



Internal use 576590

Application for a Grant

Identification						
This page will be made available to selection committee members and external assessors.						
Funding opportunity Insight Grants						
Joint or special initiative						
Application title A war over water: the 1531 English Statute of Sewers and its impact upon local politics, economies and environments						
Applicant family name Langdon			Applicant given name John		Initials L	
Org. code 1480111	Full name of applicant's organization and department University of Alberta History and Classics					
Org. code 1480111	Full name of administrative organization and department University of Alberta History and Classics					
Scholar type	Regular <input checked="" type="radio"/>	New <input type="radio"/>	Research Group			
If New, specify category	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	435-1	
Does your proposal require a multidisciplinary evaluation?					Yes <input type="radio"/>	No <input checked="" type="radio"/>
Is this a research-creation project?					Yes <input type="radio"/>	No <input checked="" type="radio"/>
Does your proposal involve human beings as research subjects? If "Yes", consult the <i>Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans</i> and submit your proposal to your organization's Research Ethics Board.					Yes <input type="radio"/>	No <input checked="" type="radio"/>
Does your proposal involve activity that requires a permit, licence, or approval under any federal statute; or physical interaction with the environment? If 'Yes', complete Appendices A and B.					Yes <input type="radio"/>	No <input checked="" type="radio"/>
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total funds requested from SSHRC	<u>17,267</u>	<u>16,843</u>	<u>18,219</u>	<u>0</u>	<u>0</u>	<u>52,329</u>



Family name, Given name

Langdon, John

Participants

List names of your team members (co-applicants and collaborators) who will take part in the intellectual direction of the research. Do not include assistants, students or consultants.

Role

Co-applicant

Collaborator

Family name

Given name

Initials

Org. code

Full organization name

Department/Division name

Role

Co-applicant

Collaborator

Family name

Given name

Initials

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Full organization name

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Department/Division name

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Collaborator

Family name

Given name

Initials

Org. code

Full organization name

Department/Division name



Research Activity

The information provided in this section refers to your research proposal.

Keywords

List keywords that best describe your proposed research or research activity. Separate keywords with a semicolon.

England; history; rivers; weirs; mills; fishing; navigation; trade; environment; economy; politics

Priority Areas - Priority area(s) most relevant to your proposal.

Disciplines - Indicate and rank up to 3 disciplines that best correspond to your activity.

Rank	Code	Discipline	If "Other", specify
1	51000	History	
2	61400	Urban and Regional Studies, Environmental Studies	
3	62200	Law	

Areas of Research

Indicate and rank up to 3 areas of research related to your proposal.

Rank	Code	Area
1	131	Economic and Regional Development
2	370	Transportation
3	260	Law and justice

Temporal Periods

If applicable, indicate up to 2 historical periods covered by your proposal.

From	To
<p>Year</p> <p>1525 BC AD</p> <p>_____ ○ ●</p> <p>_____ ○ ○</p>	<p>Year</p> <p>1560 BC AD</p> <p>_____ ○ ●</p> <p>_____ ○ ○</p>



Family name, Given name

Langdon, John

Research Activity (cont'd)

Geographical Regions

If applicable, indicate and rank up to 3 geographical regions covered by or related to your proposal. Duplicate entries are not permitted.

Rank	Code	Region
1	3200	Western Europe
2		
3		

Countries

If applicable, indicate and rank up to 5 countries covered by or related to your proposal. Duplicate entries are not permitted.

Rank	Code	Country	Prov./ State
1	3204	ENGLAND	
2			
3			
4			
5			



Family name, Given name

Langdon, John

Response to Previous Critiques - maximum one page

Applicants may, if they wish, address criticisms and suggestions offered by adjudication committees and external assessors who have reviewed previous applications.

Empty response area for addressing criticisms and suggestions.



Family name, Given name

Langdon, John

Summary of Proposal

The summary of your research proposal should indicate clearly the problem or issue to be addressed, the potential contribution of the research both in terms of the advancement of knowledge and of the wider social benefit, etc.

2. Summary of Proposed Research

When I was writing my SSHRC-supported book, *Mills in the Medieval Economy: England 1300-1540* (Oxford University Press, 2004), I noted a curious incidence involving the tearing down of two large watermill complexes on the River Itchen between Southampton and Winchester in 1535-6, apparently carried out by a Commission of Sewers following the Statute of Sewers of 1531. Upon further investigation, it seems that such tearing up of mills, as well as weirs and permanent arrays of fishing nets, occurred frequently across southern England during 1535-6. As I indicated in my book (p. 31), the implication is that the Crown was responding to complaints by merchants and water transporters concerning blockages to inland river navigation.

However, such statutes and other pronouncements were common throughout the later medieval and early modern period, but they generally accomplished little, as landholders were seemingly able to protect assets like mills, weirs and fishing apparatus. Why this particular statute and resulting commission(s) had real teeth is still something of a mystery. It may well have been tied to the series of Henry VIII's reforms, ecclesiastical and otherwise, that were occurring at the time, but the political, economic and other linkages are unclear.

This project plans to examine this episode and to attempt to answer some key questions: What was the scale of the destruction of these mills, weirs, etc. (sporadic or comprehensive)? How was this program of destruction implemented and who specifically carried it out? Who were the specific winners and losers (e.g., were certain people targeted to the benefit of a select few)? Did it effect a permanent change on riverine systems, or were the impacts reversible as landowners were allowed to rebuild mills and weirs? Does the examination of the Statute and its impact help our understanding of the Henrician reforms as a whole?

The methodology involves examining an array of government and manorial documents available in print and manuscript. Surveying the documents in print will provide excellent training for graduate students, while paleographic training in reading early sixteenth-century documents will also be provided. A great deal of the relevant manuscript material is not available in printed or digital form and will have to be examined (and, where allowed, photographed) at archives in the United Kingdom. Based upon the past research experience and output of the applicant, this project should have a high probability in providing important and broad-ranging results that will inform academics and interested people generally not only about this particular incident but about early sixteenth-century English society, economy and politics as a whole.

2. Detailed Description - Program of Research

Objectives

The main objective of this project is to examine an early example of notable government intrusion upon an economy and environment of the time. The English Statute of Sewers of 1531 began a series of political and administrative actions intended to improve, among other things, navigation on various rivers around the country. This involved the destruction of much private property, notably the tearing down of watermills, weirs, fishing nets, etc., which were perceived to be harmful obstructions on such rivers. Examining the incident in detail should help us not only to be more precise about the scale of destruction and its implications for the wider economic and environmental framework of the times but also much about the turbulent period of Henry VIII's reign generally.

Context

The Statute of Sewers of 1531 makes little sense without prior knowledge of the long-running tensions concerning the use of river waters by various stakeholders in England, ranging from local landowners using river waters for the age-old purposes of creating rich meadowlands for the production of hay, through to the use of these same waters by merchants and boatowners carrying goods on river waters between the country's interior and the coast, to - finally - the exploitation of river currents for the operation of watermills, primarily for grinding grain and malt. The relatively recent installation of watermill dams and weirs on major rivers, from the twelfth century onwards, with the development of more effective damming technology (Langdon, 2000, 77), was a particular catalyst for tensions among river water users. The construction of these dams and weirs, which stretched from one bank to the other, obviously presented formidable obstacles to boats wishing to go up- or downstream, even with mechanisms built into the dams to allow boats to pass through them, such as flash-locks and later pound-locks. The former involved the simple removal of planks at the top of a dam over which a 'flash' of water could pour; boats going downstream would have an exciting water-park-like ride descending on the flash, while those going upstream would have to be winched up against the flow of the flash. Pound-locks of the kind with which we are familiar today, placed at one end of the dam, would allow a more stately lifting up or down of the boat, but, in England at least, these were mostly a feature of the post-medieval period (Bond 2007, 153-4). Even with such compromises, however, boat transporters and merchants remained mightily displeased at the inconvenience of dams and weirs, especially if, as evident in later times, the transporters had to wait upon the pleasure of the mill-owner to make the passage though the dam (Paget-Tomlinson 2000, 24, 47-9).

As a result, a constant litany of complaints and indictments against mills, weirs, arrays of fishing nets, or other obstructions on waterways by boat owners or users were common on various river systems throughout the later Middle Ages (e.g., *Public Works in Mediaeval Law*, i, 154-67, 294-5; ii, 12-22, 124-9, 247-70, 276-306, 360-1). The Crown was in a difficult position in dealing with these tensions. Its natural sympathies were with the 'river communication' crowd - merchants, water transporters and the like - since communications along rivers had long been a part of its military considerations, going back to at least the time of Alfred the Great (late ninth century: Abels 1998, 195). But the state also required the support of its chief source of military personnel, the feudal landowners whose stake in rivers was much more local and self-interested. Mills, mostly powered by water but supplemented with windmills and horse-mills in

Langdon, John (Detailed Description) - 2

areas where water flows were problematic, provided a significant proportion of lords' total revenues, normally between 5 and 10 per cent but rising to nearly a quarter in some parts of the country, especially the north (Langdon 1994, 13; Langdon 2004, 280-2). Perhaps critical to lords being able to defend their mills against those who might wish for their destruction was that they were - by and large - supported by their tenants, who saw their lord's mill as a vitally important labour-saving device for their families, especially for grinding grain and malt, even if they had to pay a healthy charge for using it (Langdon 1994, esp. 40-1). As a result, concerning the use of river waters, there was a basic arranging of two opposing forces - lords and their tenants wishing to block up rivers mostly for local interests of grinding grain or fishing versus the more national interests of merchants and river navigators. The latter were generally backed by a sympathetic Crown, both because it could tax trade but also - likely - because its vision was more in tune with wider national issues.

For most of the Middle Ages, an interesting stalemate resulted. Legislation attempting to clear rivers for navigation began to appear sporadically, the first comprehensive one being a well-known passage in Magna Carta (in 1215) where it was stated that: 'All Weirs from henceforth shall be utterly put down by Thames and Medway, and through all England, but only ['except' probably meant] by the Sea-coasts.' (original Latin transcription and translation usefully provided in Caffyn 2010, 449; see also Getzler 2004, 21). This was apparently modelled on more limited charters dealing with the Thames and Medway in the reigns of Richard I and John (Caffyn 2010, 450). Similar statutory pronouncements or confirmations were issued in 1302, 1351, 1397, 1399, 1402, 1413, 1472 and 1503 (Caffyn 2010, 450-6). In terms of improving water navigation, this legislation seems to have been remarkably ineffective, at least to the start of the sixteenth century. Inland water transport, if anything, declined markedly over the course of the later Middle Ages (Jones 2000; Blair 2007, 11-13). No recorded case of the demolishing of a weir, dam or mill in the interests of better navigation has yet come to light for the later Middle Ages, as, for example, in a tracking of mills on 333 manors from 1300-1540, where no example of a mill or weir being torn down on the order of a commission of sewers was evident before 1535 (Langdon 2004, 26-31).

The Statute of Sewers of 1531 (*Statutes of the Realm*, iii, 368-72) changed all this. Apparently a response to severe flooding from 1526 to 1530 (Darlington 1960, 196; Galloway 2010, esp. 19-20), it gave sweeping powers to commissioners of sewers to do what was required to stop flooding, especially in coastal areas, and to improve navigation in rivers (for the history of commissions of sewers before 1531, see, for example, Richardson 1919; Owen and Owen 1981; Owen 1996). In regard to the latter, the commissioners were charged to tear down all mills, weirs, etc. that were hurtful to 'the common passages for Shippes balengers and botes in the rivers streames and other fluddes' (*Statutes of the Realm*, iii, 369). The Statute further gave the commissioners unprecedented powers of discretion in dealing with the situation, including a certain amount of immunity from legal suits (a commissioner of sewers facing a suit for his actions was given treble damages if the plaintiff did not make his/her case: *ibid*, iii, 371).

It took a few years for the legislation to manifest itself in action, but eventually a commission of sewers was established in 1535 with instructions to pull down all weirs obstructing river navigation, flooding meadowland, or hindering the renewal of fish populations, even if 'the same weirs have stood since 500 years before the Conquest' (*Lisle Letters*, ii, 628). The activity in removing weirs and mills seems to have been frenetic at first. The Reverend Douglas Caffyn, working from printed sources, has uncovered references to a score or more uprooted weirs and mills across the country during the period 1535-8 (Caffyn 2010, 457). Independently, in my study of mills and drawing here from manuscript

Langdon, John (Detailed Description) - 3

sources, two large milling complexes at Bitterne and Twyford on the River Itchen between Southampton and Winchester, both powering two sets of millstones apiece, were - to my initial surprise when I ran across it in my mills study - torn down by (presumably) the same commission of sewers in 1535-6 (Langdon 2004, 31). It is likely that many more mills and weirs were destroyed: indeed a memorandum note characterized the mood embodied in the Statute of 1531 as 'An Act that never weir nor water-mill shall hereafter be erected or made within this realm' (*Letters and Papers...of Henry VIII*, x, 92).

The episode ties into a number of contentious debates and theoretical stances. In particular, it extends the debate that has been occurring in recent years over the extent and effectiveness of the inland water transport system during the medieval period (Edwards and Hindle 1991, 1993; Langdon 1993, 2000, 2007; Jones 2000; Blair 2007, esp. 11-13). Key issues of capital investment are involved here. What the 1535-40 episode in fact potentially represents is a marked *disinvestment* in river systems as a whole. In order for the river-channel clearance program envisioned by the Commission of Sewers to be effective, the destruction of the capital involved in the mills and weirs needed to be replaced by investment in keeping waterways open for more fruitful enterprises, but was it? In other words, was the clearance of rivers 'creative destruction' in the Schumpeterian sense of leading to more effective productive formulations (esp. Schumpeter 1961), or were they simply acts of devastation that had little benefit for making river systems truly navigable? The coincident timing of the Statute and its effects with the famous process of 'dissolving' the monasteries is also striking, but the current literature seems to make little connection between the two (as typified by the silence on the Statute of Sewers in the more authoritative texts on the reign, its personalities and its government: e.g. Scarisbrick 1968; Loades, 2011; Elton 1973; Coby 2009; Loades 1997, esp. ch. 1). Perhaps this was because the former was an attack on a limited range of ecclesiastical institutions while the latter - in the current state of research - seems to have targeted indiscriminately both lay and ecclesiastic landowners, including many mills and weirs that were in the hands of the Crown (*Lisle Letters*, ii, 627; *Letters and Papers...of Henry VIII*, x, 170). The Statute of Sewers itself certainly had important legal ramifications, as it is alleged to have given birth to the famous 'Henry VIII clauses', which gave governments the right to amend primary legislation enacted in Parliament, in this case giving commissions of sewers much more power to make up the rules as they went along ('...to make and ordeyne statutes ordenaunces and provysions from tyme to tyme as the case shall require...' (*Statutes of the Realm*, iii, 369)).

Methodology

The methodology investigating these various environmental, economic, political and legal issues involves examining an extensive array of government and manorial documents available in print and manuscript. Most of the latter are in archives like the The National Archives at Kew, London, which can be photographed and stored on a laptop computer to provide an instantly available archive while examining and analyzing the documents and to make them available for public viewing, both nationally and internationally, through a website to accompany the research.

There are three main objectives in order to gain a better understanding of the campaign against obstructions in rivers and its subsequent impact. These are: a) to ascertain a better sense of the extent of the despoliation of mills, weirs, etc., over geography and time; b) to ascertain whether river navigation actually improved because of this particular state action and subsequently how riverine environments were impacted; c) to investigate persons implicated in the overall incident, both as victims and perpetrators, in

Langdon, John (Detailed Description) - 4

order to uncover some of the political and legal ramifications involved.

a) The extent of the clearance of mills, weirs, etc.

Preliminary investigations at The National Archives and through various catalogues accessed on the internet suggests that the information on the destruction of mills, weirs and other structures in rivers during the period 1535 to 1540 and perhaps afterwards might be reasonably sizable but also very scattered. Some has already been found through the work of others, principally Reverend Douglas Caffyn who, in his larger work on river transport from 1189 to 1600, very usefully sifted out references from some printed sources to mills and weirs being torn down in 1535-40 (Caffyn 2010, 457, drawing from *Letters and Papers...of Henry VIII* and *The Lisle Papers*; I have met with Reverend Caffyn in England and indeed suggested a collaboration with him on this project, but he has gone onto other work on Orthodox Christian theology). Although the *Letters of Papers...of Henry VIII* (a composite printed collection containing information from patent rolls, close rolls, etc.) have already been examined by Caffyn in particular, revisiting these records and going to the originals when a particularly interesting case appears might be in order. This is work that could fruitfully be given to student research assistants, at least in part.

But the biggest source of new evidence is likely to be found in the masses of yet unprinted manuscript material, as the discovery of the Bitterne and Twyford mills above indicates. In particular, there are large classes of unprinted records that can be brought into play here. One potentially fruitful source are inquisitions *post mortem* for the reign (C142 class at The National Archives in Kew, London). Although the inquisitions of the early sixteenth century are not as detailed as those of a few centuries earlier (e.g., Campbell and Bartley 2006, esp. ch. 3), they do still record some of the assets of lay lords, and it may well be that these will indicate mills and other similar river-related assets that were now worth nothing because of destruction by a commission of sewers, much as, say, earlier inquisitions *post mortem* recorded the despoiling of mills in the north of England by raiding Scots in the early fourteenth century (Langdon 2004, 27n; see also more generally on this raiding, McNamee 1997, ch. 3). Similarly, according to The National Archives website, the E371 class (Lord Treasurer's Remembrancer, Originalia Rolls) began to record details of the various commissions of sewers; thus, a close examination of these rolls for, say, the period 1530-40 might be very useful (and doable within the scope of the project). It is expected that other promising sources of evidence will also emerge as the project goes forward, perhaps from various court records as provided through The Anglo-American Legal Tradition project headed by Professor Robert Palmer out of the University of Houston (see below).

In terms of determining scale of destruction, its time frame is also important. So far, the evidence suggests that it was limited to only a few years after 1535, but it might have gone on longer than that. At least two successive commissions with a life of three years each (as specified in the original statute: *Statutes of the Realm*, iii, 371) were appointed, so that clearance of obstructions in the rivers might have continued to at least 1541 (at least one mill is recorded as being pulled down on the river Lugg in Herefordshire in 1539: *Letters and Papers...of Henry VIII*, xiv, pt. 2, 20). In any case, once the extensiveness of the destruction of mills and weirs over time and geography is determined, as far as the documentation examined allows, a more systematic analysis should be possible. Certainly mapping of the destroyed mills, weirs, etc., would be useful, as well as classifying them according to the type and status of the landlord who was involved (that is, lay versus ecclesiastic; lesser versus greater landlord). It is difficult to say at this stage what more advanced methods, quantitative or otherwise, might be possible,

but I will employ whatever are suitable for the evidence, drawing upon the experience of my previous research and publications.

b) Were rivers actually improved?

The second and arguably more critical part of the project is to see if the despoiling of mills and weirs was actually followed by attempts to improve the cleared channel for navigation. This can be done by continuing to seek evidence from commissions of sewers for the period after 1535-40, since they not only recorded the tearing down of obstructions, as in the case of the years immediately after 1535, but also such things as the maintenance of banks, dykes, drainage channels, which might indicate the improvement of a river channel after a mill or weir was removed. Recent work, for instance, has shown how frustrated the government of Henry VIII was about the flooding of the lower Thames in the late 1520s and early 1530s. Indeed it was Thomas Cromwell, later to be Henry VIII's great minister, who wrote in 1529 to Cardinal Wolsey about the flooding of Lesnes on the southern Thames bank east of London as 'one of the most piteous and greuous sightes that ever I saw' (Galloway 2010, 16).

Was it cases like this that encouraged Cromwell to initiate - or at least accede to - a further program of clearing mills, weirs and other obstructions from rivers, and to what effect? This is more difficult to ascertain in overall geographic terms, but well-chosen case studies of particular rivers will be a significant help here, an obvious one being the Itchen River between Southampton and Winchester. The navigability of this stretch of river had long been a source of tension between merchants in Winchester and mill owners on the Itchen south of the town (e.g., Bond 2007, 199-201). Here the impressive series of accounts of the bishop of Winchester (held at the Hampshire Record Office in Winchester) will help elucidate certain questions. Was the tearing down of the bishop's mills at Bitterne and Twyford in 1535-6 followed by a deliberate program of river improvement for navigation? Or were these mills later rebuilt, in effect undoing what the commissioners of sewers were trying to do? Currently the literature on the Itchen channel does not seem to know about the destruction of the mills and indeed implies that the mills had a history in more modern times (e.g., Currie 2007, 246-7; Bond 2007, 179-80, 198-9). The rebuilding of these mills - or not - can at least be verified up to the early eighteenth century, when the series of accounts ends. Also, there seems to have been a possibility of canalization around these mills, in effect a compromise between the needs of navigation and the bishop's interests plus those in the local community who wanted a nearby facility for grinding grain, although whether this canalization occurred before or after the events of 1535-40 is unclear (Bond 2007, 179-80; Currie 2007, 250-1). Again, the accounts will help to clarify this.

For another part of the country, the seemingly excellent survival of the records for commissions of sewers in Norfolk, held at the Norfolk Record Office in Norwich, will also provide an avenue of investigation (Owen and Owen 1981). Certainly many contemporaries felt that the impact of the Statute might turn out to be temporary. A little more than two years after its destruction in late 1535, suggestions were being made to Lord and Lady Lisle that they might be able to 'remake' their weir at Umberleigh on the River Taw in Devon (*Lisle Letters*, v, 22). Whether this in fact happened might be revealed through a closer reading of the Lisle Letters, as well as Crown documents such as the E371 class at the National archives mentioned above. In short, although assessment of the environmental impact of the Statute will depend upon more patchy evidence, there should be enough to come to some conclusions about it.

c) The personalities involved

Some of the printed materials list both the names of the landowners whose mills and weirs were despoiled and also members of the commission that caused it. One letter of 1535 sent to Lord and Lady Lisle concerning the destruction of their weir at Umberleigh In Devon pointedly named the persons primarily responsible for carrying out the commission's orders, perhaps as targets for future legal redress, while later letters to them suggested the possibility of suing the relevant commission (*Letters and Papers...of Henry VIII*, ix, 325, 355). Here the various court records from Robert Palmer's project might be a great help, particularly as his team have gone to the trouble of indexing plaintiffs and defendants for the various cases contained in their photographed records. As a result, if, say, a landlord is known to have lost a mill or weir, cases naming that person, presumably as a plaintiff, can be traced to see if any involved the incident. Similarly, those known to have been involved in the destruction of a mill or weir can also be traced, presumably as defendants. Since this would involve much trawling through the Palmer website (Anglo-American Legal Tradition), this would be an ideal task for a student assistant, who could also, as part of their training, be given familiarization with the documents themselves (see section 4 below). At the very least, greater knowledge about the people involved should further enrich our knowledge about how river clearance fed into larger political and legal issues involved in the reign.

Originality and Significance of Project

State-sponsored adjustments to environments at local, regional and national levels did have some history in the Middle Ages, arguably going back to the late eighth century with Charlemagne's famous attempt to connect the Danube and Rhine river systems (e.g., Squatriti 2002), but their impact upon local environments in particular was unlikely to have been anywhere near that encompassed by the 1531 Statute and its consequences. Yet this incidence of river clearance has not been studied in any depth, especially in regard to its long-term environmental impact. This project will address this shortcoming in the literature and will add new dimensions to it, particularly in regard to the political circumstances in which it took place and in relation to government policy towards the environment (i.e., was it a focused effort of river improvement at a national level, or simply one of the Crown momentarily flexing its muscles against certain landowner interests in river environments, especially those of mill-owners, with little in the way of sustained followup to ensure long-term benefits to navigation and other interests?). When completed, the project should stand as a very valuable case study of early state action upon environments and economies of the time, with which to compare similar episodes of inland waterway improvement before and after this event (e.g., that of canal building: Bond 2007, esp. 170-202). This project as such is very much curiosity-driven. It stems from an event - the tearing down of the bishop of Winchester's mills at Bitterne and Twyford in 1535-6 - that mysteriously appeared in my previous study on medieval mills. As I have prepared this application, that curiosity has grown, since it is clear that this relatively local event tied into a much wider phenomenon of river clearance that was bound to have a significant impact upon the political, environmental and economic landscape of the time. Just how seriously we should take it is, I think, a worthy subject of investigation with broader implications for environmental and economic history as a whole.

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Knowledge Mobilization Plan

In terms of increasing accessibility and exchange of knowledge among academic and non-academic audiences, this project on the 1531 Statute of Sewers and its consequences will be of interest not only to researchers working in the area of the late medieval and early modern English economy and environment but also for those concerned more generally in environmental episodes of the past and their legal and policy relevance for similar issues at work in the world today. I plan to engage these audiences not only through the traditional route of conference papers and published articles, chapters and books, but also through early production of results and research materials on a website.

In terms of addressing academic historians specifically, both here in Canada and internationally, it is expected that results from the project will begin to flow within a couple of years of starting the project in 2013. In this regard, a target for preliminary presentation of results will be as a conference paper given by myself and any students involved in the project (I have budgeted for one) at the 50th International Congress of Medieval Studies at the University of Western Michigan at Kalamazoo, Michigan, in May, 2015. In addition to attendance at this great gathering of medievalists being a very formative experience for the student(s), it will provide a useful springboard for more formally published work. Certainly since this project is an extension of other work I have done, particularly on mills and river navigation (e.g., Langdon 1993; 2000; 2004; 2007), it should be given a respectful hearing. Indeed, publication of the paper's results concerning the 1531 Statute of Sewers and its aftermath, which I will co-author with the student(s) involved, should follow reasonably quickly in a good journal. More broadly, work from the project will also tie usefully into other projects. For instance, I am currently writing a book on medieval transport with David Harrison (well-known for his work on medieval bridges, esp. 1992, 2004), for which the results of this project will have considerable relevance; David and I hope to complete the manuscript by 2014.

Addressing a broader academic and professional community, since the project has strong legal implications concerning precedents for balancing the use of rivers between transporters, leisure craft users (canoists, kayakers) and others versus the rights of riparian landowners (on this, see esp. Caffyn 2004), it should have interest for the legal community and for policy-makers in monitoring and regulating river waters, even for Canadians, since our legal system has English roots. For example: did the Statute strengthen significantly a utilitarian philosophy favouring common use of river waters against the rights of riparian landowners that had a lasting impact in reshaping these environments, or were such environmental changes, if any, so transitory that conditions returned very quickly to more or less those existing previously, essentially signalling a return to the preeminence of private over public interests in riverine environments? A publication outlining some of these legal and ecological implications would seem to be a natural outcome.

Finally, for such interested parties and the general public as a whole, I am planning to establish a personal website, which will include a page for this project containing research materials generated by it plus other materials and publications gathered or created during my career that relate to it. This will be of particular use for students wishing to familiarize themselves with examples of documents deriving from the period. It should also generate wider interest in the event, especially for those interested in the events and policy machinations of the reign of Henry VIII.



Family name, Given name

Langdon, John

Expected Outcomes

Elaborate on the potential benefits and/or outcomes of your proposed research and/or related activities.

Scholarly Benefits

Indicate and rank up to 3 scholarly benefits relevant to your proposal.

Rank	Benefit	If "Other", specify
1	Knowledge creation/intellectual outcomes	
2	Enhanced theory	
3	Student training/skill development	

Social Benefits

Indicate and rank up to 3 social benefits relevant to your proposal.

Rank	Benefit	If "Other", specify
1	Cultural outcomes	
2	Enriched public discourse	
3	Training and skill development	

Audiences

Indicate and rank up to 5 potential target audiences relevant to your proposal.

Rank	Audience	If "Other", specify
1	Academic sector/peers, including scholarly associations	
2	International audiences	
3	Para-public institutions (museums, libraries, etc.)	
4	General public	
5	Students	



Family name, Given name

Langdon, John

Expected Outcomes Summary

Describe the potential benefits/outcomes (e.g., evolution, effects, potential learning, implications) that could emerge from the proposed research and/or other partnership activities.

This project will add to our knowledge about state decisions in the past which had marked impact upon local environments, which will be of interest to historians generally, not just those studying the British Isles. As these events happened nearly five hundred years or more ago, more direct practical relevance may be hard to see, but there are some that apply even today. The legal profession, for example, does draw on historical precedent, and in this case, the rights of navigators, pleasure-boaters, canoeists and kayakers on rivers versus those of riparian landowners still provide a lively source of legal action in the UK that can draw on events centuries if not millennia in the past (see Caffyn 2004 in the Bibliography) and, by virtue of a legal tradition here that still goes back to its UK roots, it might thus find application in Canadian law. Having a more accurate sense of what went on in the past, in this case for riverine environments, can be critical here.

Also, history is something of a cultural exercise. Knowing more about our past enriches our sense of ourselves and not only of our British roots. For anyone interested in history, the Statue of 1531 involved complicated political interactions and here might have had a strong element of unintended consequences. Although happening long ago, its lessons for policy decisions and the atmosphere in which they are taken may still prove instructive. At the very least, it provides a very interesting, and maybe even amusing, cautionary tale that can inform both experts and the interested public alike. It certainly tells us that precipitous political and social actions against environments have a long tradition. Through publication of the results in various venues and posting on the planned website, the project's findings should reach a wide audience of academics and the general public both nationally and internationally.

5. Research Team, Previous Output and Student Training

A. Description of the research team

I am the principal and sole investigator on this project. I do not plan to be involved in other research projects during the period of this particular project, but I will be producing publications from previous research work, including a co-authored book on medieval English transport. I plan to spend 50 per cent of my time on this project while the other 50 per cent will involve the aforesaid writing. As I am retired from teaching - but still very active in research and writing! - this will still mean a considerable amount of time spent on the project, an estimated average of twenty hours per week overall.

B. Description of previous and ongoing research results

I and my previous graduate student (Jordan Claridge), supported from my previous SSHRC grant ('Kids and Crows: Young Labour on Medieval English Demesnes': file no. 410-2009-0159) have completed a substantial article called 'Command and Obey: Systematizing Hierarchies of Labour in Medieval English Agriculture, c. 1300', which uses a data-set of over 4,000 agricultural workers from a sample of over 400 manors across England as a whole at the beginning of the fourteenth century in order to assess the nature of that labour, including the contribution made by women, the young and the elderly. It is a big piece of work that we are aiming for a prestigious journal such as the *American Historical Review*. (Jordan and I also recently co-wrote a major piece on medieval storage, which appeared recently in the very well-considered journal, *Economic History Review*.) As mentioned above, I am also co-authoring a book on medieval transport with David Harrison, an expert on medieval bridges, who currently works for the civil service in the United Kingdom. We have already written several chapters for this book, and it is this plus the previous work for my book, *Mills in the Medieval Economy: England 1300-1540* (Oxford: Oxford University Press, 2004) that leads very naturally into this project, where environmental issues raised by both the transport and mills projects are brought very much to the fore when examining the 1531 Statute of Sewers and its results. Much of my recent writing on labour and employment, particularly in recent festschrifts for Professors Christopher Dyer and Richard Britnell and stemming from previous SSHRC-funded projects, ties into the economic effects which such manipulations of the environment that the Statute represented had on issues such as family income (the latter explored by James Masschaele and myself in our 2006 *Past and Present* article, 'Commercial Activity and Population Change in Medieval England'). These will all feed together in discussing the economic development in the transition from later medieval to early modern England, the Statute of 1531 perhaps representing a major break in environmental policy, particularly in how society at the time used its water resources.

C. Description of proposed student training strategies

I will be employing a student at the PhD level to help with data collection, processing and presentation of results. In consultation with the current graduate chair in the Department of History

Langdon, John (Research Team, etc.) - 2

and Classics, I will be choosing someone for whom work on English materials and archival sources would be a definite benefit. Ideally this will be someone with experience in early English or European history, but someone specializing in Canadian or American history would also suit. S/he will be given a fellowship of six hours per week during two school terms for each of the three years of the project. His/her work will, in the first instance, involve going through the substantial printed materials we have at the University of Alberta plus any that can be accessed through internet or interlibrary loan. S/he will also help me work through original manuscripts, specially those in English, that I will photograph in England. For this, I will train him/her in the palaeography of the documents of the period; this has always worked well in previous projects, as for example with Jordan Claridge, who worked with me on the 'Kids and Crows' project as an MA and was given extensive training in reading and interpreting medieval documents, as well being introduced a large number of archives (over thirty) in England. He was able to parley that experience into scholarship-supported enrollment within the PhD program at the University of East Anglia in Norfolk, England.

The student will also be expected to play a prominent role in the preparation and presentation of results. A main feature here will be the co-presentation of a paper at the 50th International Congress on Medieval Studies at Kalamazoo, Michigan, in May, 2015. (Although the period of our project falls into what is normally considered the 'early modern' period, medievalists are increasingly claiming it as the 'close of the middle ages' (e.g., see Galloway 2010 in the Bibliography), a paper on the period should be acceptable to the conference organizers, especially as our talk should resonate with what I presume might be a major theme of the conference - the 800th anniversary of Magna Carta.) This should give the student valuable speaking experience. Also, since I have been in the practice of doing this for several years, the student will very likely appear as co-author on any early publications from the project.



Family name, Given name

Langdon, John

Funds Requested from SSHRC

For each budget year, estimate as accurately as possible the research costs that you are asking SSHRC to fund through a grant. For each Personnel costs category, enter the number of individuals to be hired and specify the total amount required. For each of the other categories, enter the total amount required.

Personnel costs	Year 1		Year 2		Year 3		Year 4		Year 5	
	No.	Amount								
Student salaries and benefits/Stipends										
Undergraduate										
Masters										
Doctorate	1	8,166	1	8,411	1	8,663	0	0	0	0
Non-student salaries and benefits/Stipends										
Postdoctoral										
Other										
Travel and subsistence costs										
	Year 1		Year 2		Year 3		Year 4		Year 5	
Applicant/Team member(s)										
Canadian travel										
Foreign travel		8,236		8,407		6,383		0		0
Students										
Canadian travel										
Foreign travel		0		0		1,148		0		0
Other expenses										
Professional/Technical services		0		0		2,000		0		0
Supplies		65		25		25		0		0
Non-disposable equipment										
Computer hardware		800		0		0		0		0
Other										
Other expenses (specify)										
Total		17,267		16,843		18,219		0		0

5. Budget Justification - Funds Requested from SSHRC

STUDENT SALARIES AND BENEFITS/ STIPENDS (for research and communication): I plan to employ one of the PhD students in our History and Classics graduate program as a research assistant, to go through printed records and manuscripts sources and to help with the presentation of results. (A PhD student is better here than an MA in order to give continuity over the course of the project.) The student will be required to work six hours per week during two four-month terms in the year. According to the '2012-13 Award and Minimum Salary Rates for Tap B Trust-funded Appointments' table provided by the University of Alberta, the amount per four-month term is \$4,083.20 (with benefits). For two terms this will be \$8,166.40, rounding off to \$8,166 for the first year (2013-14). Allowing for 3 per cent inflation for each of the subsequent years will give \$8,411 for year two and \$8,663 for year three.

TOTAL STUDENT SALARIES, ETC.: \$8,166 for year 1; \$8,411 for year 2; \$8,663 for year 3.

TRAVEL AND SUBSISTENCE COSTS: APPLICANT

a) Trips to England (for research): 42 days (six weeks) each in years 1 and 2 collecting data and photographing manuscripts in archives; and 21 days (3 weeks) in year 3 for clean-up.

Air flights (for research): The cheapest economy return flight from Edmonton to London Heathrow is now about \$1,600 (taxes included, as given by expedia.com), which I have assumed for year 1. Adding 3 per cent inflation for the subsequent years gives \$1,648 for year 2 and \$1,697 for year 3.

Air Flights to England: \$1,600 for year 1; \$1,648 for year 2; \$1,697 for year 3.

Accommodation (for research): £50 per night (very reasonable for London in particular) for year 1; £51.50 for year 2 (assuming 3 per cent inflation); £53.05 for year 3 (again allowing for 3 per cent inflation). A conversion rate of \$1.60 Cdn/£ is assumed throughout this application, based upon conversion rates near that figure for most of 2012. Assuming this, the cost in \$Cdn for year 1 equals $42 \times 50.00 \times 1.60 = \$3,360$; for year 2, $42 \times 51.5 \times 1.60 = \$3,461$; and for year 3, $21 \times 53.05 \times 1.60 = \$1,782$.

Accommodation costs in England: \$3,360 for year 1; \$3,461 for year 2; \$1,782 for year 3.

Subsistence (for research): Estimated at \$66 per day for the entire three years (as currently allowed by the University of Alberta as a per diem and recommended for the entire project by my Faculty).

Subsistence costs in England: $42 \times 66 = \$2,772$ for year 1; $42 \times 66 = \$2,772$ for year 2; $21 \times 66 = \$1,386$ for year 3.

Transport within England (for research). At the very least trips will be made to Winchester and Norwich. I have assumed one of these trips in year 1 (Winchester) and the other in year 2 (Norwich). Based upon the British Rail website, £35 (or \$56 Cdn) should be a reasonable senior return fare to Winchester in year 1 and about £45 (or \$72 Cdn) to Norwich in year 2. Underground travel in London on an Oyster card currently costs about £30, or \$48 Cdn, per week; I have assumed this for year 1, which would give $\$48 \times 6$ (weeks) = \$288. Applying 3 per cent inflation for years 2 and 3, this would give $\$49 \times 6 = \294 for year 2 and $\$50 \times 3 = \150 for year 3. Finally, a taxi from and to Heathrow will be needed because of luggage. At current rates of £50 per trip, this will cost £100 (or \$160) for each of years 1, 2 and 3.

Total Transport Costs: $\$56 + 288 + 160 = \504 for year 1; $\$72 + 294 + 160 = \526 for year 2; $\$150 + 160 = \310 .

TOTAL FOR ENGLISH TRIPS (APPLICANT): $\$1,600 + 3,360 + 2,772 + 504 = \$8,236$ for year 1; $\$1,648 + 3,461 + 2,772 + 526 = \$8,407$ for year 2; $\$1,697 + 1,782 + 1,386 + 310 = \$5,175$ for year 3.

b) Trip to U.S.A. by the applicant (for communication): giving paper (with PhD student) at the 50th International Congress on Medieval Studies at Kalamazoo, U. S. A., in May, 1215 (year 3). The cheapest

Langdon, John (Budget Justification) - 2

return economy airline ticket from Edmonton or Kalamazoo is now around \$800, which I will assume will be about the same in year 1. Assuming 3 per cent inflation from year 1 to year 3, this would be $\$800 \times 1.03 \times 1.03 = \849 . The cost of the co-ed residence housing for the conference in 2012 was \$35.50 U.S. per night (given the current exchange rate between the U.S and Cdn \$, I am assuming parity here, so that this would be \$35.50 Cdn), which I will apply to year 1. Assuming 3 per cent inflation this would be $\$35.50 \times 1.03 \times 1.03 = \36.62 for year 3. For the three nights of the conference this will amount to \$110. Cafeteria meals at the 2012 conference were available at \$31.00 per day for breakfast, lunch and supper. Assuming this cafeteria rate for year 1 and add 3 per cent per year to year 3, this would give $\$31.00 \times 1.03 \times 1.03 = \33 . For the three days of the conference, this would amount to \$99. Registration is currently at \$140 US (\$140 Cdn) for regular academics. I will assume a modest increase to \$150 for year 3.

Cost of U.S.A. trip by applicant: $\$849 + 110 + 99 + 150 = \$1,208$

TOTAL FOREIGN TRAVEL (APPLICANT): $\$8,236$ for year 1; $\$8,407$ for year 2; $\$5,175 + 1,208 = \$6,383$.

TRAVEL AND SUBSISTENCE COSTS: STUDENT

a) Trip to U.S.A. for (communication and as part of training for the student): attendance at the Congress of Medieval Studies at Kalamazoo as above. Costs for the student will be the same as the applicant with the exception that registration will be at the student rate. This was \$85 US for this year's Congress (2012), and I will assume an increase to \$90 US (\$90 Cdn) by year 3 of the project, thus making a total cost for the student of $\$849 + 110 + 99 + 90 = \$1,148$.

FOREIGN TRAVEL (STUDENT): $\$1,148$

PROFESSIONAL/TECHNICAL SERVICES (communication) Mapping the data will require the services of a professional cartographer. As currently envisaged, this will involve a single map. Based upon consultation with a cartographer I use here in Edmonton, this will likely come to \$500 (year 3).

As a new departure from my other projects, I am thinking of creating a new website specifically for this project. It will, in the first instance, contain the data and manuscript photographs collected during the research phase with an index to make the material as accessible as possible. In consultation with someone who creates websites professionally, \$1,500 in year 3 should be enough to get this started as a prototype for putting the material not only for this project online, but other materials that have been collected over the course of my career that connect to the project. This should prove very important for the communication of results.

Professional/Technical Services: $\$500 + 1,500 = \$2,000$ (year 3).

SUPPLIES (research and communication): Software: I have had good experience with ArcSoft PhotoImpression 6.5, currently at \$39.99 US (on their website) or \$40 Cdn and think it essential software to be purchased in year 1. General supplies: postage, paper, pens, etc., @ \$25 for each of the three years. **Total supplies: $\$40 + 25 = \65 (year 1); $\$25$ (year 2); $\$25$ (year 3).**

NON-DISPOSAL EQUIPMENT (research and communication): A new **laptop computer** will be required for this project for storing photographs and research data for the project. Current prices of adequate computers for the job seem to be around \$800 (Future Shop website); this will be purchased in year 1. The camera from my last project is still in good working order and will suffice for this project.

Total for non-disposable equipment: $\$800$ (year 1).

