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ABSTRACT

The proposed grant will fund a three-year project to continue development of the Melville Electronic Library (MEL), a born-digital, open source "critical archive" (designated as a *We The People* project), which, when completed, will provide scholars, critics, students, and general readers access to reliable interlinked digital versions of all of Melville's manuscript and print texts. MEL will also provide tools and workspaces enabling users to link Melville texts to other materials related to Melville's life, his art collection and library, sources and adaptations of his works, and secondary criticism. Users of the archive will be able to generate new scholarship including editions of Melville works, critical essays on any Melville-related topic, classroom projects, and formal presentations. During the proposed grant period, MEL technicians will develop three innovative software programs—TextLab, Juxta, and Melville Remix—that will enable editors to structure its database and use it to link images, texts, sources, and adaptations. If funded, MEL will become the primary online resource for Melville studies and a model for other critical archives seeking to promote collaborative research.

Slated for completion in fifteen years, MEL's aim is to build its initial textual core around three focal texts—*Moby-Dick*, *Battle-Pieces*, and *Billy Budd*—which show the range of Melville's work in prose and poetry as well as in manuscript and print. Following protocols of "fluid-text editing," which encode and annotate all textual variants, editors will assemble digital images of all manuscript and print documents, secure reliable transcriptions of each version, generate diplomatic transcriptions of manuscripts and base versions for all works, and generate "revision sequences" and "revision narratives" for all revision sites in each focal work. By the end of its proposed three-year grant period, MEL will have launched two stand-alone fluid-text editions—*Versions of Moby-Dick* and *Versions of Battle-Pieces*—and completed half of *Versions of Billy Budd*.

Crucial to the building of MEL's textual core is TextLab, an open-source image and text editing tool, currently under construction at Hofstra University. When completed, it will enable editors to mark-up digital images of Melville's print and manuscript works and generate TEI (P5)-compliant XML transcriptions of revision sites, sequences, and narratives in a collaborative environment. Previous and current NEH grants have led to the completion of two-thirds of the program. The present proposal seeks funding to complete TextLab's XSLT interface, which will facilitate user collaboration. With TextLab, users can propose alternative readings of Melville's creative processes in ways that more fully realize the editorial goals that "critical editions" in print could only approximate. MEL will also adapt the versatile collation tool, Juxta, to work in conjunction with TextLab. In addition to building its editions, MEL's Art Team will assemble digital images of art works alluded to in *Moby-Dick* and those catalogued in Melville's personal collection of art prints. And with "Melville Remix," a program to be developed in consultation with MIT's HyperStudio during the grant period, users will be able to annotate and link those source images to Melville texts and modern adaptations in a collaborative environment.

With the proposed three-year \$300,000 grant, MEL associates will continue to develop its editorial tools, design our metadata and TEI schema, and build the database. We anticipate that the grant's three, stand-alone editions—*Versions of Moby-Dick, Versions of Battle-Pieces*, and *Versions of Billy Budd*—will appear in time for the Melville Society's 2013 "Melville and Whitman" conference in Washington DC, to be held in recognition of the Civil War sesquicentennial. Melville's work remains a vital touchstone in the humanities for readers in the United States and worldwide; and MEL's online editions and innovative tools will provide models for the further editing of versions, revision, and the creative process not only of Melville's works but of other writers' works as well.

PROJECT PARTICIPANTS

MEL STAFF

John Bryant, Project Director, General Editor, and Professor of English, Hofstra University; Wyn Kelley, Associate Editor and Senior Lecturer in Literature, MIT. Robert Juckiewicz, Technical Supervisor and Vice President of Information Technology, Hofstra; Linda Hantschel, Assistant Technical Supervisor and Assistant VP of IT, Hofstra; Brian Ferris, Technical Director and Wed Development Project Leader, Hofstra; and Kevin Pechin, Senior Web Developer, Hofstra.

MEL EDITORIAL TEAMS. TextLab: Les Harrison (Virginia Commonwealth), Robert Sandberg (Charter College of Education, Cal State), Wesley Raabe (Kent State), and Marta Werner (D'Youville). Battle-Pieces: Robert Madison (Arkansas) and Robert Sandberg. Moby-Dick: Mary K. Bercaw Edwards (UConn) and Les Harrison. Billy Budd: Gerard McGowan (West Point), Robert Sandberg, John Wenke (Salisbury State), and Les Harrison. Melville's Gallery: Dennis Berthold (Texas A&M), Christopher Sten (George Washington), Robert K. Wallace (Northern Kentucky), and Marta Werner.

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THE MELVILLE ELECTRONIC LIBRARY

SUBSTANCE AND CONTEXT

The Melville Electronic Library (MEL) is a born-digital "critical archive" featuring interlinked primary and secondary resources for the study of American novelist and poet Herman Melville (1819-1891). An NEH-funded *We the People* project, MEL is projected to serve as the principal online center for Melville editing, research, and pedagogy. The "textual core" of MEL's database will include all versions of Melville's published and unpublished works, in manuscript and print, to be edited following the protocols of Fluid Text editing and in compliance with the MLA and ADE guidelines for scholarly editions. Aside from its textual core, the various "rooms" in this digital library's interface will contain materials related to Melville's life and travels, his book and print collections, sources for his writings, and links to primary and secondary bibliography. In addition to Melville's works, MEL will include a room devoted to adaptations of Melville and the continuing presence of Melville in world culture. It will also provide finding aids for these materials and links to critical works and scholarly tools. At present, MEL is in the first year of development under a two-year \$175,000 NEH grant. The current proposal seeks a renewal of the grant for three years at \$300,000.

In what follows, I discuss the project's central editorial aims in crafting its textual core, with a particular emphasis on the importance of editing revision in a digital framework. I also explain the project's goals as a "critical archive" and the importance of creating digital workspaces for individual and collaborative research as a way 1) to familiarize scholars, critics, students, and general readers with the disciplines of textual scholarship, and 2) to facilitate research and pedagogy regarding Melville, his culture, and his impact. Crucial to the building of MEL's database is the development of TextLab, an innovative software tool that will enable our editing of the various versions of Melville's works. In addition, we plan to develop Melville Remix, a workspace for linking Melville texts to sources and adaptations. For the proposed grant period, we will deliver stand-alone, readable editions of the versions of *Moby-Dick*, *Battle-Pieces*, and *Billy Budd*. Finally, in detailing our current progress in our present two-year NEH grant, I will offer an itemized work plan for the future development of MEL in 2011-2014.

Born-Digital Editing: Demystifying Textual Scholarship

Textual scholarship, editorial theory, textual criticism: for most of the twentieth century these words marked the boundaries of a somewhat alienated field of literary study—call it scholarly editing—that even in its postwar heyday had a tendency to put not a few practitioners of the critical arts into a profound sleep. While most colleagues went about interpreting texts, textual scholars worked simply to establish reliable texts for critics to interpret. Somehow textual scholarship seemed removed from the sphere of literary interpretation. Throughout most of the twentieth century, the profession encouraged a respectful distancing of textual scholarship from the critical arts, but this seemingly benign separation has diminished the profession's understanding of the profoundly critical nature of what was formerly called textual criticism. Despite important advances in social text, genetic, and fluid text editorial theory since the 1980s, some are still inclined to ask: "Textual criticism? What criticism?"

In fact, scholarly editing, like any mode of textual analysis, is inherently critical if only because successive generations of editors have "un-edited" and "re-edited" literary works in response to shifting critical notions of what constitutes a text. More specifically, editing is a critical act because, in any given project, editorial decisions privileging one variant over another have important interpretive consequences. But certain hallmarks of modern editing have contributed to the profession's amnesia about the critical nature of editing. Critical editions typically segregate an edition's featured product—its "reading text"—from the layers of discourse involved in establishing that text. Not surprisingly, this reading text is showcased in an edition, while its "textual apparatus" is relegated to the back of the book. Worse, because of the size limitations on books, editors typically compress their textual apparatus into something alien and unreadable. In doing so, they convert their discourse into a set of impenetrable codes, which has the stultifying effect of dissuading most readers from engaging with the critical discourses it codifies. Rather than decode this evidence of creative process and textual evolution that is encoded within the apparatus, most critics and nearly all students and general readers simply ignore it.

In a final blow, publishers seeking to reprint a reliable text invariably cut the edition's textual apparatus from their reprints, choosing to publish the reading text alone, thus further segregating the text from the very critical discourse that makes it reliable. Not surprisingly, the

profession persists in its perception that "textual criticism" is not "criticism," and that scholarly editing is not a form of interpretation or critical discourse but merely a mode of text management. To be sure, editorial theorists acknowledge the inherently critical nature of scholarly editing, but if textual scholarship is to establish its presence in the sphere of critical discourse, theorists and editorial practitioners alike need to devise ways to demystify the discipline by familiarizing readers with the interpretive acts that are confined, even concealed, in the alienating precincts of the textual apparatus.

At present, the still-new field of digital scholarship is poised to aid in the demystification of scholarly editing by giving users unprecedented access to editorial processes and decision making. In its well-managed and controlled workspaces, a digital edition like MEL can allow critics, students, and general readers to participate in the editing of texts. With innovative software, such as TextLab, users can collaborate with scholars in building MEL's textual core. And by engaging in editorial practice, they can experience for themselves the interpretative acts essential to the making of editions: transcribing a manuscript, identifying versions, collating variants and assessing their differences, deriving a base version (itself a necessarily interpretive act), marking revision sites, sequencing a revision, crafting single or multiple revision narratives, and linking texts to sources. Not constrained by restrictions of print and publishing's marketplace that have heretofore minimized textual scholarship's claim to critical relevance, digital scholarship can assist in putting criticism back into textual criticism.

It can also bring textual studies into the classroom. Granted, digital images are not the actual books and manuscripts they represent, but the virtual access they provide nevertheless broadens the pedagogical potential of textual scholarship. Such images are a gateway to a world of textuality otherwise denied our students (including those who are visually impaired). When shown that a text from the Bible, Chaucer, Shakespeare, or *Moby-Dick* exists in significantly variant versions, students invariably (in my experience) lean into those texts, with heightened curiosity, mixed emotions, and probing questions, as if their eyes were opening to new ways of seeing, reading, and interpreting. Texts, they perceive, are fluid; but why, how, and with what effect? If carefully developed, digital images and workspaces can bring textual studies directly into the classroom, and inspire readers to seek further contact with originals.

This proposed integration of Digital and Textual Scholarship lies at the heart of the Melville Electronic Library. Still in its first year, MEL requires much planning, development,

and community building as well as image acquisition and transcription before it can launch the first of its projected editions and populate its various rooms. I will discuss this work plan in a later section. For now, however, and because any born-digital edition of Melville will, by necessity, offer new ways of witnessing Melville's texts, let me clarify our editorial principles.

Editing Revision: The Versions of Melville

A given in textual scholarship is that written works evolve, from manuscript to print, from edition to edition, and from generation to generation. As I put it in *The Fluid Text*, a principal cause of textual evolution is revision in one mode or another, either authorial and editorial, or through (meaningful) accidents of transmission, and even by well-intended readers. Writers change course in mid-sentence or revise what they have previously published; publishers require willing or unwilling but compliant writers to expurgate their texts in anticipation of or because of reader response; translators, abridgers, bowdlerizers, digesters, playwrights, filmmakers, even plagiarists, or those who simply (mis)quote change a text so that it will more closely resemble their own desires for that text. Each revision contributes to or may constitute a new version of the original work, thus generating what I call a "fluid text." As it happens, given the nature of texts to evolve, all written works are in some way or another fluid texts, from the Bible and Shakespeare to the Declaration of Independence and Whitman. Textual fluidity is only human: it is inherent in the writing process just as evolving identities are inherent in human behavior and, indeed, the humanities.

We may be unsettled by the inherent instability of the textual condition that generates fluid texts, but buried in the revision process and in the differences between one version and another is a gold mine of concrete textual evidence affording us deeper insight into aesthetic and social pressures on creativity, marketplace constraints, and a culture's shifting identities.

Take *Moby-Dick*. Melville's masterpiece first appeared in two simultaneously published versions in Britain and America. Melville had his novel set in type privately in New York and then sent a set of proofs, pulled from stereotyped (and hence fixed) plates, to Harper Brothers and his British publisher Richard Bentley. However, in sending these proof sheets to England, he added revisions to the proofs. When Bentley reset the novel from Melville's revised sheets, he inadvertently (and famously) dropped the novel's Epilogue and purposely removed numerous

words, lines, paragraphs, even one chapter because of their sexual, religious, and political content. In a series of British expurgations discussed in my recent essay "Rewriting *Moby-Dick*" (*PMLA* 125.4 [October 2010]: 1043-60), Melville's British publisher heterosexualized Ishmael's "bosom friend" Queequeg and subsequently converted him into a Christian, despite Ishmael's comic insistence upon Queequeg's universal pagan status. Scores of revisions like this reveal similar hotspots of cultural contestation in Melville's text.

Modern editors dismiss but rightly record the British expurgations; however, they have also added revisions to *Moby-Dick* of their own. In editing pagan Queequeg into a Christian, Melville's British editor also insisted upon capitalizing "first" in Melville's original phrase "first Congregational Church." And while Melville's scholarly editors reject the larger British revisions that converted Queequeg, they nevertheless accepted this seemingly inconsequential capitalization of *first*. However, Melville's original lower-case "first" has an unexpected significance. Ishmael uses it to underscore his comic insistence that Queequeg belongs to a metaphoric (and lower-case) universal assemblage of all humanity. In context, the British regularization of "first" to "First" places Queequeg instead in an actual (upper-case) "First Congregational Church" down the road. By adopting the British regularization of *first* to *First*, Melville's modern editors in effect diminish Ishmael's joking about Queequeg's universalist affiliation and to some degree inadvertently perpetuate the British revision of Queequeg. The change is small, but, as Ishmael might put it, "not without meaning." Queequeg's "conversion" in the British version and the loss of Ishmael's joke in today's version are only two instances, historical and modern, of how readers—in this case, a publisher and a team of scholars—revise, indeed re-interpret, and recreate the text they publish.

Texts evolve: writers change their minds in crucial ways; copy-editors and publishers project (rightly or wrongly) the sensibilities of readers onto the texts they edit; readers who become (let's say) filmmakers, like John Huston, famously change endings; and even scholarly editors make their revisions to the text, arguing that their version is a closer representation of the writer's intentions. Presumably, these interpretive editorial acts can be reversed or "corrected," but to do so would only further conceal the impact these changes have had on past generations and indeed whole nations of readers of *Moby-Dick*. Apart from their existence, what gives relevance to these and thousands of other revisions in *Moby-Dick* is that they reveal hidden worlds of creativity, publication, and audience response. Fluid texts are historical and cultural

realities. Their versions need to be editorially preserved so that they may be identified, compared, discussed, and used in our critical discourse about books and their relation to culture.

Textual scholarship has always acknowledged textual fluidity, but in the interests of stabilizing the text of a work, modern editors might choose one version of a literary work over another, basing that decision on their clearly announced editorial principles and reasoned arguments for intentionality. More specifically, editors weigh the evidence regarding variants and revisions so as more carefully to evaluate how closely those variants might resemble a writer's "final" intentions (typically the moment a writer surrenders the text, either in fair copy or revised proofs, for publication). Similarly, in fluid-text editing, all variants are carefully examined, but rather than privilege one version or moment of intentionality over the others—or create a new version that mixes historical versions, as in eclectic critical editing—a fluid-text edition aims at displaying the full range of shifting intentions evident in all stages of the writing and publishing processes. It, therefore, validates each version of a fluid text—authorial, editorial, adaptational—offers protocols for the editing of revision, and, importantly, assists readers in comprehending the sequence of revisions and the editor's narrative of that sequencing.

Our immediate editorial goal in MEL is to design the textual core of our database so that readers can easily navigate the versions of Melville and witness the otherwise "invisible texts of revision" previously unwitnessed in Melville's fluid texts. But to place these materials in context, we will expand the database to include other "rooms" in our library that will supply additional content for broader research into Melville's sources, his relation to art, adaptations of his work, his life and travels, and his critical reception. In addition, we will design workspaces such as TextLab and the annotation tool Melville Remix for critics, students, and readers to generate new scholarship. In short, MEL will be a "critical archive." And as such it will be a digital fulfillment of what the traditional "critical edition" might be.

From Critical Edition to Critical Archive

The principal genre of modern scholarly editing is the "critical edition." Typically, such editions include a "clear reading text" supported by an introduction, annotations, a compositional and reception history linked to biography, and a history of the text. In addition, the volume includes in its "textual apparatus" several lists of variants, a record of emendation, and additional

bibliographic or cultural materials. In effect, the back pages of any critical edition is a "storehouse" of information, related documents, and the editor's careful validations of editorial decision making.

The storehouse of a critical edition might be minimally stocked or expanded to a size that dwarfs the reading text itself. Since its inception, the Northwestern-Newberry critical edition of *The Writings of Herman Melville* has published each of its at-present fourteen volumes with increasingly enlarged textual appendices. In 1967, the 277-page *Typee* appeared with a 97-page appendix. In 1988, the 581 pages of *Moby-Dick* were nearly matched by its 462 pages of back matter. In 2009, Melville's *Published Poems* (minus *Clarel*) came to 329 pages with an appendix of 611 additional pages.

While some will argue that the impressive scholarly heft of these volumes consigns them almost exclusively to university library circulation and keeps the storehouse out of popular view, an equally important observation is that the critical edition's identity as a "storehouse" is not metaphoric; it is a storehouse in reality, an archive of related materials that is not only appended to a reading text but justifies and clarifies its existence. And rightly so. An edition should be a place where readers can plunge into the documents and history of a text to discover unanticipated connections that will enrich the reading experience. Moreover, the aim of any critical edition is to give future editors the tools and materials for "re-editing" the edition when new information emerges or new critical developments require a differently edited text. Thus, MEL embraces the critical edition model and seeks through digital scholarship to expand the genre to meet its full potential: the "critical archive."

In building MEL as a digital critical archive, we hope to give the critical edition genre new life in at least four ways. First, the ever-expansive capacity of MEL's database allows us more fully to realize the generic identity of the critical edition as a storehouse. We can, quite simply, add more documents (and at higher resolution) to our archive than the selected samples typically included in printed critical editions. Secondly, MEL's archive is a storehouse without walls so that not only it can be as large as it needs to be, but also it can grow when new contextualizing or secondary material is discovered or deemed to be relevant. A third crucial feature is that because Melville's fluid texts will not be bound separately by title but will exist in one database, the textual apparatus of one Melville work will be linked to all other apparatuses for easy searching and comparison. Fourth, once MEL is launched, we will seek affiliation with

NINES, the acclaimed clearinghouse index and workspace for nineteenth-century British and American literary study. More than just a storehouse, MEL's critical archive will also include workspaces for scholarly research and writing, such as TextLab for editing revisions, NINES's Juxta for collating versions, and Collex for creating presentations, as well as the projected Melville Remix, an annotation tool for linking sources to texts (discussed below).

In current debates, humanists are rightly concerned that Digital Scholarship might replace book culture. Mindful of these concerns, we are building MEL with the view that digitization provides images that will familiarize readers with otherwise inaccessible books and manuscripts and thereby entice them to seek originals and engage the history of the book more fully than ever before. Our view is that MEL's expansion of the critical edition into a critical archive will enliven Melville scholarship and open the precincts of Melville research to increasing numbers of scholars, critics, instructors, students, and citizens of the world. The only problems are, as Ishmael puts it, "Time, Strength, Cash, and Patience." In what follows, I hope to show that MEL's editorial and technical teams have already demonstrated the strength and patience to mount a full-scale digital project like MEL. What is lacking is the cash that will buy us time.

HISTORY AND DURATION OF PROJECT

The idea of the Melville Electronic Library grew out of conversations in the late 1990s among John Bryant, Haskell Springer, and John Unsworth, then-director of Virginia's Institute for Advancement of Technology in the Humanities (IATH), IATH's Daniel Pitti, and the University of Virginia's Jerome McGann. At this time, Bryant (with U Virginia Press-Rotunda editor David Sewell) began work on his electronic edition of *Typee*, completed in 2006. Starting in 2001, Bryant and Springer collaborated on their fluid-text print edition of *Moby-Dick* (Longman 2007), a textual source for MEL's *Versions of Moby-Dick*, discussed below. In spring 2007, Bryant and MEL associate director Wyn Kelley, met with Houghton Library's manuscript curator Leslie Morris and researcher Dennis Marnon to arrange for the digitization of the Melville manuscripts and print items that would serve as model images and texts to be used in a prototype for TextLab, which at the time was in storyboards. Houghton also agreed to provide images for all of *Billy Budd*, at no charge to MEL.

NEH Start-Up Grant (2008-2009)

On the strength of these commitments and after consultation with McGann, Bethany Nowviskie (UVa Library), NINES associate director Laura Mandell (Miami University), TEI expert Julia Flanders (Brown), and Hofstra University's Faculty Computing Services (HFCS) director Judith Tabron, Bryant applied for and received a \$23,000 NEH Digital Start-Up grant (designated as a *We The People* project) to develop a proof-of-concept for TextLab and to hold a meeting of Melville scholars (MELCamp 2008), at Hofstra, to discuss the scope of MEL and to arrange commitments from scholars to participate in its editorial ventures. In the summer of 2008 and with travel funds provided by Hofstra, Bryant attended a ten-day, NEH and NINES-supported digital workshop, headed by Mandell, that included three days of intensive work with Flanders and Syd Bauman on TEI-XML mark-up.

At MEL's first "MELCamp" held on October 24, 2008, with over twenty nationally and internationally known Melville scholars in attendance, Tabron along with instructional technologist Robert Khatami and programmer Marshall Flax presented an outline for TextLab. Much of the day-long program was given over to organized discussion of broader scholarly, critical, and pedagogical applications of MEL's proposed textual core, including links to envisioned sites relating Melville to fine arts, popular culture, Melville's print collection, and the Civil War. Bryant also secured commitments from Melville and digital scholars to join MEL's *Moby-Dick*, *Battle-Pieces*, *Billy Budd*, TextLab, and Melville Gallery teams (see List of Participants above). The assembled MEL associates also approved Bryant's schematic outline of MEL's projected seven rooms in which images and searchable texts representing a full range of Melville-related research materials will be archived.

In 2009, Hofstra shifted the technical administration of MEL from HFCS to Hofstra's Office of the Vice-President for Information Technology (Robert Juckiewicz) and extended the Digital Start-Up grant to February 2010. During this extension, newly-appointed MEL Technical Director Brian Ferris contributed over 20,000 lines of code to actualize Phase 1 of our TextLab development program. Currently, TextLab remains at this initial stage of development, which permits a user to import the image of a manuscript leaf, mark revision sites directly on the image, and in an accompanying TEI-XML text editor encode the revision text of the marked site.

In February, five scholars were asked to test the program, and their reports will be useful in Phase 2 of TextLab development (to be completed in February 2011).

Finally, during the Start-Up Grant period, Bryant wrote an NEH Scholarly Editions proposal to organize and launch the first editorial projects for MEL. The proposal was successful; however, its budget and grant period were cut to \$175,000 for two years from the requested \$300,000 over three years. This reduction has slowed our pace in reaching our initial goals. Even so, our progress in the first year of our Scholarly Editions grant is significant.

NEH Scholarly Editions Grant (2009-2011)

During the first months of the newly-awarded NEH Scholarly Editions grant, Bryant, Juckiewicz, Ferris, and Assistant VP for Information Technology Linda Hantzschel searched for an outside consultant to continue TextLab development into its second phase (see Chart 1). The Charlottesville-based programmer, Nick Laiacona of Performant Software Solutions, who designed Juxta and Collex for NINES, was contracted and has begun work on the project for the four month period ending in February 2011, thereby depleting the current grant's budget for software development. Additional funding to complete Phase 3 of TextLab—the generation of XSLT code for displaying TextLab's XML in HTML—is one goal of the present NEH proposal. In other technical developments during the early months of the grant, Bryant consulted with Hofstra's Executive Director of Design and Production Francis Rizzo, who designed a homepage interface for MEL. At present, Bryant and Hofstra web designer Kevin Pechin are modifying the MEL interface to accept text images and XML transcriptions.

At the same time, Bryant set about acquiring the necessary digital images of the manuscripts and print texts for the grant period's three focal works: *Moby-Dick*, *Battle-Pieces*, and *Billy Budd*. In conversations with Houghton librarian and MEL Associate Dennis Marnon, Bryant arranged for the monumental chore of digitizing the 360-leaf *Billy Budd* manuscript. The complete set of images is scheduled for delivery to Hofstra's MEL server in October 2010. At the same time, and with the help of University of Virginia librarian and MEL Associate Greg Murray (now at Princeton), Bryant arranged for the digitization and transfer of images of the British and American editions of *Moby-Dick* and the first edition of *Battle-Pieces* to Hofstra's

server. These 2500 or so images were delivered in Spring 2010, and samples can be viewed in the MEL interface.

While awaiting delivery of digital images of the *Billy Budd* manuscript from Houghton, Bryant has also focused his efforts on acquiring images of the modern print versions of that novella. Because Melville died before polishing a fully legible fair copy of *Billy Budd*, we do not have an authorized first edition of his text, and the first appearance of *Billy Budd* in print, some thirty years after the author's death, was (like all versions of the novella) a scholarly transcription derived from the highly complicated set of manuscript leaves, some of which are virtually illegible. The earliest transcription was published by Raymond Weaver in 1924. Two other transcriptions, each significantly different from the other, were published throughout the twentieth century: Freeman's in 1948 and the now standard Hayford-Sealts text of 1962.

In Spring 2010, Bryant secured copies of these three modern editions of *Billy Budd* for our MEL collection. He also began negotiations with Hofstra's Dean of Library and Information Services Daniel Rubey to acquire (through additional grant funding) a high-quality flat-bed scanner for digitizing texts at Hofstra University. These discussions subsequently expanded to include Hofstra Museum Director Beth Levinthal, who also seeks to digitize museum holdings. With this collaboration of MEL, Library, and Museum enhancing the likelihood of outside funding for digital equipment, Bryant anticipates the digitizing of the *Billy Budd* print versions to happen locally at Hofstra in the grant's second year (2011).

With the delivery of the *Moby-Dick* and *Battle-Pieces* print texts, Bryant also negotiated that Spring and Summer a contract with Aptara, Inc. to transcribe the texts of those editions into TEI conformant XML. Each text will be transcribed twice by independent keyboarders; both transcriptions will be electronically collated to find typographical errors; and the final corrected version will be proofed against the original images. To facilitate the transfer of images to Aptara, Ferris and Senior Web Developer Kevin Pechin set up an SFTP. The transcription process will begin in Fall, 2010, and we anticipate delivery of the print texts in early 2011.

MEL held its second MELCamp on April 22-23, 2010. Again, over twenty scholars (including several newcomers) assembled at Hofstra University. Whereas our first gathering was designed to discuss TextLab, the textual core, and commitments to MEL, the agenda here, organized by Kelley (in consultation with Bryant), was to discuss the content of MEL's critical archive. With a view to launching MEL during the sesquicentennial celebrations of the Civil

War (2011-2015), we selected three rubrics: War, Sea, and Art. Groups were asked to think openly in the morning about texts and contexts related to these areas of interest. In the afternoon, their task was to consider in a more focused manner how MEL's "rooms" might be organized to encompass the content for the discussed rubrics and what additional digital "workspaces" might be imagined to allow users to manipulate, research, and play with content. One important workspace idea generated from our discussions was Kelley's suggestion of a "Melville Remix" tool that would allow users to aggregate texts and images, annotate them, and link them to sources and adaptations. During the summer of 2010, Kelley interested HyperStudio, a Research Group in MIT's Comparative Media Studies Program, in this innovative idea, and on October 22, 2010 Bryant joined her and HyperStudio staff (Professor Kurt Fendt, coordinator Anna Van Someren, and programmer David Della Costa) at MIT to discuss matters of mutual interest, including adapting TextLab for HyperStudio projects, collaborating on developing Melville Remix and MEL-related digital Timelines, and having MIT host our next MELCamp, scheduled for October 2011.

Also, during Summer 2010, MEL's five-person Gallery team under the guidance of Melville Associates Dennis Berthold and Robert K. Wallace divided up the work of locating images related to all art references in *Moby-Dick* and set up a GoogleDocs site to facilitate the sharing of information and the writing of annotations. Their collaborative research and scholarship will initiate the development of MEL's Gallery "room." At the same time, Bryant and MEL Associate Les Harrison of MEL's *Billy Budd* team began discussions on strategies for using TextLab to edit the revisions on the *Billy Budd* manuscript. They have also focused attention on the broader aspects of the novella's composition. As Hayford and Sealts showed, *Billy Budd* began as a stand-alone poem titled "Billy in the Darbies," which eventually became the conclusion to the novella. Initially, Melville wrote a brief head note to the poem, but in the process of revision, he expanded the note to include more background. In particular, the characters of Vere and then Claggart were added, and as the head note swelled into a novella, Billy was transformed from a mutineer to an innocent in both narrative and concluding poem. Bryant and Harrison are now discussing the intellectual content of a visualization of these stages of composition of the novella to be the basis of an innovative program called "How Billy Grew."

On September 16-17, 2010, Bryant and MEL's technical staff (Juckiewicz, Ferris, and Hantzschel) met at Hofstra with Performant Software's Nick Laiacona and Ed Zavada to discuss

the work plan for the Phase 2 development of TextLab to begin in November, 2010. Its scheduled completion on March 1, 2011 will lead to further testing, coding, and editing, involving the project's three focal works. In addition, Bryant, Laiacona, and Zavada agreed that the adaptation of an online version of Laiacona's collation tool Juxta for MEL and of "How Billy Grew" were reasonable goals for the proposed three-year grant.

As the first year of our two-year Scholarly Editions grant comes to an end on October 31, 2010, we recognize that some project goals originally scheduled for this year have had to be shifted to the second year and future grant periods. (See Chart 1.) Our original work plan scheduled time for devising a TEI-XML schema and METS metadata for MEL and for discussing the adaptation of Juxta to an online environment like MEL. But for various reasons, these activities had to be postponed. The reduction of funding and the grant period mentioned above meant less "time and cash" for internal staff participation in MEL at Hofstra. Time was also taken to search for and contract Performant Software. Working on MEL without course reduction, Bryant has learned, too, that the administration of a grant of this size—the mastering of contracts and contract forms, invoices, and travel reimbursements, as well as attendance in numerous meetings on and off campus—is illuminating but time-consuming. Fortunately, Bryant's initiation into the mysteries of accounts payable will not have to be repeated in the second year of the current grant period, or future years in the proposed grant.

While Bryant has received enthusiastic commitment and gratifying support from all sectors of Hofstra's administration and diligent technical staff, the current grant's budget has also placed limits on what can be performed. As indicated, development of TextLab had to be delayed until Performant Software was contracted. And the delays in developing TextLab required us to shift our discussions of coding and metadata to the second (final) year of the current grant. At the same time, the Text Encoding Initiative (TEI) council is engaged in discussions for adding elements to its section on editing manuscripts that would mean developing new encoding strategies for editing the genetic process. At a seminar hosted by TEI's Manuscript Special Interest Group (MS-SIG) in Paris in May 2009, scholars convened to discuss editorial protocols and approaches. Bryant spoke on "primary and secondary fluid-text editing" (discussed in the TextLab section below). Because TEI has not yet approved the MS-SIG's suggestions for the coding of genetic processes, Bryant has shifted the development of MEL's TEI-XML schema to the second year of the grant period. (See Chart 1.) In the

meantime, in January 2010, he attended a TEI Manuscript coding workshop at the University of Maryland to study the TEI MS-SIG's tentative proposal for new strategies and elements for coding genetic editions and texts in revision (see Appendix D).

Finally, the completion of time-consuming but essential transactions made in our first year have obviated similar transactions in future years. Our current contract with Performant Software to produce TextLab has resulted in a good working relationship, and as noted, our present three-year grant proposal includes funding for future software development of Juxta and "How Billy Grew" with that firm. Similarly, our arrangement with Aptara will lead to further use of that firm for future digital transcription of other Melville texts. In short, the contractual deliberations required during our first year will not have to be repeated in subsequent grant periods. The seemingly "invisible deliverable" here is that the administrative roadways for future work have been paved.

STAFF

General Editor John Bryant (Hofstra) has published several books and articles on Melville most recently Melville Unfolding: Sexuality, Politics, and the Versions of Typee (Michigan) and "Rewriting Moby-Dick: Politics, Textual Identity, and the Revision Narrative" (PMLA)—and is editor of the Longman Critical Edition of *Moby-Dick* and the digital project *Herman Melville's* Typee (UVa-Rotunda; awarded MLA's Committee on Scholarly Editions seal in 2009). He has been editor of the Melville Society since 1990 and created the CELJ award-winning *Leviathan*: A Journal of Melville Studies in 1998. Bryant has also served on MLA's Committee on Scholarly Editions (2004-08), serves on the Executive Council of NINES, and was the NINES Americanist co-editor with Kenneth Price. Associate Editor Wyn Kelley (MIT) is editor of the Blackwell Companion to Melville and author of Herman Melville: An Introduction and MIT's Teachers' Strategy Guide for Reading in a Participatory Culture, a curriculum on Moby-Dick and new media literacies. She was Associate Editor of Leviathan from 1998 to 2010. Bryant will devote his regular research time throughout the academic year to the project and the equivalent of 1.1 salaried months for each year of the project. Kelley will receive a yearly stipend. Together they will supervise the work of the MEL teams in document and image acquisition and all editorial work including transcription, mark-up, and annotation; they will also coordinate annual MELCamps. Bryant will write grant proposals for future funding.

As part of his regular duties, Hofstra's Vice President of Information Technology Robert Juckiewicz oversees MEL's administration, hiring, and technical development. His Assistant Vice President Linda Hantzschel coordinates scheduling and time management. MEL's Technical Director Brian Ferris, who is Hofstra's Web Development Project Leader, is front-end coder for TextLab and oversees the development of MEL's interface, with a time commitment of 12% of his regular load.

The project's editorial work will be divided among five designated teams. These scholars will donate research time throughout the grant period to work with Bryant and Kelley directly and supervise work related to the transcribing and mark-up of the grant's three featured texts, the location and acquisition of art images related to Melville's print collection, and the testing of TextLab. These scholars are listed by team as follows.

TextLab: Les Harrison (Virginia Commonwealth), author of *The Temple and the Forum* (Alabama), is also involved in the planning of a digital Poe archive. Wesley Raabe (Kent State) specializes in textual editing and digital humanities and is working on an electronic edition of Uncle Tom's Cabin. Marta Werner (D'Youville) is editor of the online edition of Dickinson's late fragments, Radical Scatters (Nebraska). Battle-Pieces: Robert Madison (Arkansas) is the Associate General Editor of the Northwestern-Newberry Writings of Herman Melville and Textual Editor / Board Member for *The Writings of James Fenimore Cooper*. Robert Sandberg (Charter College of Education, Cal State) teaches information technology and develops online courses using open source PHP and MySQL based software, including Wordpress, Joomla, WebCT, Blackboard, and Moodle. **Moby-Dick:** Mary K. Bercaw Edwards (UConn), author of Cannibal Old Me, specializes in Melville's time at sea, especially aboard whaling ships, and his use of written and oral sources. Les Harrison (see above). Billy Budd: Les Harrison (see above). Gerard McGowan (West Point) is currently working on Melville's career-long meditation on war and violence. Robert Sandberg (see above). John Wenke (Salisbury State) is the author of *Melville's Muse* (Kent State). **Melville's Gallery** (**MEL Art Team**): Dennis Berthold (Texas A&M) is author of American Risorgimento: Herman Melville and the Cultural Politics of Italy (Ohio State). Christopher Sten (George Washington) is the author of The Weaver-god, He Weaves, edited The Savage Eye: Melville and the Visual Arts, and writes the chapter on Melville in the annual American Literary Scholarship. Robert K. Wallace (Regents

Professor, Northern Kentucky) has authored *Douglass and Melville* as well as numerous works on Melville and the arts. Werner (see above).

SCOPE AND EDITORIAL METHOD

Our original work plan for the grant period beginning in 2009 was based on our receiving \$300,000 for three years. Although we in fact received \$175,000 for two years, we have not minimized our vision of what MEL shall become. Therefore, our work plan for the current proposal carries on our original goals, with some additions. Originally and now, we will continue to acquire images of manuscript and print texts and develop metadata and a TEI-XML schema to process and edit them. Then as now, we propose to complete editorial work on two of MEL's initial fluid-text editions: *Versions of Moby-Dick* and *Versions of Battle-Pieces*. We will also launch a partial edition of *Versions of Billy Budd* (in its manuscript and print-text forms). To deliver these editions, we will complete the development and testing of TextLab and use it to establish MEL's textual core.

In addition, we will continue our research and development to populate the critical archives various "rooms." In particular, our Art Team will continue its work annotating art references in Moby-Dick and securing images of Melville's personal art print collection for our Gallery. Scholars focusing on the Sea and under the leadership of maritime expert Mary K. Bercaw Edwards will work with Mystic Seaport Museum to explore visual representations of a whale ship and whaling practice. We will also explore with MIT's HyperStudio the development of digital timelines of Melville's whaling and naval journeys. Scholars focusing on Battle-Pieces will continue their discussion of representing Melville's perspective on the Civil War. Our progress in this research, and in technical developments of TextLab and our storyboarding and prototyping of Melville Remix and "How Billy Grew" will be reported in annual MELCamps held at Hofstra and MIT throughout the proposed three-year grant period. During these important gatherings, we will also build our scholarly community, one that will grow over the coming generations and provide assurances of MEL's sustainability as a digital resource. As before, we project the completion of MEL's interface, infrastructure, and textual core (including digital editions of all Melville works) to take fifteen years (see Appendix F). With significant support from NEH, we remain confident that we can achieve our immediate goals. Our work plan is outlined below.

Seven Rooms

For the purposes of this grant proposal, we are making our MEL home page available to grant evaluators at the following URL: http://mel.hofstra.edu/. Users of this interface should recall that this rudimentary web site is in its earliest stage of development and is not by any means complete or ready for public viewing. We use the interface in this proposal primarily to visualize the scope of MEL as a critical archive. You will, however, find active links to samplings of the Published Works, Manuscript, and TextLab. Please bear in mind that these links do not contain finished editions or a completed version of TextLab but are instead holding places for raw materials we are use in our editorial work. In the TextLab site, users will be able to watch a demonstration video of the tool in its first phase of development.

When fully realized, MEL will be the primary online site for Melville studies. As currently envisioned the site includes seven "rooms." The project's textual core and MEL's *Versions of Moby-Dick, Battle-Pieces*, and *Billy Budd* can be navigated in the **Manuscripts** and **Published Work** rooms. Here, approved users will also enter TextLab to build and revise these and future fluid-text editions, following protocols discussed in the Methods section below.

Fundamental to Melville research is the study of his library, sources, reading practices, and marginalia, as represented in MEL's **Sources** room. Recently, MEL Associates Steven Olsen-Smith and Peter Norberg have developed an online version of Olsen-Smith's continuous updating of Merton M. Sealts's catalog of the books owned by Melville, titled *Melville's Reading*, and their collaborative work (with Dennis Marnon) on Melville's marginal annotations. Currently, these scholars are planning to adapt their site, *Melville's Marginalia Online* (MMO), to TEI-compliant XML standards, and make it fully interoperable with the images and transcriptions in the proposed MEL scholarly edition. MEL's Sources room will supply a link to MMO (currently in Beta release). MEL will also supply the texts of Melville sources here, and with the projected "Melville Remix" tool they will be able to link Melville texts and source texts for scholarly papers, presentations, and exercises.

A central room in the MEL critical archive is its **Gallery**. Throughout his life, Melville collected over 400 art prints, now located in the Berkshire Athenaeum (BA) and several private collections. MEL Associate Robert K. Wallace has catalogued Melville's prints in various

articles. The BA has digitized its Melville Print Collection and created a finding aid. Our goal for MEL's Gallery is to provide a space where users can view a digitized version of Melville's print collection and make links from these to MEL's textual core and editions. Bryant, Wallace, and MEL Associate Dennis Berthold have already made preliminary contacts with BA staff and look forward in the proposed grant period to negotiating access to the BA materials. The Gallery will also include images of art works alluded to in Melville works as well as photographs of Melville and his family members (located mostly in Houghton Library and the New York Public Library). As noted above, the MEL Art Team has already begun work on identifying and assembling art images related to *Moby-Dick*. In the proposed grant period, we will continue to integrate BA and other images into MEL's Gallery and develop metadata for all manuscript, print text, and art images.

MEL's **Adaptation** room will contain digital representations of a range of materials adapted from Melville works. In its first year of publication, Melville's first book Typee (1846) was digested and illustrated for children in the journal *Robert Merry's Museum*. Modern illustrations of Melville texts—including Mead Schaeffer's *Typee*, Rockwell Kent's *Moby-Dick*, Maurice Sendak's *Pierre*—abound. *Moby-Dick* and other texts, such as "Bartleby" and "Benito Cereno," have been adapted for stage, radio, opera, and film. A crucial concern in digital scholarship is how to code adaptations in order to link them to discrete texts and images, a problem we hope to resolve in developing "Melville Remix." This program is a workspace, similar to NINES Collex, into which a user may bring Melville texts, source texts or images, and adaptation texts together on one screen, create links among the assembled items, and compose an essay, exhibit, or presentation around them to be mounted in the Adaptation room. As previously mentioned, discussions about this idea have already been initiated by MEL Associate Director Wyn Kelley and her colleagues in HyperStudio. Thus far, our goal as articulated by HyperStudio associate Van Someren is to "draw on concepts of social networking" to create "a highly participatory research and learning environment" for Melville Remix. During the proposed grant period, we would develop storyboards and a prototype for this innovative program. In addition, on December 10, 2010, Bryant will share his ideas on source study and remixing with British and Scandanavian scholars at the "Adaptation in Context" seminar, sponsored by the Norwegian University of Science and Technology and hosted by University of Copenhagen's Department of Arts and Cultural Studies.

The principal feature of MEL's **Biography** room will be a Melville Timeline enabling users to link biographical events to texts. Melville Society webmaster and MEL Associate Robert Sandberg is consulting with us on this idea. In the proposed grant period, a MEL Associate to be determined will continue this work in conjunction with other scholars. In addition, but for a future grant proposal, MEL will use GPS technology and map overlays to chart Melville's travels to the Pacific, England, Europe, and the Middle East as described in his journals.

Finally, MEL's **Criticism** room will provide a workspace for primary bibliography and secondary research. It will include a finding aid to major Melville collections (to parallel the catalogue of Melville's prints) and, building on the work of MEL Associate G. Thomas Tanselle, a descriptive bibliography of Melville's works, linked to the proposed scholarly edition. Also to be included will be secondary bibliography, linked where applicable to a collection of Melville reviews and selected modern criticism. We will also include links to digitized versions of Melville reference tools such as Bryant's *Melville Dissertations* and MEL Associate Mary K. Bercaw Edwards's *Melville's Sources*.

MEL Editions: Versions of . . .

We selected *Moby-Dick*, *Battle-Pieces*, and *Billy Budd* to be MEL's first featured works because of the different editorial and technical challenges they pose for the digital editing of revision and of the versions of Melville's prose and poetry, in manuscript, magazine, and book formats. In terms of content they also represent Melville's major statements about democracy and authority before and after the Civil War. Together, these editions will serve as models for future editions of Melville's remaining works, and for any writer's work existing in multiple versions. At the same time, we propose to launch these three works in time for the Melville Society's ninth international conference, on "Melville and Whitman," to be held in Washington DC in June 2013, the second year of our proposed three year grant period. (Images of selected print and manuscript materials can be viewed by clicking on the Published Works and Manuscript links in the MEL website at http://mel.hofstra.edu/.)

Versions of *Moby-Dick*. As already noted *Moby-Dick* exists in two significant historical versions: the 1851 British and American editions. MEL now has digital images of these books. All 2500 or so images meet the professional standards established for MEL: they are 24-bit

color scans taken from the originals at 600 dpi and delivered as TIFF files for archiving, with accompanying JPEGs for transcription and display. Double keyboarded and proofed texts of these images to be delivered in early 2011 will be ready for coding and annotation. At the same time, Bryant will use TextLab to begin entering revision sites, sequences, and narratives explaining the differences between the British and American texts. We anticipate the launching of *Versions of Moby-Dick* at the end of 2011. In the proposed three-year grant period, we plan to add other versions of *Moby-Dick*. In the month before the novel's American publication *Harper's Magazine* published an excerpt, titled "The Town-Ho's Story," which appeared with important differences as Chapter 54 in the novel. In 1892, Melville's literary executor Arthur Stedman supervised a posthumous edition of *Moby-Dick*. More modern scholarly editions, including the Northwestern-Newberry (1988) and its related Norton (1967, 2001) editions and Bryant and Springer's Longman Critical Edition (2006), all contain significant differences. In the projected three-year grant, we will negotiate permission to mount digital versions of these scholarly versions to supplement the already mounted historical editions.

Versions of *Battle-Pieces*. Although Melville had written poems throughout his early years and prepared a never-published volume of poetry in 1860, he did not stake his claim as a poet until after the Civil War, and in doing so, he dropped prose-writing altogether to devote his creative energies almost entirely to poetry. His epic poem *Clarel* is longer than *Paradise Lost*, and his total poetic production rivals that of Whitman. Melville composed most of his 70 or so war poems in Battle-Pieces (1866) soon after Appomattox. Five of the poems appeared with meaningful differences in *Harper's Magazine* in advance of book publication. According to biographer Stanton Garner, Melville was the only American writer of his stature to venture behind enemy lines (a two-week expedition in Virginia as recorded in his poem "The Scout toward Aldie"), but *Battle-Pieces* was savaged by critics who condemned Melville's seemingly irregular style and conciliatory postwar vision. The apparent irregularity was, in fact, the result of a refusal to write the same poem twice, in terms of tone, voice, rhyme, and meter. An inveterate reviser, Melville tinkered with his poems after publication, as is evident in his own revised copy of *Battle-Pieces* (located at Houghton Library). This first book of poetry is a crucial fulcrum in Melville's life as a writer, signaling both his creative turn to poetry and the end of his career as a public professional. As critics are beginning to see, the experimental poems of Battle*Pieces* are a fascinating contrast to popular Civil War poems of the day and, of course, Whitman's equally brilliant contribution in *Drum-Taps*.

For our purposes in MEL, *Battle-Pieces* allows us to develop protocols for marking and transcribing any given Melville poem. We have already digitized the first edition of the book, and by early 2011 we will have keyboarded its text. Our goal for the three-year proposed grant period is to digitize and transcribe Melville's revised personal copy of the 1866 edition, supplied by Houghton Library, and the magazine versions of certain poems as well as the first modern version in the 1924 Constable edition, which established Melville's poetic contribution for modern audiences. Our plan is to use TextLab to locate and mark-up revision sites, and record sequences and narratives, and to launch *Versions of Battle-Pieces* by the end of 2012, six months in advance of the "Melville and Whitman" Civil War conference in June 2013.

Versions of *Billy Budd*. After twenty years of service in the Customs office and having published, in small numbers, two more works of poetry (*Clarel* and *John Marr*), Melville began a poem with a small prose head note that grew to become a novella with a poem appended at the end: *Billy Budd*. This remarkable prose-and-poem work, which spurred the revival of Melville's popularity in the 1920s, exists as a working draft manuscript that has been transcribed three times in the twentieth century by Raymond Weaver (Constable 1924), F. Barron Freeman (Harvard 1948), and Harrison Hayford and Merton M. Sealts, Jr (Chicago 1962). Editorially and digitally, *Billy Budd* presents the greatest challenge of the three featured works as its heavily-revised manuscript represents several stages of composition in poetry and prose and its print versions also vary.

MEL associates will continue the planning and editing of *Billy Budd* begun in 2011 of the current two-year grant period. Using TextLab, Bryant and the *Billy Budd* Team will adapt themselves to Melville's difficult handwriting and acquire the coding skills required for TextLab XML coding. Over the proposed three-year grant period, and using TextLab, this team will generate from the manuscript a diplomatic transcription, derive from that document a base version representing a final reading of each manuscript page, and locate revision sites on the base version. To record variant modern readings of the manuscript, they will also collate the three print versions of *Billy Budd*, select a base version, and encode its revision sites. Editors will also begin to generate revision sequences and narratives and link them and the print and manuscript revision sites to the diplomatic transcription, base version, and manuscript page images.

Throughout the three-year grant period, the *Billy Budd* team will continue its research into devising the previously mentioned digital visualization of "How Billy Grew." The idea here is to give users an overall view of the drafting of this work through its stages of composition as derived by Hayford and Sealts in their 1962 edition. But more than an animated cartoon of growth, this site will allow users at the same time to stop the graphic animation and examine individual manuscript leaves and their more localized unfoldings. Our goal is to create a storyboard for "How Billy Grew" by the end of the grant period.

MEL Technology: TextLab. This program is an online text and image annotation tool for editing revision and versions using protocols developed for "fluid-text" editing. TextLab enables two modes of online editing: primary and secondary. (See Appendix A, Figures 1 and 2.) First, it allows primary editors to inscribe boxes around revision sites directly on book or manuscript images and enter the revision texts in TEI-XML in a specially designed and manageable text editor, thus linking marked image and coded text for storage in a database. (For present status of TextLab, see also demonstration video on our MEL website.) Second, in a coding strategy known as "stand-off mark-up," TextLab allows secondary editors to return to any given, already marked and coded revision site and build a numbered revision sequence out of its texts. At the same, the secondary editor uses TextLab to compose a revision narrative that relates the events plotted in the revision sequence. A revision site and its sequences and narratives are linked and stored in the database; however, other editors can reconfigure the revision sites and / or compose alternative sequences and narratives. All alternative sequences and narratives are also linked to each other to promote open discussion of variant approaches to the editing of revision. When fully operational in its XSLT interface, TextLab will, in Phase 3 of its development, also enable users to generate a diplomatic transcription of the text, a base version on which all revision sites (and their linked sequences and narratives) can be mapped, and a clear reading text. TextLab is designed for editing any text in revision and will serve as an open-source model for any online editorial project, for any author, in manuscript and in print.

At the core of our prototype TextLab implementation, we will have a MySQL database, TEI-XML (P5) transcriptions, metadata, stylesheets, displayable HTML, and other artifacts. This database acts as a bridge between the two primary current development efforts. On the "internal" side of the database, we use (1) Java to construct TEI transcriptions, and (2) a custom

graphical tool to enhance the TEI with rectangle coordinates indicating regions of interest (revision sites) on the manuscript image.

FINAL PRODUCTS AND DISSEMINATION

MEL's interface, database, and TextLab are currently under construction and are located in a dedicated server at Hofstra University. As noted above, Brian Ferris completed the first phase of development allowing for the primary editing of revision sites. During the current grant period, Performant Software will develop the secondary editorial functions enabling the generating of revision sequences and narratives. During the proposed three-year grant period, we will use XSLT to generate an interface that will allow us to generate publishable HTML versions of the diplomatic transcription, hyperlinked base version, and reading text. With TextLab fully tested, we will use it to translate our already populated database input into MEL's three initial editions: *Versions of Moby-Dick, Battle-Pieces, and Billy Budd*.

Editorial Standards. The editorial project will follow best-practice protocols of transcription, collation, annotation, and proofing in guidelines established by the Association of Documentary Editing (ADE), as outlined in Mary-Jo Kline's *A Guide to Documentary Editing*, 3rd ed. (2008), and by the Modern Language Association (MLA), as outlined in *Guidelines for Scholarly Editions*, http://www.mla.org/cse_guidelines. Trained students (at Hofstra and elsewhere) under the supervision of MEL associates will proof keyboarded texts against digital images of print texts. Bryant and other MEL associates will proof manuscript transcriptions against images and original documents. As noted above in the section on TextLab, we will also follow practices for editing revision as outlined in Bryant's *The Fluid Text* and *Melville Unfolding* and implemented in his electronic edition, *Herman Melville's Typee: A Fluid-text Edition*, which in 2009 was the second digital project ever to be awarded MLA's Committee on Scholarly Editions seal.

Because they will be based on open-source technology and standards, MEL's three featured scholarly editions will be made available, without charge, to students, instructors, scholars, and general readers through a variety of browsers. MEL's seven rooms are expandable so that other materials for scholarly, critical, and pedagogical projects may be added, and MEL will be interoperable with other sites such as the *Walt Whitman Archive*, the *Emily Dickinson Archives*, and NINES's ever-expanding research index so that Melville texts and materials can be

integrated with the works of other writers, ancient and modern. In addition, our development of TextLab with open-source technologies will make this innovative image and text mark-up tool readily adaptable to other editorial projects that wish to address a writer's revisions.

Coding, Schema, Metadata, and NINES. If our grant is awarded, MEL's editorial and technical teams will continue its training in TEI-XML coding. Bryant has already attended a beginning and advanced manuscript TEI-sponsored workshops, and Associate Director Wyn Kelley has attended a workshop on annotation (Brown University). In the current grant period, Kelley and MEL Associate Les Harrision will attend advanced workshops on manuscripts. In our present proposal, we have budgeted funds for further training and for consultations with experts on establishing MEL's TEI-XML schema and metadata. Presently, Bryant is exploring traditional and proposed TEI-XML approaches to coding texts in revision: the standard P5 approach and the new model for genetic editing. (See Appendices B, C, D, and E.)

Consultants Daniel Pitti (IATH) and Julia Flanders (Brown) will assist in general project design and the use of Roma, TEI's P5 Guidelines, and the XML editor Oxygen to develop MEL's XML schema. In consultation with Hofstra's library staff, the editors will also develop administrative and descriptive metadata for all images, following the XML-compliant protocols established by the Metadata Encoding and Transmission Standard (METS; (http://www.loc.gov/standards/mets/) and Encoded Archival Description (EAD, version 2002; http://www.loc.gov/ead/). To affiliate with NINES, Bryant will confer with Andrew Stauffer and Dana Wheeles at NINES for applying XML-encoded Resource Description Format metadata (RDF; http://www.nines.org/join/rdf.html), which categorizes genres and types of digital objects thus enhancing MEL's interoperability.

Invisible Deliverables. Presently in its first year, MEL remains embryonic: images have arrived, texts are about to be transcribed; TextLab is nearing completion; *Versions of Moby-Dick* is in the offing. Still, certain intangible achievements remain undocumented. Our two MELCamps have proven highly effective in bringing Melville scholars and digital scholars together to plan, build, and edit. But more importantly, in also attracting younger scholars, we are setting up a community that will perpetuate itself beyond the launching of MEL's projected editions and sustain MEL as a vital, evolving digital resource. In this growing community of scholars, made possible by NEH funding, is our best bid for digital sustainability.

MEL's first NEH grant may have been small, but it was the largest Humanities grant

Hofstra has ever received in its 75 year history. Until fairly recently, digital humanities scholarship has, by necessity, been conducted at large research institutions. Hofstra, like other mid-size universities with a commitment to scholarly excellence, has only recently established a digital infrastructure allowing its staff to move into the intriguing arena of digital humanities scholarship. By bringing MEL to Hofstra, NEH has stimulated new and unanticipated liaisons on campus among faculty and staff in the English department, Faculty Computing, Information Technology, Library, and Museum. It has enabled Wyn Kelley and me to forge links between Hofstra and MIT's HyperStudio. In addition, my own writing related to Melville, MEL, and digital scholarship has become increasingly recognized: my essay "Rewriting Moby-Dick: Politics, Textual Identity, and the Revision Narrative" appeared in October 2010 in PMLA's special issue on "Literary Criticism in the Twenty-first Century," edited by Jonathan Culler. And another essay, titled "Where Is the Text of America? Witnessing Revision and the Online Critical Archive," has appeared in Michigan's volume *The American Literature Scholar in the* Digital Age, edited by Andrew Jewell and Amy Earhardt. In the past two years, I have been asked to share my ideas about fluid texts and the editing of revision in keynote addresses, digital workshops, and seminars in Barcelona, Galway, Paris, and Copenhagen. These local, national, and international developments attest to the viability of MEL and the growing interest in revision, adaptation, and digital fluid-text editing.

After only a year, MEL's editorial teams, consisting of renowned Melville scholars and digital humanists in allied fields as well as newcomers drawn to our project, are eager to get Melville online in innovative yet reliable ways. The project's leadership has a proven track record in Melville studies, editing, and digital scholarship. A renewal of our grant would help us ride the swelling wave of enthusiasm for MEL and Melville, here and abroad.

WORK PLAN

Please see Chart 2 for the detailed scheduling of our proposed three-year grant period, the editorial and technological highlights of which are discussed below.

With the anticipated completion of the database for *Versions of Moby-Dick* in 2011, our plan for Year One of the proposed grant is to enter data for *Versions of Battle-Pieces* and to continue adding to *Moby-Dick*. At the same time we will continue editing the *Billy Budd* manuscript and print versions, adding revision data to the database. We expect completion of

Phase 3 of TextLab at the end of Year One, and testing of the tool. During this time, we will work on the storyboarding of "Melville Remix" and the Art Team's annotation of art images in *Moby-Dick* for the Gallery.

Year Two will see the launching of *Versions of Battle-Pieces* and our Beta Version of TextLab. We will also adapt Juxta for MEL and use Juxta to collate the print versions of *Billy Budd*. By the end of the year we expect to have a prototype of Melville Remix. In Year Three we will release public versions of TextLab and MEL's Juxta and take Melville Remix into its Beta version. We will continue editing *Billy Budd* and the art annotations for *Moby-Dick*. We will also develop storyboards and a proof of concept for How Billy Grew. If full funding is granted, we expect that by the end of the grant period's third year, we will have launched *Versions of Moby-Dick* and *Battle-Pieces*, and we will have completed the collations of the print versions of *Billy Budd* and the editing of half of the *Billy Budd* manuscript.