Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Preservation and Access Programs application guidelines at http://www.neh.gov/grants/guidelines/HCRR.html for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Preservation and Access Programs staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: Encyclopedia Virginia

Institution: Virginia Foundation for the Humanities

Project Director: Matthew S. Gibson

Grant Program: Preservation and Access Humanities Collections and Reference Resources

I. NARRATIVE

Encyclopedia Virginia (*EV*), a project of the Virginia Foundation for the Humanities (VFH), requests funding from the National Endowment for the Humanities to create over four hundred entries on pre-colonial and colonial Virginia history and to use this content as a proving ground to demonstrate to similar projects the benefits of robust markup and open technology standards. The significance of what *EV* will create with NEH's support is two-fold. First, the *Encyclopedia* will be the only online resource to offer an authoritative, concise, updateable, and accessible collection of content written by scholars and experts that extensively covers the early history of Virginia—a history that is crucial to understanding the birth of the United States. Second, based on the technologies and standards used to describe and build this content and our commitment to share these methods with others through organizations such as the American Association for State and Local History (AASLH) and its Internet and Digital Encyclopedia Alliance (IDEA) affinity group, *EV* will collaborate with other online city, state, and regional encyclopedia projects as we all consider the difficult task of building comprehensive resources that are flexible for today's and tomorrow's needs and that we hope to make interoperable.[1]

I.1. Significance of *Encyclopedia Virginia*

I.1.1. What We Are Building

The creation and production of *EV* is a substantial collaborative undertaking of the VFH, Virginia's state humanities council. For over thirty years, VFH has been a successful liaison between the academy and the public. With initiatives such as "With Good Reason" radio, the nationally emulated Virginia Festival of the Book, the Virginia African American Heritage Program, the Virginia Indian Heritage Program, and the Virginia Folklife Program, VFH has made more permeable those boundaries between the sometimes inaccessible realm of scholarship and public work, culture, and interest. Building upon these successes and leveraging connections with state-wide cultural agencies and archives, VFH is publishing *EV* as both a dynamic resource of discovery and knowledge and a permanent compendium of Virginia culture and history.

Virginia occupies an exceptional place in American history and contemporary culture. The first permanent English settlement in the Americas, Virginia was also the first mainland colony to import slaves and the first to have a representative assembly. Virginia produced the leader of the Continental Army and the principal writers of the Declaration of Independence and the United States Constitution. Virginia led the colonies in revolt against England, and later provided the leadership and the capital of the Confederacy in another war against the country it had helped to create. Over the next decade, *EV* will explore Virginia's unique role in United States history in subjects ranging from "Government and Politics" and "Transportation and Communication" to "Arts and Culture" and "Land and Resources" until each topic has the entries that are fundamental and necessary to cover that subject area.

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[1] *Encyclopedia Virginia*'s prototype site: http://demo.encyclopediavirginia.org/.

The current focus on pre-colonial and colonial history, however, is paramount for several reasons.[2] First, there is no single widely-accessible resource that amasses and serves both thematically broad and temporally deep information about the pre-colonial and colonial Virginia experience—an experience that is national in importance, as it planted the seeds for the settlement of the twelve other British colonies that would eventually become the United States. Second, the national focus on the commemoration of the 400th anniversary of the English landing at and settling of Jamestown highlighted the need for a timely resource that will both serve as a permanent legacy to the commemoration and also broaden our understanding of the period.

To engage users in the historical complexities and details of this period, *EV* will be much more than an aggregation of written essays. Because of its medium, *EV* will provide greater dimension and context to the written word through the inclusion of images, maps, rare documents, and other historic artifacts—objects that print sources cannot supply in great abundance. Furthermore, the citizens of Virginia and the United States need a resource that includes discussions of Virginia's pre-colonial society and its relevance to United States history and culture—a significance that is typically overlooked in the American popular consciousness.

Since *EV* began, scholars of the colonial and pre-colonial eras have expressed their support for this project as one that can bring together in a single, accessible, and coherent resource what is known and what has been published about these periods. As Crandall Shifflett explains in his attached letter of support [see Appendix M], "[t]he Pre-colonial and Colonial content is where *EV* stands to make a major contribution" since it is this period "where past neglect" of native populations and perspectives "has been readily apparent in previous work."

Scholars such as Helen Rountree lament that the study of early Virginia history is becoming less popular among graduate students and that many history departments have been thinning their colonial history resources. In this context, Rountree has expressed concern that Americans are losing sight of their roots and do not consider that the history of more than four hundred years ago has impact and relevance on who we are and how we live today. Early English encounters with and reactions to "others"—both native and incoming enslaved populations—continue to resonate today as we consider the immigration and racial climate of the United States. Interpretations of the Virginia Experiment as a venture for capital and military position and also as a religious mission to spread Christianity have striking parallels to the United States and its position among other nations today.

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[2] *EV* defines pre-colonial and colonial history in the following terms: pre-colonial history is the history (some recorded, most reconstructed from archeological discovery) of Virginia prior to 1607 when the English made their first successful settlement at Jamestown (most of this history would be defined under the term "Late Woodland Period"); colonial history begins in 1585 (and therefore overlaps content in pre-colonial history) with the first attempt to settle the Roanoke Colony and ends in 1763 at the end of the French and Indian War. Even though the Roanoke Colony failed, it represented the first concerted effort at English colonization in the "New World" and thus the decades of overlap between pre-colonial and colonial history in *EV* are necessary to reflect the encounters between English and Native cultures.

Last year's commemoration of the 400th anniversary of Jamestown drew national and international media attention to America's colonial beginnings, but the audience for the commemoration's events and publications was limited to the few who could attend or buy materials with limited distribution. In addition, the history before 1607 continues to be elided, and pop-cultural misrepresentations of the era and experience—Disney's *Pocahontas* being, perhaps, the most nefarious of them and the idealized Plymouth Thanksgiving creation myth being another—continue to dominate. As colonial scholar James Horn writes in his letter of support [see Appendix M], *EV* fills "a need in informing general audiences about a period in Virginia's history that is fundamentally important (in itself also and to the broader narrative of American history) but that is often poorly understood." *EV* will fill this need by being an authoritative, accessible, consistently structured, and lasting resource that provides broad and deep coverage for these and many other historical periods. With the sections of pre-colonial and colonial content, *EV* will present a historically contextualized and expanded view of how the Native, African, and European inhabitants lived and interacted and of what was occurring both inside and outside the Jamestown settlement. *EV* will provide a permanent and accessible space where users can learn about the Nation's origins, and the different perspectives on these origins, through concise entries, multimedia, and interactive tools.

I.1.2. Scholarly Involvement

EV's content aims to capture, explain, and make accessible debates and discoveries within current scholarship and historiography. To accomplish this *EV* engages recognized subject experts at the stage of both content creation and editing. For each topical subject *EV* hires one or two Section Editors to help shape the intellectual framework of a section and to ensure that the entries for that section provide proper coverage and include pertinent scholarship. Approved by *EV*'s Editorial Advisory Board, each Section Editor must be a recognized authority in his or her Virginia-related field and be well-networked with peers and colleagues in that field in order to suggest appropriate names for contributors of particular entries. Our current Section Editors include:

- *Pre-colonial History*: Helen Rountree (Professor Emerita, Old Dominion University)
- *Civil War History*: Peter Carmichael (Eberly Professor of Civil War Studies, West Virginia University)
- *Twentieth Century History*: Larissa Smith Fergeson (Associate Professor, Longwood University) and John Kneebone (Associate Professor, Virginia Commonwealth University)
- *Literature*: Casey Clabough (Associate Professor, Lynchburg College)
- *Geography*: Susan Woodward (Professor, Radford University)
- *Cities and Counties*: Robert Morrill (Professor Emeritus, Virginia Tech)

The Section Editor is responsible for identifying appropriate contributors for each entry topic on the peer-reviewed list that he or she creates and edits. These contributors are typically active scholars and recognized specialists who can speak fluently and with conviction to the facts, controversies, and issues related to an assigned entry topic. This level of scholarly investment and involvement is evidenced in topical lists and entry contributions in current *EV* sections on

the Civil War, literature, and twentieth century history. Among the many scholars and subject experts writing are Peter Carmichael (who is also *EV*'s Civil War Section Editor), John Coski, Mary DeCredico, Rutledge Dennis, Richard H. W. Dillard, William Freehling, Raymond Gavins, Lesley Gordon, Ron Heinemann, William Marvel, Eric Rise, and Douglas Smith [for a more complete example, see the Civil War topic list in Appendix N]. In the case of pre-colonial history, contributors listed are accomplished scholars such as Frederic Gleach, Camilla Townsend, and E. Randolph Turner, in addition to Helen Rountree herself. While the current list for colonial history does not include possible writers, the priority for that area's Section Editor(s) will be to identify appropriate contributors.

I.1.3. How We Are Building It

Over the last few years, university presses and state humanities councils have produced a number of city, state, and regional encyclopedias and public history projects on the Web.[3] Some of these projects are "online only," while others are digital conversions of print publications. The push for more states and regions to produce online reference works is greater than ever, thanks largely to the hyperlinked, interactive, and dynamic nature of the Internet. Nevada launched its online encyclopedia in 2007, Puerto Rico launched in 2008, Alabama is scheduled for its launch in late 2008, and several recently published print encyclopedias (West Virginia, South Carolina, and Appalachia) are exploring digitization possibilities.

Publishers and editors of some of these projects met at the American Association for State and Local History (AASLH) annual conference in 2006. From their discussions they formed an affinity group called the Internet Digital Encyclopedia Alliance (IDEA) as a vehicle to discuss content and technology standardization across projects and to collaborate on building those standards. By promoting the consistent implementation of the robust digital library markup and metadata standards it has adopted, *EV* can add to this conversation and help cultivate a landscape in which tool and content interoperability and resource longevity are possible—a landscape in which a national union encyclopedia might be grown.[4]

EV, of course, is not the only encyclopedia or public history project to use markup and metadata to describe and structure content; however, the markup vocabularies across projects

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[3] See, for instance: *Handbook of Texas Online* (http://www.tsha.utexas.edu/handbook/online/); *New Georgia Encyclopedia* (http://www.georgiaencyclopedia.org/); *Encyclopedia of Chicago* (http://www.encyclopedia.chicagohistory.org/); *Enciclopedia de Puerto Rico (http://www.enciclopediapr.org/)*; *Guampedia* (http://www.guampedia.org/); *Online Encyclopedia of Washington State History* (http://www.historylink.org/); *Tennessee Encyclopedia of History and Culture* (http://www.tennesseeencyclopedia.net/); *Ohio History Central* (http://www.ohiohistorycentral.org/); *Mass Moments* (http://www.massmoments.org).

[4] In the context of this narrative and project, the term "markup" refers to standardized vocabularies defined by eXtensible Markup Language (XML) rules that describe the inherent structural and semantic aspects of content. In brief, XML is a simple set of rules that allows us to use human-readable and machine-readable terms to identify what something *is*—be it structural or descriptive components of information—rather than how something should *look* when we see that information rendered in our browser or in some other delivery format.

is varied and most are not developed or maintained by public user communities with shared intellectual investments and needs. Because these projects are speaking in what amounts to different dialects, the prospect of creating tools (or, even more, using tools that already exist) and content that might interoperate one day in a federated environment becomes costly and difficult to accomplish. *EV*'s use of international XML standards has intrinsic value in itself; however, with over a decade of digital library skills, perspectives, and experiences that the editorial staff brings to the development of *EV*, this project and its staff are in an excellent position to contribute to broader discussions related to the production environments and methodologies of other current and future online encyclopedias.

Before most state, city, and regional encyclopedias began their online life, digital libraries and humanities computing centers were well underway investigating, developing, and adopting text and metadata markup standards. In digital libraries, markup standards (i.e. widely used, maintained, and shared XML vocabularies) perform several tasks in areas of electronic resource development. They establish interoperability between different types of digital assets and formats. In doing this they facilitate the discovery of resources across vast and diverse electronic collections, as we can see every time we search a library's online catalog. When used correctly, these standards also give electronic information the flexibility and nimbleness that allow a piece of content to be repurposed and transformed into many different formats for different purposes and needs (e.g., in the case of an encyclopedia, an entry or group of entries can be transformed into an eBook, a print-on-demand monograph, a text-to-speech audio file, etc.). As libraries invest in the creation of digital repositories to store electronic assets, these metadata standards—platform-independent containers that describe what a resource is, who created it, and how it was created—enable the functions of content submission, archiving and maintenance, and dissemination.

The long-term sustainability and maintenance of online city, state, and regional encyclopedias are a very real concern. While these projects may be successful in marketing and appealing to large and diverse public audiences now—something for which digital library projects are not usually known—they will nonetheless face serious challenges as they attempt to maintain their resources in the midst of shifting technologies and organizational priorities. Digital encyclopedias and public history projects can work to minimize these challenges by utilizing technological standards developed by libraries: institutions that hold content preservation, maintenance, and dissemination as their core values. Through venues such as IDEA, AASLH, the Federation of State Humanities Councils, the National Council on Public History (NCPH), and the Digital Library Federation (DLF), *EV* sees ideal forums in which to discuss and demonstrate the benefits of applying digital library technologies to the realm of public history.

Geographically-based encyclopedias have a large and diverse user base. Because of the popularity of these resources and because of the time, effort, and cost to build them, the objectives of content longevity and sustainability must be considered before and as they are produced. It is also critical that these projects be built with an eye to integrating content within venues we know of now and ones we have not yet considered. *EV* deliberately bridges the spheres of digital libraries and public history in order to accomplish these objectives. We will

collaborate with other institutions to develop standards that facilitate interoperability and tool sharing. This cooperation will enable *EV* staff to demonstrate how projects can combine engaging, powerful, and intuitive functionality with tried-and-true metadata standards, ensuring the intellectual content's longevity and flexibility for future applications.

I.1.4. Comparison with Current On- and Offline Publications

When built, *EV*'s pre-colonial and colonial Virginia sections will both complement resources that are currently available about the history and culture of early Virginia and depend upon them as a foundation for development. However, while *EV* will draw heavily from some of the publications mentioned below as well as from others that are not, *EV* will go beyond the specific scopes and purposes of these resources and provide broader context and concise interpretation of the significance of this critical period. Of the several important and solid reference works and publications available on Virginia, Virginia history, and especially Virginia's pre-colonial and colonial periods, none is as comprehensive, diverse in perspective, or accessible as *EV* will be.

The Virginia Department of Historic Resources
The Virginia Department of Historic Resources (DHR) publishes *A Guidebook to Virginia's Historical Markers* (Revised, 2007), *Virginia Landmarks of Black History* (1995), and *Virginia Landmarks Register* (4th Edition, 2000), all of which are useful tools for brief introductions to a variety of historical topics in the state. In addition, the DHR publishes *Notes on Virginia*, a periodical which provides information on new listings on the Virginia Landmarks Register and on preservation efforts in the state. The DHR also maintains the website, "The Atlas of Virginia Archaeology," which provides information on archaeological projects in the state.[5]

The Virginia Historical Society
The Virginia Historical Society (VHS) publishes the century-old *Virginia Magazine of History and Biography*, a quarterly journal of articles, edited primary documents, and book reviews on Virginia history. The VHS also produces online exhibits of their archives and collections on Virginia history. The VHS is already one of *EV*'s strongest and most supportive media partners and has dedicated time, resources, and digitized materials to the project.

The Library of Virginia
The Library of Virginia publishes several well-regarded and authoritative resources about the Commonwealth, including books such as *Virginia in Maps: Four Centuries of Settlement, Growth, and Development* (2000), and the fourth edition of the *Hornbook of Virginia History* (1994. The *Hornbook*, first published in 1949, is essentially an historical atlas, with listings and brief information about each city and county, about state officials and national politicians from Virginia, and about schools, historical places, and natural resources. In 1992 the Library reprinted *Virginia: A Guide to the Old Dominion*, which was first published in 1940 as the product of the WPA's Writers' Program; while this publication is most closely akin to a state encyclopedia, it is now nearly seventy years old.

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[5] http://www.state.vipnet.org/dhr/Atlas/atlas.htm

The Library's most comprehensive project is the *Dictionary of Virginia Biography*, a multi-volume work that, when concluded, will include six thousand entries on Virginians who made significant contributions, historically or culturally, to the state or nation. The Library conceives of the *Dictionary* as the replacement for the only other comprehensive work on Virginia biography, the *Encyclopedia of Virginia Biography*, a five-volume work by Lyon Gardiner Tyler published in 1915 (a supplementary volume was published in 1929) that included Virginia's most important political, military, business, and social leaders of the seventeenth, eighteenth, and early nineteenth centuries. The new *Dictionary* extends the older *Encyclopedia* by including figures from the late nineteenth and twentieth centuries and by including women, African Americans, and Native Americans. The Library published the third volume of the *Dictionary*, with entries from "Caperton" to "Daniels," in 2006 and continues work on future volumes.

The relationship between *EV* and the *Dictionary of Virginia Biography* offers a great opportunity for collaboration. The Library of Virginia established the *Dictionary* to provide a comprehensive source on Virginia biography unavailable anywhere else and "to foster greater awareness of the richness and variety of Virginia's past."[6] While *EV* shares this latter goal, it will accomplish it in different ways and through different means. *EV* will foster an awareness of the richness and variety of early Virginia by focusing not only on biography, but also on the places, events, and concepts that are significant for this period.

The two resources are also different because of their publication mediums and intended audiences. The *Dictionary* is intended to be available in print versions only and is primarily a scholarly work aimed at adult-level readers. As an online project, *EV* will be organic and current as regular updates and content are added to expand the project's purview and to reflect changes in scholarly perspectives. *EV* will not only reach users by collapsing time and physical distance through the immediacy of the web, but will also make scholarship accessible to a general public audience. As an online project, *EV* will refer its users to other sources, such as the *Dictionary*, for further research and study. *EV* and the Library have already agreed to share what content we can to prevent as much duplication of effort as possible [see Appendix L for letter from Sandra Treadway, Librarian of Virginia].

Current Histories
Most germane to this proposal are the excellent works currently in print that focus on early periods of Virginia history. While these publications—over a dozen of which were written or edited by Helen Rountree, *EV*'s Section Editor for pre-colonial history—will provide an excellent topical foundation for *EV* entries, access to these texts is limited because they are written for academic audiences and because they are print resources. As our Section Editor, however, Rountree will provide the fundamental scholarly knowledge to ensure that this section is covered with breadth and depth.[7]

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[6] http://www.lva.lib.va.us/whatwedo/pubs/dvb/fullintro.pdf

[7] A brief list of important Pre-Colonial and Colonial Virginia print resources includes Billings, Warren M., *Sir William Berkeley and the Forging of Colonial Virginia* (2005); Egloff, Keith, *First People : The Early Indians of Virginia* (2006); Gleach, Frederic W., *Powhatan's World and Colonial Virginia : A Conflict of Cultures* (1997); Horn, James P., *A Land as God Made It : Jamestown and the Birth of America* (2005); Kupperman, Karen Ordahl, *The Jamestown Project*

Recent histories of the Commonwealth are Peter Wallenstein's *Cradle of America: Four Centuries of Virginia History* and *Old Dominion, New Commonwealth: A History of Virginia, 1607-2007* by Ronald L. Heinemann, John Gilman Kolp, Anthony S. Parent, and William G. Shade. Published within weeks of one another in 2007, they are the first historical overviews of note since Virginius Dabney's *Virginia, The Old Dominion*, which was published in 1971. Peter Wallenstein, a member of the *EV* Editorial Advisory Board, and Ronald Heinemann, a member of the VFH Board of Directors and an active contributor to *EV*, are helping to shape the scope of *EV* content. Because of their active involvement with *EV*, both of them recognize that while their published research provides useful overviews of Virginia history and excellent starting points for *EV* content, there is still nothing online or in print that offers the sweeping scope, ease of access, and timeliness that *EV* will provide.[8]

Virtual Jamestown (http://www.virtualjamestown.org)
Virtual Jamestown is perhaps the richest website currently available that focuses on specific aspects of the colonial period in Virginia history. But *Virtual Jamestown*'s focus on detail is what makes it quite different from *EV*, which paints with a wider stroke of content. Crandall Shifflett, Director of *Virtual Jamestown* and former member of the VFH Board of Directors, writes: "As I have learned in interviews with Indians and teacher workshops across the Commonwealth, Virginia's native peoples have long been ignored, omitted, or misunderstood in the master narrative. Many teachers and students are unaware of Virginia's pre-colonial, colonial, and post-colonial relations with Indians and their place in the Old Dominion's history. *EV* will be a great resource because of its extensibility beyond anything that *VJ* [*Virtual Jamestown*] has done" [see Appendix M for letter of support]. *Virtual Jamestown* and *EV* are complementary resources. Directors of both projects have already agreed to share content and links in whatever areas they can. The strong relationship between these two projects will have a mutually beneficial result.

Wikipedia (http://www.wikipedia.org)
While *Wikipedia* is a ground-breaking experimental resource focused on user content creation, *Wikipedia*'s and *EV*'s reasons for existence are utterly different; the existence of one does not, in any way, necessitate the preclusion of the other. *EV*'s sections on colonial and pre-colonial Virginia history will offer users an authoritative peer-reviewed resource that will maintain consistency and reliability across textual and media content. Whether *Wikipedia* is or is not authoritative, the fact remains that many people (including many educators) *perceive* a lack of credibility in the resource. Because of this, neither teachers nor librarians consistently recommend *Wikipedia* as an accurate information tool. On the other hand, because of the systematic peer-reviewed publication cycle that each *EV* entry and media object undergoes

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(2007); Pobst, Sandy, *Voices from Colonial America: Virginia, 1607-1776* (2005); and numerous works by Helen C. Rountree, including *John Smith's Chesapeake Voyages, 1607-1609* (2007); *Pocahontas, Powhatan, Opechancanough : Three Indian Lives Changed by Jamestown* (2005); and *Powhatan Foreign Relations, 1500-1722* (1993).

[8] *EV* and VFH also await the publication of John d'Entremont's sweeping history of Virginia which has been in development for over a decade.

before publication*, EV* will be a work that teachers and librarians can trust for factual, consistent, and concise information.

I.2. History, Scope, and Duration

I.2.1. History

In 2001, the National Endowment for the Humanities awarded VFH a $50,000 grant to explore the feasibility of producing a comprehensive online resource that would offer an encompassing view of Virginia. From this planning process, VFH learned it was well-suited to bring together the agencies, resources, content, and technology to make an online state encyclopedia a reality.

Since that initial grant, *EV* has received financial support from the Commonwealth of Virginia and is currently seeking corporate and private funds for core operations and an endowment. Since 2004, we have received $1,850,000 from the Virginia General Assembly (with another $500,000 appropriated for fiscal year 2010). We have also received $300,000 from individual donors, with another $75,000 pledged, and in 2007, the Dominion Foundation awarded *EV* $100,000. In 2008 we engaged a fundraising consulting firm to guide us through a fundraising campaign on behalf of *EV*, with the goal of securing significant funding from non-state sources. We anticipate the total budget for *EV* to be more than $5,000,000 [see Appendix G outline of project's total budget].

Alongside generous financial support, other state-wide cultural institutions have committed much needed material support to *EV*. Organizations such as the Library of Virginia, the Virginia Historical Society, the department of Special Collections at the University of Virginia, and Virginia Tech augment the project with generous contributions of digitized material from their archives and collections.

Since VFH received initial funding from the Virginia General Assembly in 2004-2005, selected benchmarks that have been achieved are as follows:
- hired Managing Editor (September, 2005)
- hired Associate Editors (February, 2006; January 2008)
- developed text and metadata markup system (September, 2005 – March 2006)
- established media partnership with Virginia Historical Society (February 2006)
- established Technology Advisory Board (March, 2006)
- developed content methodology and workflow (March, 2006)
- awarded contract for Content Management System (CMS) development (April, 2006)
- established content taxonomies (May, 2006)
- established Editorial Advisory Board (June, 2006)
- provided metadata design and data models to outside vendor for development of public interface, content tracking and management system, and XML publishing system (June, 2006 – present)
- created contributor and Section Editor contracts (June, 2006)

- hired Section Editors for subjects of
    - Twentieth century history (June, 2006)
    - Literature (June, 2006)
    - Geography (February, 2007)
    - Pre-colonial history (June, 2007)
    - Civil War (September, 2007)
- became members of the Internet Digital Encyclopedia Alliance (September, 2006)
- hired Assistant Editor (November, 2006)
- hired Media Editor (February, 2007)
- commissioned entries in literature and twentieth century history (January, 2007 – present)
- began receiving content (March, 2007 – present)
- established media partnerships with Library of Virginia, University of Virginia, and *Richmond Times Dispatch* (April, 2007)
- received delivery of stable CMS from contracted vendor (July, 2007)
- led IDEA roundtable discussion on markup and open technology standards (what they are and why they are needed) at American Association for State and Local History (AASLH) annual meeting (September, 2007)
- led XML workshop for online encyclopedia and public history projects at National Council on Public History annual meeting to teach editors and publishers about common methods used for online information creation and interchange (April, 2008)
- commissioned entries for Civil War (May 2008)
- hired programmer (to be done in August 2008)
- launched a fundraising campaign (to be done in September 2008)

I.2.2. Scope and Duration

The production of the larger *EV* project will be accomplished in a series of publication phases. With the help of NEH, the work on colonial and pre-colonial history will begin in the first of those phases. When this phase is completed in 2010, the colonial and pre-colonial history entries will be published along with approximately 700 other entries that span the subjects of twentieth century history, Virginia literature, the Civil War, and city and county histories. Pre-colonial and colonial history content will necessitate an estimated 400 entries, similar in framework and length to those of other *EV* sections: consistently structured and concise essays ranging in word count from 500 to 1500 words (for most entries) up to 3000 (for overview essays).

What follows is a description and projection of future goals and objectives for the full *EV* project. These goals have been divided into three stages.

Stage One (2004 – 2007)
This stage concentrated on planning and implementing the project's technical and publishing framework and content workflow. While much of this stage is outlined in the bulleted list above, it is important to note that during this time, *EV* staff met and spoke with other

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encyclopedia projects—including the generous staff of the *New Georgia Encyclopedia* and the *Encyclopedia of Chicago*—about technical infrastructure and content workflow. These discussions helped inform decisions regarding contract creation and timeline expectations for development.

Stage Two (2007 – 2012)
Intense resource and content acquisition characterizes this period of *EV*'s development. By the end of this stage, *EV* will have commissioned and created approximately 4,500 entries that will be spread across ten subject areas including, with support from NEH, pre-colonial and colonial Virginia history [see Appendix C for list of all subjects]. *EV* will also acquire and create metadata for well over 10,000 media assets that will be associated with these entries. *EV* will continue adding technological enhancements to the site as new open-source dissemination tools become available and as new opportunities and needs arise. Future technical developments include creating a user space for the education community where a teacher might add lesson plans that draw on particular pieces of *EV* content, link to appropriate content to augment the Commonwealth of Virginia's Standards of Learning requirements, and have the ability to select particular content for print-on-demand course packets.

During this stage, *EV* will establish new and maintain current relationships with libraries and other education organizations and communities to promote the resource as an accessible and authoritative publication about Virginia. *EV* will continue to collaborate with other encyclopedias to foster the long-term viability of these digital resources and to build a foundation on which these resources can interoperate with one another. In demonstrating to these other encyclopedias how we are building our pre-colonial and colonial history sections, *EV* hopes to raise the profile of why such conversations are important. *EV* staff will participate at meetings such as AASLH (and IDEA), NCPH, the Digital Library Federation, and the National Humanities Conference (Federation of State Humanities Councils) to discuss content, markup, and open technology standards and to collaborate on developing tools and methods for content interoperability.

Stage Three (2012–)
In the final stage of *EV* production, new entries and updates to already published entries will be added to maintain *EV*'s relevancy; however, the level of content acquisition of *Stage Two* will slow considerably. *EV* staff will concentrate on building new relationships with external constituents, on exploring repository storage possibilities with archives and libraries, and on continued work to create an integrated landscape for online city, state, and regional encyclopedias with members of IDEA. *EV* and fundraising staff will also continue to work to build relationships with donors to grow an endowment for the project.

I.3. Methodology and Standards of Content Creation, Maintenance, and Storage

I.3.1. Content Acquisition, Development, and Rights
The result of a widely distributed collaborative effort, *EV* is rooted in accurate and coherent scholarship. Like all *EV* entries, each pre-colonial and colonial entry that becomes a part of this

publication goes through a series of review stages. The creation of entries follows what are, in many ways, traditional content creation procedures for print publications.

I.3.1.1. Section Editor Engagement

For each topical section of content, *EV* engages a Section Editor who is charged with creating, reviewing, updating, and emending a list of proposed entries to ensure both broad and deep coverage of that section. Approved by *EV*'s Editorial Advisory Board, Section Editors must be an expert in their fields and be well-networked with peers and colleagues in their fields in order to suggest appropriate names for contributors of particular entries. Typically, each Section Editor has three months to create, review, and emend the list of peer-reviewed topics, to name possible contributors for each entry, and to designate the number of words in which each entry should be covered. When reviewing this list, the Section Editor must follow a set of prescribed guidelines as a framework for content inclusion [see "Inclusion Criteria" in Appendix B].

In the case of pre-colonial history, *EV* has already contracted Helen Rountree to serve as Section Editor and with guidance from James Horn at Colonial Williamsburg and Ronald Hoffman from the Omohundro Institute of Early American History and Culture, we are pursuing actively an expert to fill the position of colonial history Section Editor. Dr. Rountree has already given us a topic list that has been approved by *EV*'s Editorial Advisory Board; and, with the advice of Dr. Horn and the Editorial Advisory Board, we have a colonial history list that will provide an excellent foundation for a Section Editor to begin work once engaged. [See Appendix A for a proposed list of pre-colonial and colonial history entries.]

1.3.1.2. Topic and Contributor List

Once topic lists have been received from a Section Editor and approved by the Editorial Advisory Board, *EV*'s Managing Editor contacts contributors to commission entries and the *EV* Media Editor begins the process of acquiring media to enrich the context of each topic.

1.3.1.3. Contributors and Entry Rights

When contributors agree to write entries for *EV*, they sign a contract that gives all electronic and print rights to the Virginia Foundation for the Humanities. VFH and *EV* do this to allow for the legal possibility of future publication formats and distribution possibilities [see Appendix K for contributor contract samples].

1.3.1.4. Entry Development

To ensure that entries are consistent in style, factual accuracy, and mechanics, the Associate and Assistant Editors shepherd entries through a systematic quality assurance workflow. When *EV* receives entries from contributors, the Associate Editor reviews them, and if they meet our guidelines the Assistant Editor sends them to the respective Section Editor.

The Section Editor reads entries for overall coverage, perspective, and voice (the Section Editor has a choice to make corrections on paper or to track changes electronically in .rtf files). When the Section Editor returns entries to *EV*, the Associate Editor reviews the Section Editor's comments and integrates necessary changes into the entries. When this step is completed, the

Assistant Editor sends the entries to a fact checker [see Appendix K for fact checking and copy editing guidelines and responsibilities]. Upon receipt of fact-checked entries, the Assistant Editor reviews the proposed changes for acceptance or further research. After fact verification, the Assistant Editor sends the entries to one of three freelance copy editors. Once *EV* receives the entries from the copy editor, the Assistant Editor analyzes and integrates the proposed changes. In theory, the entries now are ready to be converted into XML.

I.3.2 Preparation and Processing of Material

When entries have gone through the editorial process successfully, the processing workflow splits into two phases. During the first phase of processing, *EV* staff transforms the entries into XML documents with explicitly defined associations to other entries and resources. The second phase—which begins much earlier when the Editorial Advisory Board first approves the topic list—involves aggregating multimedia objects through in-house creation or acquisition from other sources. When *EV* staff completes the transformation of entries into XML, they pass the XML entry to *EV*'s Media Editor who associates media assets with their appropriate entry to provide greater immediacy and context to that content. At this stage, *EV* uploads and stores all valid and finalized XML files and media assets into its Content Management System.

EV staff customized and designed the *Encyclopedia*'s Content Management System (CMS) to be easy to use for future *EV* staff members who do not necessarily have in-depth XML skills and to be robust enough to enable the exportation of XML content for storage and delivery in digital library repositories. For each entry and media object ingested into the system, the CMS manages that entry based on its unique file identifier. The CMS also manages content relationships (e.g. which media objects are associated with which entries, which chronological events are associated with which entries, etc.) based on how the XML entries reference those objects and events. A more detailed description of this process follows below.

I.3.2.1. Phase One: Entry Conversion to XML

After an entry has completed its editorial cycle, it is then ready for conversion to XML. For each entry, a markup specialist (graduate student assistant or other):

- converts non-Unicode artifacts and special characters to Unicode.
- places ASCII-formatted entry in a Text Encoding Initiative (TEI) template using an XML-aware text editor such as oXygen.
- breaks up entry into a series of divisions with the following controlled attribute types:
  - "entry": designates the main part of the entry content.
  - "bibl": designates a bibliographic list of suggested readings on the topic.
  - "externalresources": designates a reference list of external web sites that provide a different level of coverage for the topic.
  - "features": designates internal links to audio, video, and/or timeline media objects.
  - "seealso": designates a list of internal entries that are not mentioned directly in the current entry's text, but add context to and relate in some way to the current entry.

- identifies and supplies links to all entries cross-referenced within the current entry's text.
- associates all Virginia place names in the entry with a "key" attribute that is bound to an "id" attribute value in a Virginia Feature Data XML file; marks up all non-Virginia place names as a <placeName> with no key [see Appendix D, figure B].
- extracts all relevant names mentioned in the current entry and places Library of Congress name authority records for these names in the <teiHeader>, which contains most of the entry's metadata (information *about* the entry). The markup specialist then keys these records to a list of variant names in a Metadata Authority Description Schema (MADS) file. Because *EV* indexes the MADS file with the XML entries, a user's ability to discover entries and information related to but not explicitly mentioned in an entry is enhanced. For instance, if a user searches for "Wahunsanacock," an alternate name for Powhatan, a series of entries related to Powhatan are returned in the search results even if "Wahunsanacock" is never explicitly mentioned in these entries. This occurs because the alternate name is linked to the name authority recorded in the <teiHeader>.
- identifies all unique time-related events in the entry and enters them into a master timeline and chronology list, what *EV* staff refers to as the chronList. In the <teiHeader>, the markup specialist records reference pointers to respective IDs in this chronList. These chronList pointers will then be resolved upon publication and become a part of that entry's "timeline" [see Appendix D, figure A].

I.3.2.2. Phase Two: Media Acquisition and Metadata Creation

When the Section Editor gives *EV* a completed list of entries, the Media Editor begins the process of finding media assets to enhance the immediacy and context of each entry. Like entry creation, media creation is a mixture of acquiring content and massaging that content for web delivery. In acquiring media for any given entry, the Media Editor (ME):

- identifies what assets would be best and most relevant for the entry. This could entail:
  - requesting digital assets from *EV*'s media partners (archives and agencies such as the Library of Virginia, the Virginia Historical Society, *Documenting the American South*, the Rockefeller Library at Colonial Williamsburg, and the University of Virginia Library's Department of Special Collections, and the *Richmond Times-Dispatch*)
  - forging relationships with and making requests from other repositories, museums, and libraries
  - formatting acceptable media donations from entry contributors
  - creating media in-house from photographic expeditions or by scanning from acceptable print resources
  - securing publication and distribution rights for all media objects
- records metadata for the following fields ("*" indicates required field):
  - title of work*
  - creator of work*
  - related subject(s)* (selected from *EV*-specific controlled vocabulary)
  - brief description of work*

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- o original publisher of work
- o date of original creation
- o date of digital creation
- o medium of original (etching, oil painting, etc.)
- o MIME type of offline master asset
- o name of current copyright/rights holder of work (if one exists)*
- o statement of use from rights holder (if one exists)*
- o collection-level information if available
- o contact information of rights holder (address and URL, if available)
- creates derivatives from the master file for web delivery respective of the following:
  - o Images: the ME derives two deliverable versions from the master TIFF: a thumbnail JPEG and a set of tiled images for delivery at high resolution using the Zoomify (http://www.zoomify.com/) Flash application.
  - o Audio: the ME creates a MP3 derivative from the master file — either an uncompressed WAV or AIFF — and streams it through Flash.
  - o Video: the ME creates a FLV derivative from a Quicktime H.264 master file — and, as with audio, streams it through Flash.
- extracts all available metadata (descriptive, structural, rights, and technical) for master and all derivatives into a single METS file [see Appendix D, METS file sample].
- associates appropriate media assets to the entry's XML with pointers to the METS file(s) that pertain to those assets [see Appendix D, figure C].
- before ingestion into the Content Management System, *EV* creates a METS file for each entry object that includes pointers to the TEI entry file and to all the individual METS files that describe each media object associated with that entry

I.3.2.3. Markup Rationale

Entry Markup
EV uses the Text Encoding Initiative (TEI)—a markup standard that allows content builders to represent humanities documents for electronic research, instruction, and interchange—to describe the structure and content of its entries. The advantage of using a structured markup such as the TEI, as opposed to a formatting markup like HTML, is that it provides an organized means for describing a document's content and, in so doing, ensures multiple future uses and purposes. Specifically, the TEI addresses the current and future needs of *EV* in three distinct ways:
1. The TEI is stable. In the twenty years since it was first proposed, the TEI has grown into an international and interdisciplinary markup standard and time and again has proven the benefits of platform-independent and self-contained content description.
2. The TEI is extensible. The TEI's vast community of users and stewards has labored to create new elements and attributes to stretch TEI's applicability into new territories, most notably when the TEI schema was adapted to accommodate the industry-wide transition from Standard Generalized Markup Language (SGML) to XML.

3. The TEI is robust. Because of its rich capacity to describe documents by their intrinsic structure and content, the TEI will allow *EV* easily to repurpose its content into a variety of formats or for a variety of potential future uses.

Media Markup

Because *EV* views media assets as equivalent to entries in the system's hierarchy, we use METS as a wrapper to maintain the item-level information about each media object. *EV* records the following types of metadata for media objects:

- *Descriptive Metadata*: describes a resource for purposes of discovery and identification. It can include elements such as title, description, author, and keywords. In our METS files, we use Unqualified Dublin Core—a simple set of metadata terms to facilitate the finding, sharing, and management of information—to record basic information about the media object.
- *Structural Metadata*: indicates how compound objects are put together. In thinking about a book, structural metadata would record how pages are ordered to form chapters. For media purposes, the structural metadata orders the format and resolution of the various media files for any given object. If we are recording structural information about a still image, for instance, we would include whether the image had a thumbnail size, low resolution size, and/or high resolution size for delivery. The METS <structMap> performs the duty of recording how a particular media file is organized.
- *Administrative Metadata*: provides information to support the management of a resource: when and how that resource was created; file types and other technical data; and information concerning rights and accessibility. The technical component of administrative metadata is important for future examination of the digital object so that archivists and users of the media can know how it was created and under what procedures. *EV* uses a variety of technical metadata applications depending upon the object's media type(s). For still images, we use the Metadata for Images in XML (MIX) Standard; for audio files, we use the Audio Technical Metadata Extension Schema (AMD); and finally, for video files, we use the Video Technical Metadata Extension Schema (VMD).

METS Implementation for Entries

While *EV* creates METS files for each of its media objects, *EV* uses another METS file to wrap up an entry and associated media components in a single repository-ready package for future preservation, maintenance, and distribution. For instance, if the entry is "John Smith," all the descriptive metadata in the entry's METS file will point to the entry's <teiHeader>. The structural mapping of the entry object will then point to the <body> of the TEI entry and to all the individual METS files that describe each media object belonging to the entry on "John Smith." While we do not use the entry's METS file on the production server, it is important that we create and maintain these files to sustain the project as a compatible resource with the Open Archival Information System (OAIS) framework. Because OAIS describes all the functions of a digital repository—digital object preparation, archival submission, maintenance, and retrieval—compatibility with OAIS will enable *EV* to preserve its intellectual resources across future library and archival repositories.

I.3.3. Organization of and access to material

I.3.3.1. Content Management on the Backend

While *EV* creates all intellectual content (entries, media metadata, geographic and temporal information) in XML, the Content Management System (CMS) that stores and handles the XML uses MYSQL 5 as its relational database management system and PHP 5 as the transactional middleware to make content administration more efficient and to deliver rapid responses and results to client queries on the frontend. The debate about the use of relational databases and native XML databases has become more interesting over the last several years; particularly with the continued development of open source native XML databases such as eXist. While *EV* develops all content in XML so that it can be ported to new technologies as they arise and become more robust, our current workflow needs for content versioning and content tracking fit logically and more efficiently into a relational model.

When ingesting content into the CMS, *EV* staff places entries and media objects under one or more "taxonomy" categories to aid in the organization, maintenance, and discovery of content. The CMS allows multiple controlled taxonomy categories as any one entry might be cross-referenced to several subject terms: John Smith, for instance, would fall under "Colonial History," but he was also a cartographer and writer who would also be discovered under the "Geography" and "Literature" rubrics.

I.3.3.2. Content Access on the Frontend

Browsing and Searching
Browsing is an important function for encyclopedias. The "browse" ability in *EV* allows the user to see and choose from an alphabetized list of available entries. A user can also browse entries by clicking through categorical topics of Virginia content [see Appendix D for screenshots of navigational functionality].

For searching, *EV* utilizes MYSQL's full-text indexing function. Users can perform simple searches against a full text index of entries and media. Users can also filter search results for entries and media objects using a series of different facets described below.

- *Era and Date Range*: Results are filtered against temporal information encoded in the entries and media metadata. The system associates chronological data with entries based on the entry's references in the <teiHeader> to chronList IDs.
- *Taxonomy*: Results are filtered based on the subject category to which it belongs. For instance, users might search for "John Smith" in *EV* and if they restricted results by the category of "History and Archaeology," "Smith, John (1580–1631)" would be in the result set; if they restricted the results by the category of "Geography," "John Smith's A Map of Virginia: With a Description of the Countrey, the Commodities, People, Government and Religion" would be in the result set.
- *Place*: Results are filtered by place names mentioned in and associated with a particular entry. Place name data is also indexed in the chronList.
- *Media*: Queries for media search indexes of all descriptive metadata recorded in a media object's METS file. In the result set, a user will see descriptions of each media

object and a thumbnail of the object if it is an image, a video icon if it is a video, and an audio icon if it is audio.

Geographic and Temporal Visualization
The information culled from each entry to build the chronList becomes the backbone of *EV*'s geographic and time-driven visualization module. With this enhanced search function, a user can enter a query, delimit the results by date range, a controlled vocabulary of subject and event types (e.g. birth, death, or battle), and, if a place name corresponds to a particular event, the user can then plot that point or set of points on a map of Virginia utilizing the Google Maps API. The user can then see the entries that refer to this event and go directly to those entries for more information [see Appendix D, figure E; also visit http://demo.encyclopediavirginia.org/travel_planner].

I.3.4. Storage, maintenance, and protection of content

There are aspects of maintaining and protecting data that are already built into metadata required by *EV*'s procedures for content creation. In order to retrieve the results of these procedures and requirements, however, there is also a need to safeguard and store content at the on- and offline level of the system's architecture.

I.3.4.1 Safeguarding Content at the System Level

As a department of the University of Virginia, VFH has access to the university's server infrastructure and the expertise of its department of Information Technology and Communication (ITC). *EV*'s production server is housed in ITC's UNIX/LINUX machine room which is overseen and maintained 24 hours a day, 7 days a week.

EV's current server architecture is divided into a dedicated web server and a dedicated database server. Each of these servers uses a RAID level I so that as content is written to one disk, it is mirrored on another. If one hard drive were to fail, the other redundant drive would take its place so there is no interruption in service and no current content is lost. ITC also updates software on the server and provides daily incremental tape backups in the event that content is inexplicably deleted or lost due to human or hardware failure. ITC implements high standards to protect the University of Virginia's machines and network. The *EV* server is protected by several layers of security. These layers include strict iptables rules and Red Hat's SELinux firewall.

I.3.4.2 Safeguarding Content at the Content Level

Content that is not stored on the server, such as high resolution images, videos, and audio clips, is stored on local external hard drives and periodic copies of this content are made to DVD. Even though it is not always possible to receive high resolution media for a project that relies so much on the model of decentralized production, *EV* strives to follow best practices as follows:

Images
If we create images ourselves, they will always be stored as 24-bit full-color TIFFs with a resolution of 600 dots per inch depending upon the relative size of the original object (e.g.,

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maps would be scanned at a higher pixel ratio). While we do accept items of a lower standard, we advise contributors to follow these same guidelines and if they cannot produce an acceptable level of quality, then we will attempt to find or contact the source ourselves to specify our needs. Uncompressed TIFFs will allow us to generate derivative web and print deliverables in different formats (JPEG, JPEG-2000, PNG, etc.) and resolutions as needs change.

Audio and Video Files
Unlike the world of the digital still image, the world of digital audio and video "preservation" moves quickly and is always less stable. That being said, *EV* attempts to aggregate this kind of multimedia content with as much foresight for future delivery as possible.

Digital audio files have two key criteria: sample rate (samples/sec) and sample size (bits). Additionally, compressed audio, such as the popular mp3 format, has a bit rate (kb/sec). Our preference is to obtain audio files in uncompressed WAV (PC) or AIFF (Mac) format with ideal sample rates of 96,000 kHz and sample size of 24 bit stereo.

Digital videos have a variety of key criteria, including format, pixel size, frames per second (fps), and data rate (kbps). Because of their potential for huge file sizes, digital videos are also often compressed or encoded for easier delivery; the mechanism used to encode a digital video is called a Codec and there is a wide variety in common use. For purposes of longevity, our recommendation is that all moving image files are contributed as uncompressed raw video: AVI (PC) or MOV (Mac) with no encoding or compression, an approximate size of 1280x720 pixels, with 29.97 frames per second, which is the U.S. standard for video delivery.

I.3.4.3. Endowment Creation and Financial Stability
Nothing about *EV* can be accomplished in the short or long term without a steady and secure source of funding. We are in our fifth year of substantial funding from the Commonwealth of Virginia, but we do not anticipate that this funding will continue, especially in light of a worsening state budget crisis. In order to continue the project, we must secure significant funding from non-state sources. We have already succeeded in raising $300,000 from private donors, with another $75,000 pledged, and $100,000 from a corporate foundation. We have engaged a fundraising firm to guide us through a campaign, to begin in September 2008. The goal is to secure sufficient funding for the duration of the project; the long-term goal is to build an endowment for *EV* so that a funding stream will be available for its support in perpetuity.

I.4 Work Plan
(Covering the Period of May 2009–October 2010)

Prior to May 2009 (beginning of grant period)
- *EV* staff will refine and finalize the current technological environment for all *EV* content development, management, and production.
- *EV* staff will secure and contract with Section Editors who will shape the sections of pre-colonial and colonial history. Helen Rountree has already signed a contract to be the pre-colonial Section Editor and her list of topics and contributors has already been

finalized by the Editorial Advisory Board. *EV* is currently seeking an expert to fill the position of colonial history Section Editor; however the current list of topics has been reviewed, modified, and approved by scholars such as James Horn, Karen Kupperman, and John Coombs.

May 2009–September 2009
- *EV* will work with the colonial Section Editor(s) to finalize topic lists which will include entries deemed fundamental to covering the period. Each entry on the list will have by it a recommended word count and one-to-three contributor possibilities with contact information.
- Upon receipt, *EV* will send the colonial history topic list (again, the pre-colonial list has already been approved) to the Editorial Advisory Board for approval and possible suggestions for contributors and missing entries.
- *EV*'s Managing Editor will make the first round of asks to contributors suggested by the colonial history Section Editor(s) (by this time, all asks for pre-colonial history will have been made and deadlines will have been set).
- *EV* staff will attend and participate in National Council on Public History (NCPH) annual conference in Providence, RI (April).
- *EV* staff will attend and participate in American Association for State and Local History (AASLH) annual meeting in Indianapolis, IN (September).

October 2009–December 2009
- Upon final approval of colonial topic list by the Editorial Advisory Board, *EV*'s Media Editor will begin to make requests to cultural organizations and archives such as the Digital Library at Colonial Williamsburg, the Library of Virginia, and the Virginia Historical Society for digital acquisitions.
- *EV* staff will attend and participate in the Federation of State Humanities Councils annual meeting in Omaha, NE (November).

January 2010–June 2010
- The first round of pre-colonial and colonial entries will come in during this period. They will be sent to Section Editors in batches of ten entries at a time.
- Invariably, some entries will have to be reassigned and new contributors found because some contributors will not agree to write, some submissions will not warrant inclusion because of poor quality, and some contributors will not produce an entry in a reasonable amount of time. During this period, the *EV* team will seek and acquire new writers as needed.
- As entries come back from the Section Editors, they will be sent in batches of ten to fact checkers and copyeditors.
- In February and March, *EV* Managing Editor will hire two part-time graduate student assistants who will be responsible for learning *EV*'s XML applications and encoding and validating pre-colonial and colonial entries based on these specifications. They will begin to markup the entries in April 2010.

- The Media Editor will begin to make web deliverables of media assets and corresponding METS files and will continue the process of acquiring and creating new media assets.
- *EV* staff will attend and participate in NCPH annual meeting (TBA).

May 2010–October 2010
- *EV* staff and graduate student assistants convert entries on pre-colonial and colonial topics to XML and associates METS files to the entries.
- *EV* staff uploads entries and media into the CMS.
- Before publishing these sections, *EV* staff test it in a staging environment for quality assurance and bugs.
- *EV* staff publishes sections of colonial and pre-colonial content.
- *EV* staff attends and participate in AASLH annual conference (TBA).

1.5 Staff

[Staff listed is for the duration of the grant period. See Appendix H for résumés of all individuals mentioned below]

Encyclopedia Virginia Staff	*Time Period and Amount*
Andrew Chancey, Executive Editor	7.5% May 2009–October 2010
Matthew Gibson, Managing Editor	25% May 2009–October 2010
Brendan Wolfe, Associate Editor	25% May 2009–October 2010
Matthew Gaventa, Media Editor	25% May 2009–October 2010
Tori Talbot, Assistant Editor	25% May 2009–October 2010
Vacant, XML/MySQL Programmer	10% May 2009–October 2010
2 part-time graduate students for XML encoding	950 hours February 2010–October 2010

Contracted Employees and Consultants	*Time Period on Project*
Helen Rountree, pre-colonial history Section Editor	May 2009–October 2010
TBD, colonial history Section Editor	May 2009–October 2010
TBD, approx. 150 - 200 entry writers	October 2009–June 2010
TBD, four fact checkers	January–October 2010
TBD, three copy editors	January–October 2010

Matthew Gibson leads the development of *EV* and will serve as the principal investigator for this project. As *EV* Managing Editor, he supervises staff and workflow process, develops and oversees technical specifications and functionality, and ensures that benchmarks and deadlines are met. Gibson came to *EV* with almost a decade of humanities computing and digital library experience. As chair of the Digital Library Federation's TEI in Libraries Committee for over two years and as an Association of Research Libraries instructor of XML for six years, he is extremely well-versed in the use and practice of XML technologies in digital library and online

environments. During his time at the University of Virginia Library's Electronic Text Center, he led the transformation of over 1600 full-text XML works into eBook formats and PDFs with native XML applications, directed the second phase of the *Early American Fiction Collection*, managed and built the online version of the *Dictionary of the History of Ideas*, and guided or supported the development and implementation of research projects such as the *Salem Witch Trials Documentary Archive and Transcription Project*, *The Southern History Database*, *Virtual Jamestown*, *Valley of the Shadow*, and *Clotel, an Electronic Scholarly Edition* published in 2007 by the University of Virginia Press's Electronic Imprint.[9] Gibson earned his M.A. and Ph.D. in English from the University of Virginia.

Brendan Wolfe, *EV* Associate Editor, has primary responsibility for developing entry content, which includes communicating with Section Editors, writers, and freelancers when questions arise about content; editing content prior to fact checking and copyediting; and reviewing all assignments before publication. Brendan earned a B.A. degree in English and an M.F.A. degree in Nonfiction Writing, both at the University of Iowa. Prior to joining VFH in 2008, he worked at Buckle Down Publishing, a publishing house specializing in education titles that augment preparation for state-administered standardized tests throughout the United States. He worked there as Editorial Assistant, Project Editor, and then Senior Editor, prior to moving to Charlottesville in 2007. Previously, he taught at the American Language School in Daejeon, South Korea, and worked as a journalist in New Hampshire and Maine. Brendan has published freelance essays and book reviews in journals across the country and is working on a book-length cultural history and biography of Bix Beiderbecke, the early jazz musician.

Matthew Gaventa, *EV* Media Editor, oversees the acquisition, creation, and delivery of audio-visual materials for *EV*, while seeking out and enforcing appropriate media standards and formats. This process includes searching for relevant, compelling, and illustrative media objects in a variety of institutional archives, building relationships with media partners, and implementing appropriate standards for offline storage and online delivery. Matthew came to VFH in 2007 from GreenBlue, a non-profit sustainability institute, where he worked in communications, website development, and media support, building knowledge about web design and media delivery standards. He helped build Dakota Road Productions, a Charlottesville-based community-focused film production company, acquiring hands-on experience in digital media production, editing, and delivery. Matthew's background also includes significant experience in digital rights management through work in freelance graphic, print, and web design. Matthew earned an M.A. in Film Studies from the University of Iowa.

Tori Talbot, *EV* Assistant Editor, ensures stylistic consistency of entry content; maintains the tracking database of encyclopedia entry workflows, author contracts, and correspondence with works-for-hire (including Section Editors, copyeditors, contributors, and fact checkers); and

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[9] URLS: eBooks at UVa: http://etext.lib.virginia.edu/ebooks/; *Early American Fiction Collection*: http://etext.lib.virginia.edu/eaf/; *Dictionary of the History of Ideas*: http://etext.lib.virginia.edu/DicHist/; *Salem Witch Trials Documentary Archive*: http://etext.virginia.edu/salem/witchcraft/; *Southern History Database*: http://www.vcdh.virginia.edu/SHD/; *Virtual Jamestown*: http://www.virtualjamestown.org/; *Valley of the Shadow*: http://valley.vcdh.virginia.edu/; *Clotel: an Electronic Scholarly Edition*: http://rotunda.upress.virginia.edu:8080/clotel/

provides overall administrative support to *EV*. She collaborates with the Associate and Managing Editors in reading and editing entries and performs a large percentage of XML encoding and editing. Tori has worked at VFH since 2002, first as the Operations Director for "Re-Imagining Ireland," when she organized an intensive three-day conference with international and national participants, and then as the Program Associate for Grants and Public Programs. Tori earned her B.A. in English from the University of Virginia.

Andrew Chancey is Executive Editor of *Encyclopedia Virginia* and Director of Planning and Management at VFH. He wrote the encyclopedia planning grant NEH funded in 2001, led the planning process at that time, and led VFH board and staff to undertake a state encyclopedia project. Andrew led the searches for the Managing and Associate Editors and supervises the Managing Editor. He spends approximately 25% of his time on *EV* (including fundraising, public relations, relations with VFH Board and other staff, budget, etc.). Andrew earned a Ph.D. in American History and has worked at VFH since 2000.

Helen Rountree, *EV*'s pre-colonial history Section Editor, is one of the most widely published and widely regarded scholars on pre-colonial Virginia history and culture. While she is an anthropologist by discipline, with her research on Virginia Indians she has become one of the leading historians of a period often ignored by the general public and the academy. With *EV*, Professor Rountree will shape the content of the pre-colonial history section by maintaining the section's tone, suggesting and helping engage appropriate experts to contribute, and ensuring that the section comprehensively covers topics that are only currently discussed in print.

EV has two advisory boards to help guide the editors and staff on particular decisions related to the use and creation of content and technology.

Editorial Advisory Board [III.1 for list of members]

The charge of the Editorial Advisory Board is four-fold:

- Help establish editorial policies that address challenges of serving diverse audiences with different needs and levels of literacy.

- Select and prioritize entries for given subjects and at times offer guidance on whether content is appropriate to include in *EV*.

- Advise on editorial policies related to content accuracy, reliability, and scope.

- Suggest, help select, and at times enlist potential content providers.

Technical Advisory Board [see III.2 for list of members]

EV aims both to reach the broadest audience possible and to be available in perpetuity. With these aims in mind, the Technology Advisory Board has the following charge:

- Offer consultation and help establish policies on best practices and standards for the creation and delivery of digital content in a wide array of media formats: text, image, video, and audio.

- When possible, aid in the selection of vendors for outsourced technical tasks.
- Provide ongoing analysis and feedback in technical areas such as content management system effectiveness, XML encoding issues with schema such as the Text Encoding Initiative (TEI), the Metadata Encoding and Transmission Standard (METS), and web design and interface challenges.
- Advise on issues regarding project sustainability, server security, and stability.

I.6 Dissemination of Project Results

The project for which we are applying for NEH funding will generate two results: one concrete, the other more abstract but potentially as important. The first and more concrete deliverable is a comprehensive set of entries that will cover topics about Virginia's pre-colonial and colonial history with succinct and accessible language and consistent form. This content will serve as a permanent resource to broaden our understanding and knowledge of the roots of the United States. Secondly, this project will increase the awareness and understanding of existing markup standards used for the archiving, management, and dissemination of content. When used consistently and openly, existing markup and technology standards facilitate the use of pre-existing tools (such as those developed by the Open Archives Initiative) and make efforts of content interoperability across disparate projects a possibility.

I.6.1. Content Dissemination

While many users will find and use *EV*'s pre-colonial and colonial content serendipitously through general web searches, *EV* will also utilize various venues across the state and country to demonstrate, discuss, and publicize this content. As an educational resource, *EV*'s primary constituents range from the teacher introducing his or her 4th grade class to Virginia Studies to the undergraduate needing background information and sources for continued study; from the casual learner browsing the web to the lifelong learner with deep interests in history and culture. *EV* will utilize two other online resources to publicize and point users to its content: *Virginia Vignettes* (http://www.virginiavignettes.org/), a weekly print and web publication that provides summaries of *EV* content and that has been added to the Virginia Department of Education's web resources on Virginia history, and the *Encyclopedia Virginia Blog* (http://blog.encyclopediavirginia.org/) which focuses on interesting discoveries and controversies as they arise during the editorial process. *EV* will also actively publicize its content and how that content can be used in a classroom setting by demonstrating the site at meetings of organizations such as the Virginia Council for the Social Studies, the Virginia Association for the Teachers of English, the Virginia Library Association, and Council of Virginia Archaeologists. *EV* will also conduct a press campaign, including press releases to print and electronic media, targeted mailings to interested constituencies, and media appearances by *EV* staff. *EV* plans to hold publicity events in Richmond and Northern Virginia to launch this content that bears so much significance to the foundation of the United States. For these events, *EV* will invite members of Virginia's General Assembly, representatives from various cultural and media agencies across the state, and potential donors who might add to the project's operational budget and endowment.

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I.6.2. Technology Dissemination

The best and only way to make progress towards the technical standardization of encyclopedia content—how the content is created and described—is to meet in person with representatives of city, state, and regional online encyclopedia projects regularly to keep the discussion active, to facilitate the exchange of resources and tools, and, frankly, to have ongoing forums through which to influence the future direction of as many projects as are willing to participate in the discussions. As an active member of the Internet Digital Encyclopedia Alliance (IDEA), *EV* led a discussion and workshop on technical standards at the 2007 American Association of State and Local History (AASLH) annual meeting in Atlanta. Part of the agenda of this discussion was to raise awareness of technical standards: why they are important and how their consideration is fundamental in the realm of creating, using, and reusing tools and in the possibility of making these disparate resources "interoperable."

If city, state, and regional online encyclopedia projects are to reach a point at which we can implement interoperability and tool sharing, each project must begin by explaining and demonstrating the underpinnings of its content—we have to know what we are trying to make interoperable. *EV* has already been in discussions with the creators of the *West Virginia Encyclopedia* and the *South Carolina Encyclopedia* about how they might digitize their print volumes and how we might guide them. And while the UCLA *Encyclopedia of Egyptology* (*UEE*) does not fit into the category of the projects discussed in this application, Elizabeth McAulay, the librarian in charge of *UEE*'s content modeling, has adapted our schema and much of our information architecture for that project's needs.

To facilitate discussions of interoperability, tool sharing, and tool creation, *EV* participates actively with IDEA and leads sessions at meetings of organizations such as the National Council on Public History (Louisville 2008, Providence 2009), AASLH (Rochester 2008, Indianapolis 2009), the Digital Library Federation (2009 and 2010), and the Federation of State Humanities Councils (Omaha 2009). These meetings allow practitioners to meet face-to-face so that they can focus on issues, debate openly, and invest in planning next steps. *EV* is committed to using opportunities and venues such as these to collaborate with other projects on adopting consistent markup practices where practicable, to stress the importance of open technology standards; and to foster a community of specialists that can share content, tools, and experiences that might one day lead to the creation of a permanent and dynamic federated union encyclopedia.