicks. The navigation design emphasizes clarity through conventional placement and labeling to accommodate diverse visitor demographics.

First-Time vs. Returning Visitors:

The design incorporates distinct yet complementary experiences for different visitor types. First-time users are oriented through descriptive introductory content and prominent calls-to-action for trip planning. Clear section headers and visual signposts guide newcomers through essential information. Returning visitors benefit from time-saving features including quick-access buttons to the gift shop and newsletter signup, along with expanded content layers in the history section. Both user types are served by consistent layout and information hierarchy, with subtle enhancements for repeat visitors such as highlighted seasonal events for subscribers and "quick facts" summaries accompanying detailed historical content. The FAQ section addresses both basic inquiries and technical details. Interactive elements maintain consistent behavior patterns throughout the site to reinforce user familiarity.

Design Evolution:

The design process progressed through three distinct phases, each informed by user feedback. Initial wireframes established a simple layout, with each page not having many interactive elements. Early usability testing identified opportunities to enhance visual hierarchy in the trip-planning section, resulting

in the development of a card-based design system for fares and schedules. During the prototyping phase, typography was refined through a combination of Playfair Display headlines and Raleway body text to improve readability, complemented by the addition of Material icons for universal recognition. Key refinements included simplified navigation labels based on card-sort results, expanded gallery interaction patterns, and optimized form fields for mobile completion. The development phase implemented these refinements while incorporating performance-focused features including lazy-loaded images and responsive tables. Final design decisions prioritized accessibility standards (WCAG AA compliance), cross-browser consistency, and load-time optimization—particularly important for visitors accessing the site from the incline's location with potentially limited connectivity. Throughout the process, aesthetic considerations were balanced with functional requirements to create a site that respects the incline's historic character while delivering contemporary usability.

Conclusion:

The Duquesne Incline website successfully bridges historical preservation with contemporary digital usability, creating an engaging online experience that serves diverse visitor needs. From its clear visual hierarchy to its intuitive navigation system, every design decision was made with both first-time and returning visitors in mind. The evolution of the design process resulted in a responsive, accessible platform that showcases the landmark's significance while providing essential trip-planning functionality. This thoughtful approach ensures the site will continue to serve as an effective ambassador for Pittsburgh's beloved landmark for years to come.