III. NARRATIVE

A. Significance

Statement of Purpose

In July of 2010, the Early Modern Center (EMC) at the University of California-Santa Barbara plans to launch an important third stage of its electronic English Broadside Ballad Archive (EBBA) <http://ebba.english.ucsb.edu> and begin mounting online the British Library's Bagford, Luttrell, Huth, and Osterley Park collections of primarily 17th century broadside ballads (around 1,100 works). Taken together, these collections will considerably expand and deepen EBBA's already significant database of difficult-to-access ballads printed in the 17th century—the heyday of the English broadside ballad.

The British Library has granted the EMC unprecedented permission to add its early ballad holdings to EBBA. With generous funding from the NEH for 2008-10, we are currently archiving the BL's Roxburghe ballads—the second largest extant collection of 17th century printed ballads (approx. 1,500 ballads). This project will be completed on schedule in the summer of 2010. The RBA, when added to EBBA's already digitized Pepys Ballad Archive (PBA)—the largest collection of 17th century printed ballads (over 1,800 ballads) made by Samuel Pepys—will nearly double EBBA's size. With the inclusion of the BL's Bagford, Luttrell, Huth, and Osterley Park collections to the Roxburghe and Pepys, EBBA will achieve unparalleled access to one-half of the estimated 9,000 extant English broadside ballads printed pre-1700. Adding these four important collections to EBBA will further allow users to cross-search not only within but also between many collections of printed ballads of the period, revealing new contours in the evolution of the broadside ballad. Following well-established EBBA standards developed in working on the Pepys and Roxburghe ballads, we will provide facsimile reproductions in varying sizes of collection album pages as well as of reconstituted ballads (offering a close approximation of how the ballads looked before the collectors assembled them—often trimming and cutting them—into album books); transcriptions of the difficult-to-read early modern print that preserve the original ballad ornament and formatting (providing easy readability without sacrificing aesthetic appreciation); recorded songs of all available tunes; extensive and fully searchable cataloguing of the ballads; TEI/XML encoding of the texts; MARC records; and helpful introductory essays about early modern ballad culture and individual collections. We will also enhance EBBA's technological infrastructure by creating an integrated, web-based, GUI interface for cataloguing and managing our holdings and fuller cross-referencing tunes and illustrations across these many collections. Finally, we will expand EBBA's already sophisticated web gateway of search mechanisms by adding more analytic tools, such as the ability to map the evolution of the ballad via easy-to-use visualization techniques. In the process, EBBA will freely provide scholars, students, and the general public with the opportunity of enjoying and understanding these multifaceted cultural artifacts in ways unavailable through traditional print media or other extant websites.

EBBA's goal of recreating not only the physical features but also the cultural experience of broadside ballads is crucial to a full appreciation of why they were so important in their time. Called "broadsides" because they were printed usually on one side of a single sheet of folio size paper (hence broad-side), these ballads represented a major new cultural phenomenon distinct from the oral ballad of tradition. They were multi-media artifacts. Printed in their heyday in black letter or gothic type, with multiple woodcuts and accompanying tunes, they were simultaneously text, art, and song. As cheap print—costing on average just a penny—broadside ballads were peddled in shops or on the street by the millions and bought by all levels of society. They were the equivalent of today's newspapers or magazines, and like those popular media, were a medium of mass communication whose importance can scarcely be overestimated.

But if millions of ballads were printed for mass dissemination, almost as many were lost to posterity when they were pasted up on walls or recycled as pie linings, pipe kindling, toilet paper, and the like. 17th

century ballad collectors thus engaged in an extraordinarily important feat of preservation. John Bagford, a bookseller, assisted Samuel Pepys and Robert Harley in collecting ballads, in addition to assembling his own 3 volume collection of some 358 mostly black-letter broadside ballads. Like the Roxburghe, the Bagford ballads would readily fit into the many categories by which Pepys grouped his own collection. Such Pepysian categories reflect the ballad's expansive range of topics, extending from the serious, political, and religious, to the trifling, domestic, and profane. The Bagford collection confirms the representativeness of the Pepys and Roxburghe collections (even those Roxburghe ballads printed in the early 18th century). At the same time, Bagford devotes one entire volume to "political ballads." Narcissus Luttrell's 3 volume collection of some 586 mostly white letter or roman font broadsides, printed c. 1660-88, echoes Bagford's special interest in the political, which was not as prominent in the Pepys and Roxburghe collections (despite the influential status of their collectors). The Osterley Park collection of 70 broadside ballads c. 1685-94, however, shows that politics does not always rule in the later 17th century, nor does white letter. This collection, though relatively small, is especially important for its favoring gender issues and also because the majority of the ballads boast woodcuts of musical scores— something we've seen in other collections but never in such numbers. Finally, another relatively small collection, the Huth's 75 black-letter broadsides, assembled by William Fitch, is invaluable in offering us a look at the pre-heyday broadside ballad of the 16th century (only some 250 16th century ballads survive *in toto*). In the Huth we see the various ballad topics printed specifically for Elizabethans as well as the early features of the broadside ballad (black letter with fewer ornaments and no named tune) before it evolved into the high broadside ballad form (the ballad "heyday"). Adding the Bagford, Luttrell, Huth, and Osterley Park collections to EBBA, in sum, will preserve an even wider and more illuminating window than EBBA currently offers onto an otherwise limited view of 16th through 18th century culture.

Yet full access to these collections, as to the Roxburghe and Pepys, has been frustratingly limited. Due to the fragility of the ballads (the result of being printed on cheap paper and much handled in their time), the British Library tightly restricts access to the originals. This is why it approached EBBA and granted us permission to publish its ballad holdings online. The BL's initial permission was followed by a daunting 27 page license that led to extensive negotiations with the BL, but we now have a mutually acceptable template license for future archiving of the BL's ballads that is the first-of-its kind, landmark license to be signed between a North American institution and the British Library. The BL has pledged to cooperate closely with EBBA and Kristian Jensen, Head of British and Early Printed Collections at the BL, has agreed to serve on EBBA's Advisory Board (see Jensen's commitment letter in **Appendix 16**). Other currently available options for accessing the ballads are considerably less desirable. Microfilm is expensive and unwieldy, and even when a ballad is located on a reel, problems often arise. Since most early ballads are in thick black letter or gothic font, and since browning of the cheap paper and blotched or faded print is common, the texts are very difficult, at times, impossible, to read. This is especially the case for modern readers unfamiliar with the peculiarities of early modern type. For instance, in black letter and even in most early modern white letter (or "roman" font) an "s" is often printed as "f," which can easily be confused with an "f" or a "t"; "sitting" or "selling" might thus be mistaken for "fitting" or "telling," leading to mis-readings of the ballad's meaning. Though some modern print editions exist, they too loosely follow the original texts and forgo the original layout of ornament and text. Print publication, moreover, lacks the advantages of extensive search mechanisms which a digital archive can provide.

Though some of the ballads in these collections have been mounted on the Web, many remain cloistered in the BL archives. Early English Books Online (EEBO), for instance, lacks the 2nd and 3rd volumes of the Bagford ballads as well as the 3rd volume of the Luttrell. Furthermore, EBBO does not list collections by name in its bibliographic information. To find a collection, users must input the library shelfmark number, which only an expert would know. Even with this key, ballads display randomly; they cannot be browsed in sequence through the albums. Nor can they be searched together with other ballad albums. Searching for just one ballad is also most difficult amidst the 130,000 works EEBO contains, especially given the often byzantine titles of ballads, such as "The Lamentable Ballad of the Tragical End of a

Gallant Lord and a Vertuous Lady . . .”). In addition, woodcut illustrations cannot be searched in EEBO, search results arrive without any contextualization, and, as with print publications, sung recordings are entirely absent. We nevertheless maintain an open dialogue with EEBO—hoping in the future to create links from EEBO to our open-access archive—and Jo-Anne Hogan, Publisher at Proquest (owner of EEBO) and Shawn Martin, formerly of EEBO-TCP (a project that transcribes a portion of EEBO's texts), are both members of EBBA's Advisory Board. The value of an independent ballad site is clearly high.

EBBA answers a pressing need for scholars of popular culture, literature, art, and music. Like its first-born, the PBA and its RBA brother, the archives of the Bagford, Luttrell, Huth, and Osterley Park ballads will provide high-quality digital facsimiles of ballads in varying sizes and formats. As with the RBA we will be in the extraordinary position to re-shoot all the album pages as high-resolution digital color photographs instead of working solely from microfilm, as we necessarily did with the Pepys ballads. We will thus provide viewers with excellent surrogates for the originals. The color images will allow viewers clearly to see where the yellowed ballad page ends and the differently faded album page begins, and thus to make out exactly how the broadsides have been trimmed and sometimes cut apart. In addition to these color pictures of the album pages, which we will mount both on the BL's "Treasures in Full" website and on EBBA, we will provide two manipulated viewings of the ballads created from digitized microfilm so as to avoid any confusion with the color originals: "ballad facsimiles"—images of the broadside ballads that reconstruct how they were originally printed (with the album border removed and the ballad pieces reassembled, if cut apart, to form a whole broadside)—as well as "facsimile transcriptions." In the latter viewing, transcriptions will be made according to strict EBBA rules that render the early modern font into easily readable modern type, but without sacrificing all the features (and thus the character) of the original language (see also "*Mounting the Ballad Images*" below). Furthermore, even as they will make the text more accessible for the modern reader, facsimile transcriptions will preserve the ballads' illustrations so that viewers will not lose sight of the fact that ballads are multiply viewable as both texts and art. Advancing access to the ballads' multi-disciplinarity, EBBA will additionally provide recordings of sung versions of the ballads from these collections wherever a tune is found to be extant (estimated at some 600 songs). These tunes will be researched and recorded under the direction of our experienced music specialist. Through advanced graduate coursework, essays will be offered on each unique collection. Finally, the ballads will be extensively catalogued and digitally represented according to rigorous TEI/XML and MARC standards to ensure maximum searchability as well as the longevity of the archive.

Because the new collections to be added to EBBA include transitional works representing both the genesis and evolution away from the high ballad form, EBBA's data structure will be expanded to capture specific modes of this development. We are deliberately proposing to archive slightly fewer ballads than in previous EBBA stages because multiple collections take more time to parse than a single collection but also because the expansion of data fields required to more fully capture the evolution of the ballad form requires both more cataloguing of the newly added collections and re-cataloguing of these specific aspects of existing collections. Additionally, as part of our current grant, EBBA's web-based front end was migrated from a Microsoft Windows platform to an open-source, Linux/Apache/MySQL/PHP (LAMP) environment. We now need to migrate our production and management functions to a LAMP environment as well, creating an integrated, web-based, GUI interface for cataloguing and managing EBBA's holdings (instead of relying on cumbersome spreadsheets and multiple application interfaces). Finally, whereas our current web gateway provides a host of advanced, data-driven tools designed to allow users to locate and view individual items, we will develop a variety of analytic tools such as, for example, the ability to map the evolution of the formal features of ballads over time. These new tools will allow scholars to construct their own analytic queries against the entire EBBA dataset and to display the results in a variety of forms, including advanced visualization techniques (see "*Digital Technology*"). Already usage of EBBA is high and growing—from 39,675 unique visitors in '07 to 48,364 in '08, an average increase of 724 visitors/month (see **Appendix 1**). We expect such usage and its user-value to increase dramatically with the addition of more collections to EBBA.

The Significance of an Expanded EBBA for the Study of Popular Culture

The single most printed medium in the literary marketplace of London, ballads were a form of mass communication, estimated by Tessa Watt to have been printed as early as the late 16th century in the millions (Cheap Print, 11), and then sent onto the city's streets or out into the provinces in the packs of peddlers along with other cheap fare. Indeed, one could not travel from point A to point B in London without hearing ballads sung on street corners or seeing them pasted up on posts and walls. Ballads thus touched all levels of society. Shakespeare, for one, cites ballads in every play he wrote. Still, ballads were decidedly aimed at and embraced by the "low." They were printed on the cheapest paper using recycled, worn woodcuts as well as recycled tunes so as to be affordable to all but the very poorest of society. Indeed, ballads cost on average a mere penny. To increase their audience to include the semi-literate, well into the 17th century (when other texts were being issued in white letter or roman type), ballads were still being printed in black letter or gothic type, which was the print by which children learned to read. To increase their allure, ballads towards the end of the 16th and beginning of the 17th century became increasingly ornamental, with decorative lines and many pictures. People of the lower to middling sort would buy ballads to paste them up on their walls as ornaments. Finally, ballads of this period were sung to simple, well-known tunes (so well-known that just the tune title need be printed on the ballad), which also made them more accessible to the less educated. An example of the "high" broadside ballad form is "Anne Wallens Lamentation" (Pepys, dated 1616) <http://ebba.english.ucsb.edu/ballad/20053/image> and "The Good-fellowes Advice" (Roxburghe, c. 1635) (**Appendix 2 and 3**).

To add icing to the visual and aural cake of the ballad, the subject of ballads expanded at the beginning of the 17th century to include all kinds of topics of interest to all kinds of people—talk about gender and marriage problems (reflecting new concerns over household "rule," as evidenced in Anne Wallens's story about a wife who murders her husband in a domestic dispute), alehouses (which burgeoned in the period, and are warned against in "The Good-fellowes Advice"), and a plethora of other social, religious, and political issues. But the singular importance of such printed ballads began to wane toward the end of the 17th century, as reflected in their format. Printed ballads became smaller—often just slips of paper—the decorative black letter was increasingly displaced by simple white letter or roman print, and much of the ornament disappeared. Furthermore, ballad sheets began to print the first few bars of music, suggesting a lost common knowledge of old tunes and also increasing competition from newly fashionable songbooks. Thus, after 1700 the ballad ceases to be as readily popular a form and its functions are overtaken by other media, such as songbooks, cheap engravings, newspapers, chapbooks (cheap-books of only a few pages), and finally romance novels. The subject of ballads also shifts, becoming less topical and more narrative, often in a sentimental or romantic mode—the type of ballad we know today in Country and Western songs or strange tales, such as the Headless Horseman. Roxburghe's additions to his collection, in the form of a third volume, as well as the third volume of the Bagford collection and many of the Luttrell and Osterley Park ballads include this later type that reflect the decline of the ballad form; many are half (as opposed to full) folio sheets printed in white letter with few woodcuts. But even these ballads—the last cry of the broadside ballad's heyday—tap into the myriad voicings of the popular culture of their time.

The addition of the Bagford, Luttrell, Huth, and Osterley Park ballad collections to EBBA will further flesh out our understanding of developments in this popular form and its mass appeal. The Huth is especially important for showing the broadside ballad before it fully evolved into its "high" form of the early 17th century (the Huth is the other half of the Britwell ballads, which reside at the Huntington Library, San Marino). The Huth ballads tend to be smaller (half folio versus folio sheets) than broadside ballads of the early 17th century as well as less ornamental. Often they sport only a black "funereal" border and a simple illustration. They also usually have no tunes printed on them, though most would likely have been sung and their tunes can often be recovered with research. They address varied popular topics but focus especially on religious and political controversies. Reflecting the uncertainty of the

Reformation and a new Queen on the throne, they include over a dozen ballads about monstrous births, such as "A discription of a monstrous Chylde" (dated 1562, only four years into Queen Elizabeth's reign), which is interpreted by the author as a "sign" warning all men to "Repent, amende both hygh and lowe, / The woorde of God embrace" (**Appendix 4**). The Bagford ballads, most like the Pepys and Roxburghe in containing many broadsides in the high ornamental form and addressing all sorts of topics for all sorts of people, also include sensational stories, such as "The Lady and the Blackamoor" (Bagford, 1686-88), which tells the tale of the gruesome rape of a Lord's wife and the murder of both her and her children by the Lord's black servant. This is not mindless tabloid-like sensationalism, however, any more than is the Huth's story of monstrous birth; the ballad speaks directly to increasing anxieties in the 17th century over both racialized Others and servants (the servant class was expanding in the period), and perhaps even a wish-fulfillment on the part of oppressed servants for revenge against their often cruel masters. Bagford's and Luttrell's many political ballads also address topical issues in mass-marketed, exaggerated ways, such as the two broadside ballads found in both collections taking opposing stands, in fitting scatological and gustatory metaphors, over the "Rump" Parliament (the English Parliament's name after it was purged in 1648 of those opposed to trying Charles I for high treason): one anti-Rump ballad is titled "Bumm-fodder. Or, Waste-paper Proper to Wipe the Nation's Rump with, or your Own"; the other answers in comic defense, "The Breech Washed by a Friend to the Rump." The Osterley Park ballads more often explore gender conflicts—again reflecting ongoing concerns about sexual roles and domestic issues. An expanded EBBA will become a treasure trove of such varied, mass-marketed voicings.

The Significance of an Expanded EBBA for the Study of English Literature

The addition of the Bagford, Luttrell, Huth, and Osterley Park ballads to EBBA will make a major contribution to various approaches to literary studies. Foremost, the additional collections will advance the recent interest by scholars of early modern literature (1500-1800) in the study of the literary text as a cultural phenomenon (and of cultural phenomena as texts which can be read). Literary cultural criticism arose in the 1980s and was initially concerned primarily with upper class or high culture. The natural next area of focus was the middling sort and the low. Thus in recent years literary cultural critics have specifically turned to the cheap street literature of England and other countries, particularly to the literature of pamphlets about rogues or crafty vagrants. On ballads, there has been less activity, due to the difficulty of accessing the materials. But important new books have appeared by Tessa Watt, Joy Wiltenburg, Dianne Dugaw, and more recently, by Steve Newman and Angela McShane. The expansion of EBBA will be an invaluable research tool for such cultural critics, addressing as it does just about every social topic. The huge number of ballads about love, marriage, and domesticity will prove especially valuable to feminist literary critics. Since Bagford collected fragments of differently printed texts in the first 27 pages of his first album (he had hoped one day to write a history of print), Bagford's collection will be especially valuable to scholars of book history—another rapidly growing area of criticism. Viewing the Bagford together with earlier and later printed ballads, such as the 16th century Huth and the Roxburghe collection (which includes a fair number of early 18th century ballads), scholars will be in a rare position to trace detailed changes in printers and printing practices over a significant expanse of time. Our planned analytic visualization tool (see "*Human Web Gateway: 'Screenside'*") will permit scholars to map such various changes in multiple revelatory ways.

Particularly available now will be a fuller study of the broadside ballad in relation to other literary genres that evolved alongside broadside ballads. For instance, there are several elegies in the Huth collection (and even more in its "other half," the Britwell ballads, which EBBA plans later to archive). The genre of elegy is not prominent in the Pepys and Roxburghe collections, but it resurfaces with a vengeance in the Luttrell, suggesting a deliberate revival of the 16th century ballad elegy by some 17th century ballad printers, perhaps in an effort to elevate the ballad for a more refined audience. Consider, for instance, the following title to a Luttrell ballad (or is it a ballad?), dated 1681:

A
𝕳𝐞𝐰 𝐚𝐧𝐝 𝐂𝐫𝐲 𝐚𝐟𝐭𝐞𝐫 𝐁𝐥𝐨𝐨𝐝 & 𝐌𝐮𝐫𝐭𝐡𝐞𝐫:

O R A N

E L E G I E

O N

The moſt barbarous Murther of *Thomas Thinn,* Eſq:

With ſome thankful Ejaculations to Heaven, for the Miraculous Eſcape of his Grace the Duke of *Monmouth*
from the Hands of the *Bloody Ruffians*

This "Elegie" is printed in white letter with no ornament or song, but part of its title is in black letter and clearly aims at mass appeal with its "Hew and Cry after Blood & Murther." The title thus hovers between the high and the low, between refined elegy and gory tabloid. Is it turning away from or towards the traditional broadside ballad? It appears to be doing both. The Luttrell's many elegies ask us to rethink the ballad form as it continues to reinvent itself in the course of the 17th century. New collections added to EBBA will thus make a significant contribution to literary studies of many kinds.

The Significance of an Expanded EBBA for the Study of Art History

Art historians have yet to explore fully the importance of early modern ballads to England's visual culture. To date, the popular art of the ballad has been overshadowed in academic inquiries by prints sold on the upper end of the market. And yet, the visual content of ballads, like their texts—which ranges from the pious to the obscene and the traditional to the topical—appealed to members of all classes and was very much a part of their lived appreciation of art. Ballads were not only read or sung but were passed from hand to hand as keepsakes and posted proudly on walls as decoration. Such circulation contributes to recent art historical inquiries into the social uses of printed matter in England.

The aesthetic features of ballads are also of vital significance to scholars of print history, though, once again, this remains largely uncharted territory. Few art historians have talked in any sustained way about ballad woodcuts or "impressions" (EBBA's term for the printed images, since we don't have the actual woodcuts but only the images or <u>impressions</u> made by them on a ballad sheet). A rare exception is Alexandra Franklin (at the Bodleian Library) who has an important article on the subject. Sean Shesgreen has extensively studied the related aesthetics of London Cries (broadsheets which picture street sellers in London hawking their goods). But there is a whole new area of art historical research waiting to be explored on ballad impressions, and even on black-letter print as an aesthetic artifact, which EBBA will encourage by making high quality digital images of the ballads available for examination. An expanded database will also offer scholars thicker levels of impression description and the ability to track the recurrence of similar impressions from ballad to ballad within and across collections.

It is important to be able to make such associations, since similar impressions often reappear dozens of times on broadside ballads. For example, the tavern scene in "The Good-fellowes Advice" (**Appendix 3**) is a favorite in ballads about good fellowship and drink. When multiple impressions are made from a tailor-made woodcut (or by a retracing of the cut), meanings especially grow. Consider, for instance, the associated impressions for "The Lady and the Blackamoor" ballad mentioned above. With the addition of the Bagford collection, EBBA will be able to offer four associated impressions for this ballad (**Appendix 5**). All four impressions convey the dominance of the "savage" blackamoor servant and the submission of the Lord, his master. The early Roxburghe image (#2) is probably made from a woodcut that was a retracing of the worm-eaten woodcut that made the Pepys impression (#1), part of which has broken off (missing in the middle left of #1 is the figure of the dead lord, who at the demand of the Moor, cut off his nose in a failed attempt to save his wife and remaining child). Slight changes are evident between the two impressions—in the direction the Blackamoor faces and in the folds of his loin cloth. The second Roxburghe impression (#3), however, though clearly made from a new cut, is also clearly based more on the Pepys (#1) than on the earlier Roxburghe woodcut (#2): the dead lord remains missing (as now does

his horse—a tree grows in its place). The Bagford impression (#4) is likely made from the same woodcut as made #2, since the details of the two impressions are very close, though they are much clearer in the Bagford. The importance of the Bagford impression in this series of associations, then, is that it verifies what is unclear in the earlier Roxburghe version (#2)—that the woodcut included the dead Lord—and it thus also makes clear three represented timelines (past—in the background, the Lord out hunting; present—in the foreground, the Lord begging for his family's life; and future—in the middle ground, the de-nosed Lord lying dead). The Bagford impression, in sum, makes clear what might be surprising to some modern viewers: that ballad woodcuts, though crude, could be representationally very inventive.

The Bagford, Luttrell, Huth, and Osterley Park ballads are full of such wonderfully "telling" impressions that talk to each other at the same time as they talk to us, and, with sophisticated means of associations, can be read by art historians and even by more lowly appreciators of art (for whom they were intended).

The Significance of an Expanded EBBA for the Study of Music

The addition of the Bagford, Luttrell, Huth, and Osterley Park ballads to EBBA will further enhance EBBA's function as an invaluable research tool for anyone studying the music of late 16th through 18th century England. Currently, one who wants to hear ballad texts and tunes together has to look up the ballad and its tune in separate sources, and then has to put the two together themselves. For most music scholars this is not a particularly difficult process, but it is laborious and time-consuming. Our music specialist estimates that it takes about 3 hours to find the correct tune for a ballad, learn it, and record it. By providing on a single site both text and tune whenever it is extant (1,200 tunes for the Pepys, about 800 for the Roxburghe, and an estimated 600 for our four new collections), an expanded EBBA will save thousands of hours of research time for others and provide instant accessibility for use in the classroom.

Perhaps the greatest benefit for musicologists and ethnomusicologists is EBBA's usefulness as a teaching tool. Many students (not just those who study music) are far more comfortable conducting research on the internet than they are in working with actual book sources. But most websites that deal with English balladry are unreliable, often designed by hobbyists with the folk singer in mind rather than by experts for the researcher of broadside music. EBBA provides teachers with a site of accurate tunes that is dependable and consistent in quality to which they can send their students. And it allows those listening to the song to quickly change over to the "facsimile transcription" if any words or phrases are unclear.

By connecting the ballads with their tunes, EBBA will also encourage more students and scholars to use this extremely important collection as a resource for the greater understanding of the music and culture of the time. Listening to "The Lady's Fall" (or "In Peascod Time"), to which the gruesome story of "The Lady and the Blackamoor" was sung <http://ebba.english.ucsb.edu/ballad/20261/recording>, we hear how tunes could function in counterpoint and relief to otherwise overwhelmingly brutal tales. Since the real-time tunes lengthen the experience of the ballad—an average ballad song lasts 8 to 12 minutes, unlike today's typical song of 3-4 minutes—the song slows down time and invites the audience to inhabit the experience of the ballad in a way neither the text nor the art alone can. Without the ballad tune, the ballad experience is literally diminished. Finally, as we find ballad songs increasingly towards the end of the 17th century rehearsing tunes from the theaters (and vice versa), we recognize the natural flow of music through every facet of contemporary culture. In some cases, we can see up front the theatrical style of broadside music—a fact of interest to both ethnomusicologists and drama specialists. The connection of late 17th century broadside ballads not only to the theater but also to songbooks is especially evident in the Osterley Park ballads, such as "The Indifferent Lover," taken from a John Dryden play with music composed by Henry Purcell: the ballad is "To a Pleasant new Tune, Sung in the last new Comedy, called *Amphytrion*, Or, *Fond Boy,*" and sports an impression of music notation (**Appendix 6**). As EBBA expands its holdings, students will be able to find thousands of such new and recurrent tunes (even if the title for the same tune changes, as it often did) within and between individual collections of ballads.

The Significance of an Expanded EBBA for the Study of Ballad Collectors/Owners

The addition of the Bagford, Luttrell, Huth, and Osterley Park collections to EBBA will offer a much broader perspective on ballad collecting in the 16th through the 18th centuries. Joining Samuel Pepys and the many collectors of the Roxburghe collection, whose activities extended into the 18th century (Robert Harley, Earl of Oxford; Major Thomas Pearson; John, 3rd Duke of Roxburghe; and Benjamin Heywood Bright) will be four new collectors, some with similar and others with very different approaches to their collecting. Bagford acts as lynchpin to Pepys and Harley. He was hired by both to acquire ballads for their own collections. Bagford and the Huth collector (William Fitch) offer the added perspective of the middling sorts (Bagford was a bookseller and Fitch a postmaster), and Fitch has the further advantage of taking us outside of London, as he was postmaster of Ipswich. Does their de-centered social and/or spatial status alter the way they assembled their collections? And how representative is Fitch as collector of 16th century ballads, if only an estimated total of 250 printed ballads survive from that period? Bagford also raises questions about his priorities in collecting, since his three volume ballad collection appears to begin as a collection of different printing styles in the service of his planned history of print. What made Bagford turn from print fragments solely to broadside ballads? What did he see in the printed text of ballads, or what can we see in the ballads he collected, that "fit" into a history of print? In what ways did Narcisuss Luttrell's political ambitions and viewpoints (he wrote a chronicle of Parliament) affect the kinds of political ballads and elegies he collected? And who is the collector of the Osterley Park ballads? How is he like or unlike the other ballad collectors represented in EBBA? All these collectors aimed at preserving specifically early broadside ballads, but to what extent are their contributions as much a reflection of their personal interests as of the period in which the ballads they collected were printed? Answering such questions will advance the study of ballad collecting and antiquarianism generally.

Just as an expanded EBBA encourages us to think about developments of the broadside ballad as a cultural, literary, artistic, and musical phenomenon as well as about ballad collecting and antiquarianism, so it prompts more work on other valuable collections of the time. EBBA's long-term goal is to archive all 17th-century broadside ballads (see "*Duration of the Project*" and "Work Plan"), thus making the printed ballad "heyday" fully and freely accessible to scholars, teachers, students, and the general public.

B. History, Scope, and Duration

The Early Modern Center, UCSB

An expanded EBBA will be amply supported intellectually, technically, and institutionally by the Early Modern Center (EMC) <http://emc.english.ucsb.edu> of the English Department at the University of California–Santa Barbara. Founded in 2000 with funding from the College of Humanities and Social Sciences and the English Department at UCSB—and receiving in 2007 a $600,000 endowment to ensure its longevity—the EMC sponsors colloquia, conferences, and courses around annual themes as well as collaborative research between faculty and students in English Literature and Culture, 1500-1800, and in related disciplines of early modern studies. In addition to a reference library, the Center houses ten computers, a data projector, a flatbed scanner, black-and-white and color printers, and provides full access to EEBO, EEBO-TCP, and ECCO. Ten English Department faculty and twenty-five in-residence English Department graduate students, as well as about a dozen undergraduates specializing in early modern English studies, make up its intellectual core. Affiliated faculty and students are also active in the Center's programs, especially from Art History, History, and Music. Many are part of the large EBBA team that is over 100 strong: see <http://ebba.english.ucsb.edu/page/team>. The EMC also draws on the rich resource of Literature.Culture.Media (formerly Transcriptions), a studio in the English Department devoted to the intersection between literature and technology founded by Alan Liu. In addition, the English Department has a full-time staff person who manages all our computer-related equipment. Thus

supported, the EMC maintains a strong cyber presence. EBBA is its latest and largest project.

Initial Support and Development

With a modest UCSB Instructional Improvement Grant of $5,000 for 2003-04, a seedling EMC ballad team began research and planning on obtaining permissions for EBBA, and on how best to structure the database for mounting ballad images and other relevant information. We consulted extensively with the staff at EEBO and EEBO-TCP as well as inquired into the procedures of the Blake Archive, a comparable enterprise which also involves both texts and images. In addition, we formed an Advisory Board, with which we further consulted, and sought out specialists within the UC system on data archives, music historiography, and electronic databases. We also researched companies that are expert at converting microfilm to high resolution digital images since at the time this seemed the most viable way to digitize hard-to-access collections. After this intensive initial period of inquiry and consultation, we decided it was best not to work jointly with EEBO, mainly because of the protracted problems EEBO was experiencing in mounting ballads, and began negotiations directly with the Pepys Library for digitizing its holdings. In early June of 2003, we successfully obtained unprecedented permission rights from the Pepys Library to begin work on mounting, transcribing, and recording their more than 1,800 ballads.

The EMC then worked hard to procure $133,000 in UCSB and UC funding for 2004-06 to advance the Pepys Ballad Archive, including a UC-Humanities Research Institute Grant which, together with cost-share from UCSB, provided us with $20,000 for a two-day "Straws in the Wind" conference in 2006 featuring distinguished and new-to-the-field scholars working on broadside ballads. An edition including 17 critical essays emerged from that conference, co-edited by Fumerton and Anita Guerrini (History, Oregon State University), which is forthcoming from Ashgate Press. In the face of depleted funds, we were awarded an NEH Reference Materials Grant for 2006-08 to complete the PBA. The grant consisted of $325,000 from the NEH and co-support of $192,899 from UCSB.

In advance of starting this NEH grant, we had already mounted online images of the Pepys ballads in two formats: the "uncropped Pepys page" (which includes much of the wide, white border of the album page onto which the trimmed and often cut ballad was pasted, sometimes with Pepys's hand-written page number visible in the upper corner) and the "ballad facsimile" (in which the album border is removed and the cut ballads are put back together to represent the way in which ballads were originally printed). Subsequently, we have removed the "uncropped Pepys page" from the archive, as not scholarly useful, since fuller investigation into the microfilming done by the Pepys photographer revealed that the album sheets were unbound at the time of filming and also that the photographer did not always pull back far enough to capture the full album page. We hope in the future to be able to fund color photographing of the now-bound albums books. For the present, EBBA offers two valuable Pepys image views: "ballad facsimiles," as described above," and "facsimile transcriptions" (where the original text of the facsimile is replaced with modern roman type for easy reading, but the original illustrations and aesthetic layout of the ballads are preserved). The PBA, now complete, consists of over 1,800 ballads each archived with these two views—in adjustable sizes—together with an additional view purely of the "text transcription," from which page the user can also click on a link to "View Raw XML," and see the TEI/XML for cataloguing and text. Also completed are detailed citation entries for each ballad, both in regular and in MARC format (created in consultation with Henry Snyder, Director of the North American ESTC); standardized keywording of the ballads; standardized cataloguing of all Pepys ballad impressions ("woodcuts"); recordings of all 1,200 extant tunes of the 1,800 ballads; simple and advanced search mechanisms; and background essays on ballad culture as well as on Pepys's categories for organizing his collection.

When we heard the wonderful news that EBBA had been awarded an NEH grant for 2008-10 to archive the BL's Roxburghe ballads, we delayed start on that grant by a summer so that we could tie off loose Pepys ends (for instance, identify interleaved pages in his albums) and also ready our projected new

EBBA website for inclusion of multiple archives. We were excited that the BL was receptive to color photography of the collection as color images allow one to see variations in the ballad ink and colors of the papers used, and especially the difference in the color of the ballad sheet and album paper (so that the line where the cropped ballad ends and the album page begins will be clearly visible). But work on the new EBBA website has been delayed due to the subsequent long and time-consuming negotiations with the BL over a mutually acceptable license to publish their color images online. Negotiations took a full 15 months to complete and over a thousand hours of Fumerton's time as well as hundreds of hours from the time of key members of her team (EBBA Associate Director, Carl Stahmer, and Assistant Director, Kris McAbee), not to mention the time of experts in UCSB's Business Services, Office of Research, and UC lawyers. The bad news is that these lengthy negotiations drew us away from work toward launching our new website, especially since Stahmer is also our digital specialist. But the good news is that we found additional funding from UCSB to cover the costs of the extensive hours spent in legal wrangling so as not to drain NEH funding away from the real work on the Roxburghe project, and—in a truly landmark achievement between a North American institution and the British Library—as of April 2009 we have a co-signed license between UC and the BL and thus a legal template for future archiving of BL collections.

This co-signed license satisfies both the BL and fulfills EBBA's proposed work plan: the BL will provide EBBA with color digital images at 600 dpi of the album pages of the Roxburghe collection—photography is now underway!—and EBBA will provide black-and-while digital images at 600 dpi made from microfilm for the manipulated views of the ballad images: the "ballad facsimiles" and "facsimile transcriptions." The BL had been concerned about significant "manipulation" of the color photos of its originals, so this is an ideal compromise. EBBA secured additional funding to pay for the digitization of the microfilm and, working with Jo-Anne Hogan at Proquest, located the National Archive Publishing Company, which originally microfilmed the Roxburghe ballads for UMI (now Proquest). NAPC made 600 dpi digital images from its negatives, which arrived June 12th; EBBA confirmed their high quality.

While we awaited completion of a license to begin work on the Roxburghe images, EBBA continued to advance other aspects of the project so as not to fall behind schedule. As of June '09 all the Roxburghe ballads have been catalogued and the cataloguing mounted online; all the tunes have been researched; and some 300 ballads have been transcribed from microfilm. This summer a mega-team of 12 graduate students is working to transcribe the rest of the Roxburghe ballads under the direction of McAbee, and another mega-team of 3 graduate students and 7 undergraduates are working to record about 250 tunes under the direction of ethnomusicologist, Nichole Dechaine (who trained last summer under our previous Music Specialist, Katherine Meizel). We estimate that there are approximately 800 extant Roxburghe tunes, so by the end of the summer we should be close to completing 1/3rd of the recordings (since Dechaine spent a good part of this year researching tunes, singing can now proceed swiftly).

Also, with a Herculean push on all fronts, the new EBBA website is now complete and can be viewed at http://ebba.english.ucsb.edu. The site contains much more data than the original EBBA website, including a history of the project, a full explanation of the different image views and cataloguing system, a bibliography, and background essays on the Roxburghe collection. Stahmer continues to update and fine-tune EBBA's new website and search mechanisms, which is an ongoing process.

During this summer of 2009, in addition to the work on transcribing and recording, a team of 2 graduate students will begin creating "ballad facsimiles" from the digitized Roxburghe microfilm. In the fall, one graduate student working 50% time and 2-3 working 25% time will make fine adjustments to the BL's color album photographs (cropping the ruler and other unnecessary details from the images) and mount both the color "album facsimiles" and the black-and-white "ballad facsimiles" online. Another graduate student will work 50% time with 2-3 others at 25% time creating "facsimile transcriptions"; this work will extend through to spring. In June 2010, a large team of 12 graduate students will create XML encodings of the cataloguing and transcriptions through "X-Ballad" (see "*Cataloguing Interface: 'X-*

Ballad 2.0'"). EBBA's library team, led by Elaine McCracken, will then make MARC records from our TEI/XML. Tune recordings will continue throughout the year with the same team from the summer of '09. While some minor "tying up" of the project will likely continue beyond July '10, we fully expect completion of the entire Roxburghe archive in the summer of 2010.

Much of the work on the Roxburghe and Pepys collections is setting the foundation for our third phase of archiving and thus promises to streamline this next phase of EBBA (i.e., invented digital tools for sizing images, for XML-encoding transcriptions and catalogue information, and for searching texts, songs, and images in flexible ways; standardized database of authors, printers, and publishers' names; standardized database of tunes; woodcut keywording systems; and general expertise in cataloguing, transcribing, and digitally mounting ballad images). The EMC is a large ballad studio, with new graduate students entering and being trained on a yearly basis, keeping the core number at about 25. We boast deep experience in early broadside ballads, unrivaled anywhere. It is for this reason that Kristian Jensen, Head of British and Printed Collections at the British Library, inquired whether we would be willing to mount online the BL's early ballad holdings. With a co-signed license now in place, we are perfectly poised to continue work on other important BL ballad holdings. In November, Fumerton will be an invited speaker at a conference on broadsides and ballads at Oxford University, and will present with EBBA Associate Director Stahmer and Eric Nebeker, another member of the project team; EBBA Assistant Director McAbee will also accompany us. We will use this opportunity to disseminate information about EBBA's offerings, to open discussions with the Bodleian Library at Oxford about including their early ballad holdings in EBBA, and to visit the BL in London to discuss in more detail the next phase of archiving its ballads.

This next phase of EBBA, however, cannot go forward without NEH funding. The University of California is in a dire financial crisis, as is the entire state. UCSB cut its budget by 20% earlier this year and is facing even larger and more drastic cuts beginning in August. However—and this is an extraordinary show of support for EBBA on the part of the University—UCSB has pledged cost-share toward the new grant in the sum of $190,838. Also impressive, the University of Texas-Dallas has pledged $20,000 in the form of faculty and graduate student support (UTD hired as tenure-track faculty a key EBBA team member, Jessica Murphy, and wants her to cultivate future collaboration with EBBA). In sum, co-support for this new grant is there; but it will disappear without NEH funding.

Duration of the Project

Completion of adding the Bagford, Luttrell, Huth, and Osterley Park ballads to EBBA will take twenty-four months of work by a ballad team consisting of 10 graduate students working part-time during the summer months and 1 graduate student working half-time, together with 6 graduate students working part-time during the academic years. These graduate students will be led by myself and Kris McAbee, Assistant Director of EBBA, as well as by Nichole Dechaine, EBBA's Music Specialist. Laura Mandell, TEI expert, Henry Snyder, Library Catalogue and ESTC expert, and Revell Carr, ethnomusicology expert, will serve as consultants. In addition, Carl Stahmer, EBBA Associate Director and XML and imaging specialist, will continue to manage the image processing and XML-encoding of the ballads as well as to enhance EBBA's technological infrastructure: creating an integrated, web-based GUI interface for cataloguing and managing our holdings and fuller cross-referencing tunes and illustrations across collections, as well as expanding EBBA's already sophisticated web gateway by adding more analytic tools, such as the ability to map the evolution of formal features of the ballad over time via advanced visualization techniques. For a fuller schedule of work, please see Section D, Work Plan.

Upon the complete archiving of the four collections specified for this grant, we plan to move on to include in EBBA other important ballad collections of the late 16th through the early 18th centuries, focusing on difficult-to-access collections of 17th century black-letter broadside ballads. These include two unnamed collections and scattered broadside ballads in the Thomason Tracts at the BL. Also

important are the Euing collection at Glasgow University and the Halliwell-Phillips collection at Chetham Library, Manchester. Within the U.S., broadside ballad collections important for EBBA include the Britwell ballads (the other half of the BL's Huth collection) now at the Huntington Library, San Marino; another set of Britwell ballads at the Chapin Library, Williams College; and the many small collections (such as the Bute ballads) at the Houghton Library, Harvard. Finally, we want to include in EBBA the many small but important collections (Wood, Firth, etc.) at the Bodleian Library, Oxford. Though the Bodleian has online images of its ballads digitized from microfilm, they are very low quality and their cataloguing is minimal. We hope to re-photograph and re-archive these ballads according to EBBA's high standards as well as include them in the EBBA database, thus simultaneously enhancing appreciation of the Bodleian ballads and making all broadside ballad collections searchable from a single site. We expect that the expanded achievements of EBBA will prove our worthiness to the Bodleian to take on this task.

Even at its current size, EBBA's great wealth of data has made it a desired dataset focus for two "Digging into Data" grant proposals, on which EBBA is partnering. Attached is a letter of support from Raymond G. Siemens, co-PI for one of these DiD proposals and distinguished Canada Research Chair in Humanities Computing as well as Professor of Renaissance English and Computer Science at the University of Victoria (**Appendix 17**). Increasing EBBA's data and functionality through a Humanities Collections and Reference Resources Grant will further increase its contribution to such important data-analysis projects. An expanded EBBA will also facilitate our efforts to secure funding for later phases of the ballad archive from major foundations such as the Mellon.

C. Methodology and Standards

Mounting the Ballad Images

From the BL's 600 dpi color digital TIFF images of the Bagford, Luttrell, Huth, and Osterley Park collections, EBBA will create JPEGs of "album facsimiles." From digitized microfilm at 600 dpi, we will produce "ballad facsimiles" and "facsimile transcriptions." The album facsimiles will reflect the ballad as it appears assembled in the album, showing any album border and binding. Because ballads were usually trimmed and often divided before assembled into albums, the ballad facsimile will digitally put the ballad "back together" so that it can be seen as it might have appeared when originally printed. Finally, the facsimile transcriptions remove the original print and replace it with modern type, so that users can easily read the ballads without sacrificing understanding of the relationships between the illustrations and the texts (for an example of the three views for Bagford 2.56 see **Appendix 7a-7c2**). By toggling between all three image views, a user gains appreciation of the way the ballads were collected over time (via the album facsimile), of how they emerged from the printing press in their own time (via the ballad facsimile), and of how a literate contemporary might have read the ballad—that is, with the same ease we read modern print—while also admiring its ornament (via the facsimile transcription). Finally the ballad transcription is viewable as "text transcription" (from which one can link to the "raw xml") and integrated into the database to enable full text searching of the ballads.

Cataloguing the Ballads

As with the Pepys and Roxburghe ballads, the new additions to EBBA will be catalogued using the ESTC and BL's MARC records as our starting point. However, in keeping with careful decisions made in developing EBBA, we will add important information that supplements current MARC records. The following aspects of each ballad will thus also be catalogued: "refrain"; "imprint"; "license"; "format"; "references"; and "keywords" (via a drop-down list to ensure consistency and transparency of the keywording system, though additional keywords can also be added by the cataloguer should the need arise). We will further divide the category "format" into: "page"; "condition"; and "ornament." Our cataloguing retains original spellings for titles, first lines, and refrains. We modify the "long s" or "ʃ" but

maintain vv for w, and i for j. However, part of X-Ballad's functionality includes generating a version of the ballad titles with modern spelling so that a user may search for "frolic" or "frollic" and find the ballads they are interested in, no matter which spelling is used. Advertisements, textual and stanzaic irregularities, versos and rectos, additional author information, and other known and helpful facts about the ballad and its publication are also listed in the "notes" section. This cataloguing system ensures granularity for the XML metadata that will accompany each ballad. For a sample citation result, see **Appendix 8**. Tunes are additionally catalogued and separately searchable by imprint, tune title (in original and modern spellings), and standard tune title (the title assigned to variant names of the same tune); for a sample tune result, see **Appendix 9**. Woodcut impressions are separately catalogued and searchable by keywords (via a drop-down list), and, in our new cataloguing interface, will be treated like independent objects that can be associated with each other (see "*Cataloguing Interface: 'X-Ballad 2.0'*"; and **Appendix 10***).

Essays on Ballad Culture & Printing and on Specific Collections

The essays on ballad "Culture & Printing" (on the new EBBA website under "Resources") are the product of graduate courses taught by Fumerton. They were written and revised by graduate students under Fumerton's direction and cover such topics as ballad circulation, papermaking, sheet sizes, black-letter print, woodcuts, music, and ballad measure as well as the broadside ballad heyday and social function. Each essay is meant to familiarize the reader with issues surrounding the cultural production and appreciation of ballads in early modern England (see <http://ebba.english.ucsb.edu/page/ballad-culture>). Also already online in EBBA are extensive essays on the Pepys collection <http://ebba.english.ucsb.edu/page/pepys> and preliminary essays on the Roxburghe collection <http://ebba.english.ucsb.edu/page/roxburghe>. In winter 2010, with the Roxburghe cataloguing and ballad images all mounted in EBBA, Fumerton will teach another graduate course which will allow students to add more essays on the development of the broadside ballad and on the individual Roxburghe collectors. Once the Bagford, Luttrell, Huth, and Osterley Park ballads are archived, more informative essays will be created in graduate courses taught both at UCSB (by Fumerton) and at UTD (by Murphy).

Ballad Transcriptions

The objective of EBBA is to provide four-pronged access to the Bagford, Luttrell, Huth, and Osterley Park ballads: via album facsimiles, ballad facsimile reconstructions, facsimile transcriptions, and text transcriptions/XML encodings. By "facsimile transcriptions," we mean facsimile reproductions of all the ornament of the ballads (pictures and border decoration) as arranged on the original broadsheet, but with a conversion of the older (usually black-letter) font into modern roman font (see **Appendix 7c1-c2**). Thus, in viewing a facsimile transcription, users will get a very good sense of what the ballad originally looked like while at the same time being able to read the text with ease. A readable print-out of the ballads will also be producible for inclusion in class Readers. Making the decision of just how much to "modernize" the original text was difficult and time-consuming. We consulted other modern editions of early broadside ballads, such as Ebsworth's *Bagford Ballads*, and concluded that they were often too free in altering the punctuation and spelling of the originals, or in not indicating when words were being guessed at or reconstructed from another edition of the ballad. In the end, we decided that it was important to preserve most of the original spelling of the ballad, so as to capture a "feel" of the original text, while at the same time converting to modern print the features of the original type that impede readability for the non expert. After extensive discussion by members of the ballad team, we adopted a set of rules for transcribing the original text to modern font (see <http://ebba.english.ucsb.edu/page/transcriptions>).

Accuracy and the Search for Errors

Transcription is simultaneously a simple and difficult process. Even when an area of print is not smeared or faded, the transcriber has a tendency to "self-correct" the original spelling by fully modernizing it: e.g.,

by typing out "foole" as "fool," thus psychologically blocking out the final "e" in the original. In addition, hard-to-read areas of text often cannot be deciphered without retracing one's reading and contextualizing the passage. Some words or phrases cannot be reconstructed without checking the passage against other extant editions of the ballad (via EEBO or the ESTC), if they are online. Sometimes modern printed transcriptions, if available, can also be helpful, though they must be consulted with suspicion. No matter how well the challenges are tackled by a transcriber, mistakes are often made because the act of transcribing is detail work. To ensure the highest level of accuracy, we use the transcription industry practice of "double keying." Each ballad will be independently transcribed by two people and saved as Rich Text Files. The transcriptions will then be compared using Microsoft Word's Merge Documents feature. This technique has proven to reduce checking time while at the same time increasing accuracy.

Recordings

In performing the ballads, we will employ the same standards established for the Pepys and Roxburghe collections. We have carefully considered a number of factors that impact the interpretation of the ballad as song. It is impossible for us to know exactly how ballads were sung during the 16th through the 18th centuries. What we do know about the vocal timbre and inflection of British ballad singing, as it has survived in contemporary tradition, comes from field recordings made in the mid 20th century. While these recordings inform our vocal production, we want to avoid imitation, especially in regards to accent, making pronunciation choices sometimes difficult. While we do not attempt to imitate English accents, we find that certain rhyme schemes and scansions work better when we adopt archaic speech patterns. We have chosen to use a comfortable, "natural" speaking tone, tending towards clear articulation, with minimal ornamentation and vibrato, so as to not obscure the basic melody or text. In some cases we use conventional ornaments when we feel they would enhance the effect of the lyrics.

We have also decided to record most of the ballads *a cappella*, for several reasons. Our primary purpose is to help people connect the ballad with the tune. A solo voice gives the most unadorned version of the melody, so as to clearly illustrate the connection between words and music. The ballad tradition is a singer's tradition, and we want to highlight the art of unaccompanied balladry. As part of that oral performance, you will sometimes notice slight variations in what the singer sings and the words on the page; this is a natural part of oral performance that we embrace rather than try to correct. It should also be noted that later ballads, especially those from the Osterley Park collection, contain many examples of theatrical ballads, with tunes written or adapted by Henry Purcell, Thomas D'Urfey, and others to instrumental accompaniment; in these ballads, the singers will be accompanied on a virginal (a small harpsichord), to demonstrate a style of period accompaniment.

There are only a handful of works on the tunes of broadsides, starting with William Chappell's *Popular Music of the Olden Times*, which laid the foundation upon which subsequent collections were built. Today, however, the most comprehensive and well-researched work is still Claude Simpson's *The British Broadside Ballad and its Music* (1966), which provides transcriptions of unadorned melodies, painstakingly researched and reconstructed, combined with detailed references to the historical sources of the tunes. The goal of EBBA is to provide sound recordings of every ballad in the Bagford, Luttrell, Huth, and Osterley Park collections for which there is a known tune—in the neighborhood of 600 ballads.

The ballad tunes will be sung by graduate and undergraduate students who have been trained in singing as well as in ethnomusicology. UCSB provides EBBA with a state-of-the-art recording studio and staff support; the songs are thus recorded to the highest recording standards.

Digital Technology

The technical component of EBBA is currently being managed by Kris McAbee, a recent graduate of

UCSB, lecturer in the English Department, and Assistant Director of EBBA. McAbee has expertise both in database design and maintenance and in early modern literature and culture. Much of the information architecture is designed by Carl Stahmer, Associate Director of EBBA and Web/database/XML program specialist. McAbee and Stahmer work in consultation with Alan Liu, Director of the UCSB Transliteracies Project, Webmaster of Voice of the Shuttle, and professor of literature and technology, as well as with other members of the EBBA Advisory Board, such as Elaine McCracken, Serials & Electronic Resources Librarian, Davidson Library, UCSB.

Information Architecture

The information architecture for this project builds upon that developed for the NEH funded Roxburghe and Pepys initiatives. It utilizes a four-pronged Image/Recording/Database (SQL)/XML backbone to ensure the scholarly value of the collection, a web-based user interface, and the interchangeability of resources across users and platforms. The archive proper is comprised of a collection of high-resolution images of each ballad, sound recordings of associated tunes, a database catalogue, and corresponding XML files of holdings that include both formal markup of texts and human and machine-readable metadata. Access to the archive is provided in both human and machine readable formats. An advanced web gateway allows users to search, browse, and view archive holdings. Additionally, raw TEI/XML and RDF/XML as well as MARC records for all entries provide web-service/object exchange capabilities. New funding will allow us to enhance existing functionalities and add new capabilities at both the human and machine readable levels as well as to augment EBBA's production infrastructure.

TEI/XML Encoding

Ballad transcriptions will be encoded using the TEI conformant XML schema already implemented by EBBA, which conforms to the TEI P5 standard. In addition, Julia Flanders, Vice-Chair of the TEI Consortium, will lead a 3-day NEH funded workshop on TEI at UCSB, September 14-16, 2009, hosted by EBBA and Transliteracies during which time she will evaluate our implementation of TEI standards.

Cataloguing Interface: "X-Ballad 2.0"

XML representations of EBBA holdings are produced using an XML editing and production interface called X-Ballad, developed by Stahmer specifically for EBBA. X-Ballad provides a point-and-click interface that allows users with no TEI or XML experience to easily encode formal textual elements with the click of a mouse, to automatically convert all Microsoft Word or RTF formatting (such as bold and italic typeface and line-breaks) to XML, and to manage and include in the XML all metadata about the ballad using a simple, human readable interface. X-Ballad eliminates the need for scholars to be familiar with TEI syntax. Users simply enter and/or select appropriate segments of text using a form, and X-Ballad converts this information into appropriate TEI/XML. (**Appendix 11** provides a screen shot of X-Ballad's Imprint interface and a snapshot of the relevant section of the TEI header for an X-Ballad encoded work that shows the conversion of data to TEI.)

X-Ballad is currently a fully functioning application; however, X-Ballad was developed nearly five years ago and its architecture is rooted in EBBA's old, Window's based technology and workflow. Under the current version, X-Ballad's TEI/XML output must be parsed (using a custom-programmed Java application) and imported into the EBBA database. Additional parsing/transformation routines are also required in order to produce machine readable RDF/XML and MARC files. This process, while functional, is highly inefficient at both the technological and workflow levels. Under this grant, X-Ballad's root architecture would be completely re-designed such that all work in X-Ballad will result in simultaneous creation or update of the database, TEI/XML, and machine readable RDF/XML and MARC files. X-Ballad will also be expanded to include functionalities for management not only of the ballads

themselves, but also of the Tunes and Woodcuts/Impressions. Each recording file and Woodcut/Impression will be treated as an independent object that is associated with a ballad(s) so that it can be catalogued and searched independently as well as in its ballad context (for a mock-up of the new Woodcuts/Impressions interface see **Appendix 10**). X-Ballad 2.0 will provide a completely web-based, one-stop GUI for management of EBBA's resources in all their forms.

Database Design: "Chapman"

As part of our last round of funding, EBBA's database was migrated from its original instantiation as a Microsoft SQL database to an open-source mySQL database, and its data structure was made both more relational and collection agnostic so that it would be suited to catalogue ballads from multiple collections. As part of this grant, this new data structure will be enhanced in order to accommodate a more thick collection of metadata. This enhanced metadata set will include a more detailed cataloguing system for ballad woodcuts and ornamentation (which together comprise what EBBA calls "Impressions") as well as new metadata specifically designed to capture the evolution of the ballad form over time.

Human Web Gateway: "Screenside"

In July of '09 EBBA was migrated from a Microsoft Active Server Pages (ASP) application hosted on a Microsoft Internet Information Server (IIS) to a Linux platform running Apache and Tomcat web servers, and the user interface was reconstructed as an open source PHP, Java, and javascript application. This move involved a redesign of the current user interface, the addition of enhanced search and browse interfaces, and the integration of a custom image-viewing interface as described below. EBBA's web interface currently provides advanced search, browse, and display capabilities, allowing users to restrict searching and browsing on any combination of EBBA's metadata categories and to view results in a variety of forms, including the various images that EBBA houses for each ballad, raw TEI/XML, text transcriptions, etc. Under this grant, we will push the functionality of EBBA's new web gateway beyond its current state-of-the art search, browse, and display capabilities by adding a completely new set of analytic functionalities. With the addition of the collections included in this grant, EBBA will contain a thick set of data representing half of extant ballads. Such a thick dataset is useful not only for providing end-users with access to individual ballads but also the possibility of performing statistical analysis of ballads that was previously near impossible. For example, using our new analytic capabilities, a user will be able to graphically plot the presence/non-presence of black-letter type on printed ballads in a timeline with the click of a mouse (**Appendix 12**). Without EBBA, this type of analysis would take months, if not years to perform, as it would involve traveling to each of the collections to gather, record, and tabulate data, and then create a visual representation. Allowing users to perform such statistical analysis on a large dataset will open up whole new modes of ballad scholarship.

Machine Web Gateway: "Cyberside"

The evolution of Web 2.0 has underscored the need for presentation of resources in a manner that facilitates computer-to-computer information exchange. In order to accommodate object exchange, EBBA currently provides a "crawlable" index of archive resources represented in RDF-XML with metadata represented in TEI, METS, and MARC-XML formats. Under this grant, we will expand our machine-readable gateway by adding an Open Archives Static Repository XML gateway to our infrastructure. These crossover representations will be computer generated from metadata stored in the XML/SQL database as part of the enhanced X-Ballad 2.0 application described above and will facilitate the ability of other archives and systems to communicate with and incorporate items in EBBA into their own collections and interfaces (Web 2.0).

Image Viewing Interface: "I-Size"

The new EBBA web gateway uses an application called I-Size that was developed by Stahmer specifically for EBBA in order to deliver on-the-fly versions of all ballad images in user requested sizes. I-Size eliminates the need to produce multiple versions of a single image in order to deliver the image to users in the various sizes typically required by a web application—thumbnail, screen-shot, print-resolution, etc. As part of this grant we will enhance I-Size's functionality at both the user and back ends. I-Size will be modified so that it automatically inserts relevant metadata, including licensing and terms of use data as well as cataloguing information directly into the binary JPEG file in the form of XMP data for each image. A World Wide Web Consortium (W3C) standard, XMP ensures that, even if image resources are linked to and/or saved outside of their original Web context, they will contain a digital watermark of relevant copyright, production history, and bibliographic information in a form recognizable to major software applications. At the user level, I-Size's image display capabilities will be enhanced to provide a more complete, Google-Maps style API to allow anchoring of relevant metadata to regions of images as well as to provide a zoom-region overlay map for each image (see **Appendix 13**).

Preparation and Digitizing of Ballad Images

The Bagford, Luttrell, Huth, and Osterley Park ballads will be made available by the BL (in consultation with their conservationists and photographers) in 600 dpi color TIFF format. Although these ballads are simple works artistically, there are gradations in the tone of the ink and paper and even subtle shadings of grey that can be enhanced via color photography. In addition, the act of trimming and sometimes dividing ballads to insert them into albums becomes much more apparent when looking at a color photograph.

The raw TIFF files produced by the BL will be processed by EBBA's technical team and turned into JPEGs for final web deliverability. These will be saved as album facsimiles. The raw TIFF files produced from NAPC microfilm will be manipulated and turned into JPEGs saved as ballad facsimiles and facsimile transcriptions. The JPEG album pages will look very much like the TIFF files delivered by the BL photographer. For the digitized microfilm, however, we will use Adobe Photoshop to trim away any excess border beyond the ballad sheets themselves. Troublesome blocks of text will also be sharpened to render them more readable. As has been noted above, ballad compilers often cut large, two-part ballads in half and pasted each half on facing leaves of the album pages, or one half above the other. Bagford was an avid cropper and cutter of ballads. To recreate the ballad as it looked in the original—what we call a "ballad facsimile"—the EBBA team will put these two-part ballads back together in Adobe Photoshop. Finally, to create the "facsimile transcriptions," or modern type images, an image team has been trained to use Adobe Photoshop to cut out the early modern text of each facsimile and replace it with the appropriate transcribed text. The team follows line breaks and text size convention in the original as closely as possible so that the resulting facsimile transcription resembles the layout of the original ballad. All illustrations adorning the ballad are left untouched, thereby creating a version of the ballad that is easily read, even by those untutored in earlier printing styles, without losing the ballad's aesthetic impact.

Storage, Maintenance, and Protection of Data

Project data is now stored on a Linux server, which resides behind two locked doors after business hours one keyed and one with a keypad. Access to the backend of the project is granted through individual passwords, so no unauthorized changes will occur in the electronic files. The department also has a dedicated network administrator whose job it is to maintain the LAN and service the hardware in the department. Long-term access to the database is ensured technically by the project's production of XML documents, as described above. Administratively, the English Department is committed to sustaining access to the database. However, EBBA's needs have outgrown a shared server with the department and EMC. This grant thus includes funding for a separate EBBA server to accommodate storage and speedy delivery of our ever-increasing number of high-resolution images.

In addition, UCSB's Davidson Library, a member of the Association of Research Libraries, has committed to using its digital infrastructure and expertise to sustain the ballad archive over the long term (see UCSB Library letter of commitment in **Appendix 16**). The Davidson Library is the site of one of the original NSF-funded digital library projects, the Alexandria Digital Library, and as an outgrowth of that work, the library now supports through its regular budget over 40 servers and 5 terabytes of digital text and images. Library technical staff have extensive experience with metadata ingest, persistent archivability, multiple digital object formats, and the application of relevant national standards. The library has three levels of frequently scheduled on- and off-site digital back-up, and is also an active partner in the networking and content management of UC's collaborative California Digital Library.

D. Work Plan

The plan of work schedule listed below is based on the EMC's extensive experience to date with cataloguing ballads; transcribing them; creating facsimile transcriptions; finding authentic tunes, learning those tunes, and recording them. We have determined that it will take on average 30 minutes per ballad to fill out the citation information (which will be facilitated by previous research on the dates and names of authors, printers, and publishers of the 17th century and access to the BL's and ESTC's catalogue information for the ballads, as well as consultation with Henry Snyder, Director of the North American ESTC); 2 hours to double-key transcribe a ballad and compare transcriptions; 30 minutes per ballad to review bibliographic information and produce the TEI/XML in X-Ballad; between 30 minutes and 1 hour to create a facsimile transcription of a ballad; 2-3 hours to research and record a ballad song; and a year, for Stahmer working half-time, to program X-Ballad 2.0, expand the data structure and write analytic algorithms, with another year, working at quarter-time, to implement enhancements to the web gateway.

The XML work will be handled by Stahmer in consultation with Laura Mandell, TEI expert. The image and text work will be lead by Kris McAbee (EBBA Assistant Director) and Jessica Murphy (EBBA Project Manager at UTD) directing a team of many graduate students and some undergrads who are specialists in early modern studies. To date, about 25 EMC graduate students have worked on EBBA. These students have the advantage of being familiar with the project as well as with early modern ballad culture generally. They are perfectly positioned to continue work on the project and to train new students. Graduate students are also especially well-suited to the kind of detail work involved in transcribing ballads and in creating facsimile transcriptions because such labor is tedious, requiring high levels of concentration, and cannot be maintained full-time. Working part-time during the academic year fits the needs of EBBA as well as of the graduate students' own schedules. In the case of singing and recording songs, undergraduates from the Music Department will be encouraged to participate in EBBA under the direction of Nichole Dechaine (EBBA Music Specialist), who will herself also record songs; we expect to use 3 grads and 4-6 undergrad singers each quarter (undergrads eagerly volunteer to learn ballad tunes and record them as part of their performance qualifications for a music degree). Revell Carr (EBBA Music Specialist, 2005-07), will continue to advise us from the University of North Carolina-Greensboro.

Note: we hope to hire as many work-study students as possible so as to maximize by 3 times the number of hours in fact worked (many of our early modern grads qualify and have applied through FAFSA).

Schedule of Work on the Bagford, Luttrell, Huth, and Osterley Park Ballads: In Advance of Grant

• on notification of NEH award a License is signed with the BL to digitize the four ballad collections (template license already in place)
• BL assesses which collections might need some conservation work in advance of photography; order of archiving determined accordingly
• BL commissioned to create high-resolution digital color photographs of the album pages of each

collection, in preparation for beginning work on July 1, 2010
• commissioning of high-resolution digital images from microfilm of the collections for manipulation by EBBA team to create ballad facsimiles and facsimile transcriptions

<div align="center">Summer 2010:</div>

• McAbee works 54% time leading a team of 8 graduate student RAs working 50% time, and Murphy works 44% time leading a team of 2 UTD RAs at 40% time. 4 grads will mount online the digital images of color album pages; the other 6 will work on cataloguing the ballads, in consultation with the BL's ESTC project manager, Moira Goff, and our own library catalogue and ESTC specialist, Henry Snyder.
• Dechaine works 56% time researching available tunes for the ballads and inputting in database for each ballad its tune, its standard tune title, and whether it is singable.
• Stahmer begins work at 50% time on expanding data structure and X-Ballad 2.0.

<div align="center">September 2010 - March 2011:</div>

• Citation information for new collections is completed.
• McAbee works 54% time leading a team of 1 graduate student GSR working 52% time and 4 graduate student RAs each working 150 hours who concentrate on transcribing ballads, checking ballad transcriptions and citations in X-Ballad, and mounting transcribed ballads as facsimile transcriptions.
• Dechaine works 56% time leading a team of 2 graduate student RAs each working 150 hours each as well as 6-9 undergraduate volunteers from the Music Department to record ballad tunes.
• Stahmer continues and completes development of X-Ballad 2.0.

<div align="center">April 2011 - June 2011</div>

• Transcribing ballads completed; X-Ballading, mounting of facsimile transcriptions, and recording of ballad tunes continues at the same relative pace.
• Fumerton teaches a graduate course in spring '11 on ballad culture and on the Bagford, Luttrell, Huth, and Osterley Park collections; essays generated will be mounted in EBBA.
• Stahmer develops algorithms for analytics interface and begins work on data visualization objects.

<div align="center">Summer 2011:</div>

• Team of 8 graduate student RAs from UCSB (3 from Music and 5 from English) work 50% time X-Ballading, mounting transcribed ballads as facsimile transcriptions, and recording ballad tunes. 2 UTD graduate student RAs each work 40% time aid in making facsimile transcriptions.
• Stahmer continues to work 25% time on data visualization objects and implementation.

<div align="center">September 2011 - June 2012:</div>

• Completion of all X-Ballading, facsimile transcriptions, and recordings of extant ballad tunes.
• Student assistant places a metadata watermark in each image.
• Stahmer continues to work 25% time to implement enhancements to I-Size.
• The BL is delivered facsimile album pages, basic citation information, and background essays to mount on its "Treasures in Full" website.
• Announcement on UCSB and international websites of newly expanded EBBA.

Subsequent to the NEH Grant

<div align="center">July 2012 - June 2014:</div>

Full archiving of remaining 17th century broadside ballads held by the BL (two important but anonymous collections, the Thomason Tract ballads, and scattered ballads in other bindings)

<div align="center">July 2014 - June 2016:</div>

Full archiving of 17th century broadside ballads in US held at Huntington, Williams College, and Harvard.

<div align="center">July 2016 - June 2018:</div>

Full archiving of relevant Bodleian ballads at Oxford as well as smaller collections in Manchester and Glasgow. By the end of the project, EBBA expects to have assembled on a single searchable website all printed ballads of the 17th century (as well as many ballads of the late 16th and even early 18th century included in important 17th century collections), estimated to constitute in total 9-10,000 ballads.

E. Staff (for full resumes, see **Appendix 14)**

Director of Project: Patricia Fumerton
Fumerton is Professor of Renaissance Literature, founder of the UCSB English Department's Early Modern Center, and much-published expert on 17th century broadside ballads. Fumerton will be responsible for final editorial control of EBBA. She will work 40% of her time on the project during the academic quarters and 100% during the summers of the two-year funding period.

Associate Director and XML and Imaging Specialist: Carl Stahmer
Stahmer holds a Ph.D. in English from UCSB in digital humanities and is Research Scientist at the Maryland Institute for Technology and the Humanities (MITH). He also serves on the Steering Committee for the Networked Infrastructure for Nineteenth-Century Electronic Scholarship (NINES). Stahmer will work 50% time on EBBA in the first year of the grant and 25% time in the second year.

Assistant Director: Kris McAbee
Formerly Project Manager of EBBA and working on the project since 2005, McAbee holds a Ph.D. in Early Modern Studies from UCSB where she also acquired wide technical training in the Transcriptions studio. She is furthermore a Lecturer in the UCSB English Department. She will assume general responsibility for the technical development of the project (in consultation with Stahmer) as well as manage the Music Specialist and student workers. She will work 54% time on EBBA during the grant.

University of Texas-Dallas Project Manager: Jessica Murphy
Murphy is newly assistant professor of English at the University of Texas-Dallas and will serve there as EBBA's UTD Project Manager. Murphy has been actively involved with EBBA since 2005, assisting with backend technology, cataloguing, MARC records, developing standards, transcribing broadside ballads and converting transcriptions into XML. She will teach a course at UTD spring 2010 on EBBA and will devote 44% of her time each summer of the grant supervising a team of 2 UTD graduate students.

Music Specialist: Nichole Dechaine
Nichole Dechaine is Lecturer in the UCSB Music Department teaching 17th century English ballad tunes and also Adjunct Instructor of Voice at Westmont College. Dechaine holds a DMA from UCSB and has been researching and recoding EBBA tunes since 2006. She will work 56% time during the grant period.

Music Consultant: Revell Carr, past Music Specialist for EBBA and currently Assistant Professor of Ethnomusicology, University of North Carolina-Greensboro. TEI Consultant: Laura Mandell, Associate Professor of English and Director, Digital Humanities Program, at Miami University, Ohio and also Associate Director, NINES project. Library Catalogue Consultant: Henry Snyder, Director of the Center for Bibliographical Studies and Research at UC-Riverside; and Director of the North American ESTC.

F. Dissemination

The goal of an expanded EBBA is to provide easy and democratic access to the images, texts, songs, citation information, and subject matter of broadside ballads leading up to and immediately following the printed ballad heyday of the 17th century. Since the BL has granted EBBA permission to create a database of all its ballad holdings, no password or other restrictions need impede access to the site.

In acknowledgment of our achievements, EBBA was awarded the international "BSECS Digital Eighteenth Century Prize (2009)." Graduate students and faculty actively promote EBBA at conferences. In 2008-09 alone, 13 project members gave 33 talks based on EBBA, and many publications have ensued, including our in press editions of critical essays and of the Pepys ballads (see **Appendix 15**). We promote EBBA from major Early Modern and UCSB websites, including the UCSB library list of databases. Already a Google search of "Pepys ballads" brings up EBBA first; a general search of "broadside ballads" brings up EBBA fifth; we expect such recognition will grow as the database expands. Finally, we will announce the NEH grant and EBBA's expansion, when completed, via media outlets across the world.