WHITE PAPER
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Visualizing Spatial Experience in the Holocaust
Anne Kelly Knowles, PI
University of Maine
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Visualizing Spatial Experience in the Holocaust was an exploratory project that sought to develop new ways to discover, study, and represent Holocaust victims’ spatial experiences. What are spatial experiences? In normal, everyday life, almost everything we do or think has a spatial dimension. The living spaces of our house or apartment are intimate, familiar, secure. When we leave home for school or work, we have the sense of entering a larger world. Cities may feel crowded and rushed or stimulating and dramatic. Farm country may make one person feel peace, another boredom. The qualities and associations of the spaces we inhabit and through which we move affect our thoughts and feelings in countless ways. The structures and environments around us also influence our sense of self and relationships to other people.

While many aspects of the Holocaust have been studied extensively, the spaces and places of that cataclysmic event have only recently become objects of study. The members of the Holocaust Geographies Collaborative, many of whom were involved in this grant, have been working for more than a decade to understand the role of space and place in the history, geography, ideas, and personal experiences of those involved in the Holocaust. One of the most challenging problems our group has faced is how to bridge the gap between the well-documented history of the Nazis and other perpetrators of war crimes against civilians, including genocide, and the more subjective, individual, traumatic experiences of their victims. The places created by the Nazi regime are well known—think of Buchenwald, Auschwitz, and Treblinka, and the ghettos large and small in which Eastern European Jews were confined—but we know surprisingly little about how many kinds of such places existed, how they differed, and how their material characteristics and spaces shaped their inhabitants’ lives, fears, perceptions, and possibilities for survival.

In this NEH-funded project, researchers from the Holocaust Geographies Collaborative turned from mapping perpetrator spaces to engage deeply with oral history interviews with Holocaust survivors. We hoped to find traces of how people responded when the meanings of the spaces around them changed, often in sudden, violent transformations caused by invasion, war, arrest, confinement, terror, transport, or forced labor. Most of our work in the project was preparation for analysis that we will be carrying out in coming months. We first had to acquire nearly 1,800 transcripts of survivor interviews and process them to be fully machine-readable (a process called tagging), then learn and practice new methods of analysis and visualization from corpus and computational linguistics in order to study the interviews now grouped into “corpora,” bodies of text. These methods would enable us to study hundreds, even thousands of transcripts of survivor interviews. While listening closely to individual interviews is very valuable, we wanted to know whether more distant computer methods of textual analysis could help us find words and phrases that signified spatial experiences, and then help us study experiences across a large number of survivors. We were also very curious to see whether different groups expressed their experiences of particular places in distinctive ways. For example, did people speak of camps differently than ghettos? Did women remember their experiences in labor camps differently than men? Comparative analysis has been rare in Holocaust Studies. We hoped that this project would enable us to carry out a series of comparative studies of key groups and kinds of places in the Holocaust.
Our original goals were to develop:

1. A new, hybrid methodology that combines close listening with manual and computer visualization, corpus linguistics (CL), and natural language processing (NLP).
2. A specific suite of open-source software modules and a prototype dictionary of spatial and relational terms that we will use for further analysis of survivor interviews.
3. Three articles submitted to top academic journals summarizing our methodology and empirical findings.
4. Research presentations at four major academic conferences and elsewhere.

We engaged in all of these activities throughout the project period, though unexpected delays and opportunities produced somewhat different results than we had originally projected in our proposal.

The first significant change to our original plan was our receipt of unexpected financial support for the project. The biggest influx of support came from the USC Shoah Foundation, which sees our work as part of their efforts to promote digital scholarship on the Holocaust. Project advisor Wolf Gruner, Director of the Center for Advanced Genocide Studies at the Shoah Foundation, was instrumental in securing this support. The Shoah Foundation covered travel expenses to all of our team members’ meetings at USC, including a specialist conference on Digital Approaches to the Holocaust that our work help inspire. Our home institutions also provided support for travel. For these reasons, and another windfall noted below, we saved more than $11,000 from the grant, even as we repurposed some of the grant monies for additional meetings and research travel. The savings also helped us more deeply involve three graduate students in the project, Maël Le Noc (Texas State), Justus Hillebrand (University of Maine), and Alexander Reinhold (Lancaster University).

A second set of changes were related to the transcripts of video interviews that constituted our primary historical evidence for studying the spatial experiences of Holocaust victims. It happened that our project was funded in the midst of protracted negotiations between the Shoah Foundation and ProQuest to transcribe all 54,000 video interviews in the Foundation’s Visual History Archive (VHA). (We were among the experts the VHA consulted at this stage, to help develop protocols for tagging terms, gestures, and silence in the interviews.) Delayed implementation of the transcription project meant that we did not receive VHA transcripts until February 2018. This is why we requested a no-cost extension through March 2018. The unexpected boon was that, instead of receiving 50 English-language VHA transcripts, we received 984 – for free. This alone saved about $8,500 from our proposed budget.

The delay also prompted PI Anne Kelly Knowles to seek transcripts from the United States Holocaust Memorial Museum (USHMM). With support from the University of Maine, Knowles employed two undergraduate research assistants to download more than 800 English-language transcripts from the USHMM online collection.

Thus our working set of transcripts now totals nearly 1,800 interviews. This gives us a far richer body of evidence than we had planned, enough material to use beyond prototyping – to use in analysis and interpretation. The delay also had the unintended benefit of enabling us to work with Alexander Reinhold, a PhD student in GeoHumanities and Computer Science at Lancaster University. Alex’s PhD research (supervised by our team members Paul Rayson and
Ian Gregory is developing models for deep maps, one of which will be based on our set of interview transcripts and other data from the Holocaust Geographies Project. By reallocating some of our NEH funds, we were able to employ Alex’s advanced computing skills from December 2017, when we received the USHMM transcripts, through March 2018 to prepare the interview transcripts for linguistic analysis (a set of procedures called pre-processing). This turned out to be more complex than we had expected, in part because of all of the tags applied to the VHA transcripts. Alex’s skills also enabled us to add a very important element to the project: a draft gazetteer of the Holocaust based on all geographical terms in the VHA index (yet another unanticipated gift from the Shoah Foundation) in addition to GeoNames and other authoritative sources. This means that Alex’s geoparsing of the 1,800 interview transcripts is likely to be far more accurate and complete than geoparsing would have been using only GeoNames or other non-Holocaust-specific gazetteers.

Planning meetings
The research team met in person six times during the grant period:

- **At the USC Shoah Foundation**, the four principals (Anne Kelly Knowles, Tim Cole, Alberto Giordano, and Paul Jaskot) met with VHA staff, developed our conceptual approach to analyzing testimony, and selected ten sample VHA interviews for analysis.
- **At Lancaster University** (UK), we attended an intensive Summer School in Corpus Linguistics for the Humanities, where we learned the basic methods of corpus and computational linguistics. After the training, we met with our Lancaster team members, Paul Rayson and Ian Gregory, to plan the research methodology to apply corpus linguistic and natural language processing to Holocaust survivor interview transcripts.
- **At the bi-annual Lessons & Legacies Holocaust conference**, we presented our first findings to an audience of experts. Then at USC, virtually the entire team met with Gruner and staff of the Visual History Archive to discuss how and when we would receive VHA transcripts.
- **In Corvallis, Oregon**, Knowles and team member Erik Steiner met to discuss visualization strategies.
- **In Bristol and London, UK**, the four principals participated in a specialist conference on Holocaust Studies after the Spatial Turn, sponsored by the Centre for Holocaust and Genocide Studies, Bristol University, and the Holocaust Research Centre, Royal Holloway, University of London. This was followed by a writing retreat in Bristol during which we drafted a paper for the 2019 volume of Lessons & Legacies and planned a number of grant proposals, including three that were submitted during the grant period (see Continuation of the Project, below).
- **Digital Approaches to Genocide Studies, USC Center for Advanced Genocide Research**. This specialist conference brought together scholars from around the world who are using advanced digital methods to study genocide. Work by the Holocaust Geographies Collaborative was prominently featured throughout the conference. Afterward, we held a final planning meeting.
Other travel
PI Knowles traveled to Lithuania and Latvia in March 2017 to do field work and to attend an international meeting in Vilnius, “As Mass Murder Began: Identifying and Remembering the Killing Sites of Summer-Fall 1941,” sponsored by the International Holocaust Remembrance Alliance (IHRA) and the Vilna Gaon State Jewish Museum. Although this trip did not draw on NEH funds, it directly benefited the project by expanding Knowles’s network of Eastern European scholarly contacts and deepening her understanding of the traumatic events and places recorded in survivor interviews.

Training
The Lancaster Summer School in Corpus Linguistics for the Humanities in July 2016 effectively launched this project. We continue to work with the tools we learned there, and the Lancaster contingent of our team, Rayson (computer science) and Gregory (GIS and geoparsing), continue to provide essential technical support.

Training graduate students has become a bigger part of the project than we expected. Knowles worked closely with Alex Reinhard throughout his pre-processing of the transcripts, helping him understand the historical context and complications of our source material. She has introduced Justus Hillebrand to the Lancaster tools, and will be working with him and UMaine masters student Abigail Belisle Haley to analyze transcripts in summer and fall 2018.

Accomplishments
Goal 1: Methodology. Generally, our work under the grant has demonstrated the viability and potential value of combining close listening and reading of survivor video interviews with distant methods from the CL and NLP tools we learned at Lancaster University, namely AntConc and Wmatrix. These tools are well suited to iterative research, in which researchers move back and forth between query-based searches, general patterns, and specific instances in one or more particular texts. AntConc and Wmatrix also include visualization methods such as word clouds and concordance plots, both of which have already proven extremely useful in helping us search across many testimonies to find those most likely to be valuable in detailed analysis. We will write a full description of our iterative method in a journal article for either a Holocaust or GIS journal later this year. We are excited to realize that corpus analysis of Holocaust survivor interviews corresponds in scale to the continental scale of the Holocaust, sub-corpora to the regional scale, and individuals (of course) to the individual scale of the body, but with words and people rather than space and places.

One of our chief findings in relation to the CL tools in AntConc (such as word counts, frequency, concordance, N-grams, collocation, and keyword comparisons between corpora) are most useful when one is asking quite specific questions about how people speak in the interviews about their experiences. For example, we found that women tended to mention other women and girls and family members more than men, and to speak about what they did and did not know during the events they remember. Men tended to mention more place names and to say more about the places where they were put to forced labor and the kind of labor they did. The CL tools will also be extremely useful in “cleaning” the 1,800 interviews, as the tools flag terms the built-in data dictionary does not recognize (crucial for correctly tagging foreign words and phrases).
They quickly revealed that our supposedly English-language interview transcripts included interviews in French and Polish that must be removed.

Concordance will also be an important tool for developing a Holocaust-specific, historically meaningful set of semantic tags for analysis with our NLP toolset, Wmatrix. We think that semantic tagging has significant possibilities for developing a controlled vocabulary for topic searching, in relation to certain kinds of experience (such as forced labor) in particular places. Most important for our core geographical questions, being able to include non-coordinate places in this controlled vocabulary could significantly – perhaps even dramatically – enhance our ability to find and compare spatial experiences across hundreds and thousands of testimonies. For humanistic spatial analysis, it will be just as important, for example, to include “attic” and “cellar” and “barn” as the more familiar place terms, “Auschwitz” and “ghetto.”

The CL tools could also be useful for grouping interviews into analytically useful subcorpora – for the “scaling up” parts of our research. We have done this already by creating subcorpora for males and females, interviews that mention a ghetto, and those that include reference to two of our study locations, the ghettos in Budapest and Krakow. Many other groupings are possible, such as Hungarian vs. Polish women; survivors of Buchenwald compared to those who survived Bergen Belsen, and so on. With further tagging of interviews by the age of the survivor at the time of the Holocaust and when they were interviewed (information available from VHA metadata and within some USHMM transcripts), we could compare the memories and modes of expression of those who were young children versus teens or young adults during the war. It could be more challenging to tag individuals according to their social class or education or linguistic abilities, but these differentiations could also yield valuable analytical insights. Interviews could be grouped by factors related to the interview process as well, such as the year of the interview, the interviewer, and the organization that arranged and archived the interview. This would enable more comprehensive and detailed comparison of interviews as constructed artifacts of recorded memory, a field of growing interest within Holocaust Studies and oral history more broadly.

We also have a better understanding now of the limitations of these tools. It is difficult to see sufficient context in the AntConc and Wmatrix interfaces to grasp the nuances of spoken language. Comparing online searches to the original videos and transcripts will be part of our method, but both are time-consuming and so are most suited to intensive work on a few particularly rich or relevant interviews. We have also learned that the very tagging that makes it possible for linguistic software to identify parts of speech, semantic meaning, and place names also inserts strings of characters that clog the narrow view of context provided by the programs. The visualization tools in AntConc and Wmatrix are very useful for identifying temporal and semantic patterns in any number of texts. The concordance plots in AntConc are particularly good for quickly finding interviews that have extensive discussion of a given theme or place.

Goal 2: Software modules, data dictionary. This goal was hobbled by the delay in receiving VHA transcripts. The software modules are nearly completed, however, and will be posted on GitHub and flagged on the Holocaust Geographies Collaborative website at Texas State University as soon as they are ready. The data dictionary will be developed during our continued analysis of the interview transcripts. It should be done before December 2018. These delays,
however, have been more than offset by the large cache of evidence we now have to mine and the draft Holocaust gazetteer this project has produced. The whole team is committed to complete the project as proposed – in fact, our work with the transcripts has accelerated since March 2018.

*Goal 3: Publications.* We have published one substantive article in a top GIS journal and have another in press with the forthcoming volume in the bi-annual, highly selective book of best essays from the world’s leading Holocaust Studies conference, *Lessons & Legacies.* We have also written several other essays about the conceptual basis of this project and our preliminary findings (see Products, below). We plan to submit at least two more journal articles by the end of 2018.

*Goal 4: Presentations.* Team members have given far more presentations at academic conferences and as invited speakers than we proposed. Knowles, Cole, Giordano, and Jaskot spoke about this project in dozens of presentations in the United States, Canada, the United Kingdom, France, Poland, Hungary, and Lithuania. These included a number of invited keynote lectures (see Appendix B, below).

Through our continually expanding network of scholars engaged in digital history, including digital Holocaust Studies, we have come to realize that more and more researchers look to our methods and research questions for inspiration, guidance, and potential collaboration. Knowles and Cole were invited to a specialist workshop on qualitative spatial reasoning organized by David Bodenhamer and others, who see our work as potentially leading to widely applicable methods for studying the spatial aspects of experience recorded in all kinds of textual material and the spoken record. Our team is discussing collaboration with one or more of the projects sponsored by EHRI (European Holocaust Research Infrastructure), including working with researchers from USHMM and Yad Vashem, the national Holocaust memorial, museum, and archive of Israel, to develop an authoritative gazetteer of the Holocaust. The NEH Start-Up Grant was critical in pushing our research beyond the confines of GIS and perpetrator-generated evidence. It has opened up new audiences and many more avenues of research for digital Holocaust Studies and related fields.

**Audiences**
The main audiences for this project are the interdisciplinary fields of Holocaust Studies and Digital Humanities, History and Geography, and GIScience, along with the more specialized fields of Historical GIS, Spatial History, and GeoHumanities. The geographic reach of our research under this grant is international, including the United States, Canada, United Kingdom, and a number of other European countries. While we have not counted the size of audiences who have heard our presentations, a conservative estimate would be at least one thousand people. The most significant additions to our audience in relation to this grant are the scores of graduate students in Holocaust Studies and the Digital Humanities who have seen our presentations, and the rapidly growing awareness of our work among Holocaust scholars in Eastern Europe.
During the grant period, our team also entered into discussions with two major Holocaust museums – USHMM in Washington, DC, and the Imperial War Museum in London – about how our geographical approach to the Holocaust might become part of their public exhibitions. We are very excited about these possibilities, because of the museums’ popularity with the public and their very high curatorial standards. In June 2018, Knowles and Jaskot began discussing a possible collaboration with cartographers at National Geographic, an organization with which Giordano has an ongoing relationship through National Geographic’s promotion of geographic education at Texas State University.

Evaluation
This grant did not include formal evaluation. It is too soon to gauge public response to our work with Holocaust interviews. Anecdotally, however, response to our presentations has been overwhelmingly positive. For example, after Knowles’s lecture during Holocaust Remembrance Week at Oregon State University in 2017, the audience was so stimulated that discussion went on for nearly an hour, and continued in the lobby as Knowles signed copies of the team’s book, *Geographies of the Holocaust*. Her presentation at the mass murder conference in Vilnius, Lithuania, led to a number of invitations to collaborate, including to consult with a new museum of the massacre at Babi Yar in Kiev, Ukraine. The balance we aim to strike between telling powerful visual stories and using critical analysis at many scales seems to appeal to lay people and scholars, humanists and social scientists.

Continuation of the Project
Visualizing Spatial Experience in the Holocaust was a key step toward incorporating victims’ perspective in all aspects of the Holocaust Geography Collaborative’s ongoing research. In addition to completing the data dictionary and writing articles about our methodology and analytical findings, we plan to build on the NEH Start-Up Grant activities in a number of ways. We have submitted grant proposals to fund several of them.

Grant proposals funded:
In early 2018, Jaskot received funding from Duke University and USHMM to hold an event called “Visualization and the Holocaust: Analyzing Space and Place with Digital Methods and Geographical, Textual, and Visual Sources” in January 2019 at Duke. The event will include a one-day public conference, with presentations by Holocaust Geographies Collaborative members and other experts in geovisualization and Holocaust scholarship. This will be followed by a closed meeting of Collaborative members with the geovisualization experts, the goal of which is to brainstorm new visual methods to combine the strengths of GIS, cartography, other modes of data visualization, and linguistic analysis.

In spring 2018, Victoria Szabo (Duke University) and co-PIs Jaskot and Mark Olson received funding from the Getty Foundation for the Summer Institute on Advanced Topics in Digital Art History: 3D and (Geo)Spatial Networks, held at Venice International University. The two-week Institute runs in two successive years, June 2018 and June 2019.
As an extension of the Getty Foundation-funded Summer Institute on advanced art historical topics dedicated to 3D modeling and spatial analysis, Jaskot will work on a digital reconstruction of the Krakow ghetto. With Duke funding, he and his research team at the Wired! Lab will begin development in fall 2018, along with Knowles and her PhD student, Justus Hillebrand, with the aim of visualizing the ghetto in relation to evidence from Holocaust survivor interviews and our HGIS of ghettos in the Krakow region and beyond.

In 2017, Cole and Giordano received £50,000 from the Tony Schiff Foundation to enrich their HGIS of the Budapest ghetto with survivor data, which will also facilitate connecting survivor testimony to locations in the city.

Grant proposals under review or not funded
In January 2018, Knowles submitted a proposal for an NEH Digital Humanities Advancement Grant of $325,000 to fund three years’ work to develop an historical GIS of Holocaust ghettos in Eastern Europe, a gazetteer of Holocaust places, and methods for jointly analyzing and visualizing ghettos with the experiences recorded in survivor interviews. Decision expected in August 2018.

In October 2017, team members Gregory, Rayson, and Knowles submitted a proposal to the Economic and Social Research Council North West Social Science Doctoral Training Partnership program for a three-year CASE PhD studentship. Knowles and Rayson were also included in Gregory’s 2017 proposal for a five-year Advanced Grant from the European Research Council for a project on geographical analysis of digital texts, including Holocaust survivor interview transcripts. Although these proposals were not successful, they helped launch the involvement of Rayson and Gregory’s PhD student, Alex Reinhold, who became an outstanding contributor to Visualizing Experience in Holocaust Testimony.

Proposals planned:
Cole will submit a proposal with the Imperial War Museum, London, to the AHRC in July 2018, for a project called “One Day.” This project aims to present the complexity of the Holocaust at its many scales by looking at a single day across Europe and the German-occupied former Soviet territories.

In fall 2018, Cole and Giordano plan to submit a major proposal to the trans-Atlantic competition (NSF and ESRC, or NEH and AHRC) to fund their ongoing research. It will revolve around the idea of conceptualizing and designing a GIS of place and space centered on their HGIS of Budapest and populated with testimonies. Social and physical networks, topology, and a careful and close listening to testimonies (with and without CL) will be crucial methods.

Long Term Impact
The long-term impact of our analysis of Holocaust survivor interviews remains to be seen. If reviewers’ swift approval of Cole and Giordano’s article for Transactions in GIS is any
indication, however, GIScience and GeoHumanities scholars, along with humanistic geographers and computer scientists, are likely to be very interested in our work. The high profile our project now has in these fields and in Holocaust Studies is indicative of how much scholars value our critical yet exploratory approach. In Holocaust Studies, there is a wave of interest in finding ways to bridge the gap between studies of perpetrators (the Nazis and their allies) and studies of victims. Visualizing Spatial Experience in the Holocaust is our first major step toward accomplishing that goal, by focusing a new set of methodologies on victims’ experiences.

Impact on research team members
Knowles was appointed to a five-year term as the Colonel James C. McBride Distinguished Professorship in History at University of Maine in September 2017. In 2015-2016, Knowles founded the University of Maine Digital & Spatial History Lab, whose work focuses mainly on the Holocaust Geographies project. In 2016 she joined the USC Shoah Foundation Visual History Archive’s External Advisory Committee.

In 2017, Giordano was elected President of the UCGIS (University Consortium for Geographic Information Science), on a platform of promoting the integration of GIScience with humanistic research. The 2019 meeting of the UCGIS will revolve around the GeoHumanities. Giordano hopes that the meeting can lead to a good discussion with GIScientists about the topics our group has been interested in for several years, including qualitative methods, GIS of place, place and space in GIScience, and representing experience through mixed-methods approaches including GIS. UCGIS is also thinking about sessions on these themes for emerging scholars and graduate students. One angle UCGIS members are interested in is “big data” and in this context Holocaust testimonies could be a good case study.

Jaskot joined the Art History Department at Duke University in August 2017 and was appointed Director of the Wired! Lab for Digital Art History. In June 2018, he co-directed the two-week Visualizing Venice Summer Institute in Venice, sponsored by the Getty Museum and Duke University. He will co-direct the follow-up Institute in June 2019.

Cole was appointed to the Advisory Board for the new Holocaust permanent exhibition at the Imperial War Museum, and was appointed as a research associate at that museum.
Appendices

Appendix A: Preliminary products – Conference papers


Alberto Giordano, “From the National to the Individual: A Narrative of the Holocaust in Italy,” Holocaust Studies after the Spatial Turn, International Research Workshop organized by the Centre for Holocaust and Genocide Studies, University of Bristol and the Holocaust Research Institute, Royal Holloway, University of London. Bristol and London (2017).


Alberto Giordano, “From the National to the Individual: Narratives of the Holocaust in Italy,” Italian Academy, Columbia University, San Diego (February 2018).


Anne Kelly Knowles, Justus Hillebrand, Levi Westerveld, Laura Strom, Mara Moettus, Paul B. Jaskot, Ben Blackshear, and Erik Steiner, “Can Digital Holocaust Geographies Be Human?” Space, Place, and Geographic Thinking in the Humanities conference, Center for Geographic Analysis Conference, Harvard University (April 2016).

Anne Kelly Knowles, “Visual Ways of Knowing the Past” (invited), German Historical Institute, Workshop and Conference, Creating Spatial Historical Knowledge: New Approaches, Opportunities, and Epistemological Implications of Mapping History Digitally, Washington, DC (October 2016).

Anne Kelly Knowles, “Seeking Space and Place in Holocaust Testimony” (invited), Center for Geographic Analysis, Harvard University (October 2016).


Anne Kelly Knowles, “Geographies of the Holocaust,” European Humanities University, Vilnius, Lithuania (March 2017).

Anne Kelly Knowles, “Visualizing Space and Place” (lecture) and “Strategies for Visualizing Space and Place” (workshop), Space and Place in the Humanities: An Introduction to the GeoHumanities, NEH Summer Institute for College and University Teachers, Northeastern University (August 2017).


Appendix B: Publications related to this grant


In press or under review
Guan, Wendy W., Matthew W. Wilson, and Anne Kelly Knowles, “Evaluating the Geographic in GIS (or How Might GIS Do Geography?),” in final review, *Geographic Review*.


**Appendix C: Publicity or media coverage and screen shots from websites**


Appendix D: Screen shots from websites

People

Current Principal Investigators

Tim Cole
University of Bristol
tim.cole@bristol.ac.uk

Tim Cole is professor of social history at the University of Bristol. He received his PhD in geography from the University of Cambridge. Tim has wide-ranging interests in social and environmental histories, historical geographies and digital humanities, and also works within the creative economy. His core research has focused on the memory of Holocaust landscapes—both historical and memory landscapes—writing books on Holocaust representation and images of the Holocaust in Hungary (Holocaust: History, Memory, Landscape, 2005) and also co-editing a collection of essays emerging from an interdisciplinary digital humanities project he co-led (Geographies of the Holocaust, 2018). Alongside this research, Tim has also developed interests in environmental history, being a co-editor of a study of military landscapes (Military Landscapes, 2011) and now working on a new book that explores social, cultural, landscape, and environmental change in post-war Britain about British life.

List of publications.

Alberto Giordano
Texas State University
giordano@txstate.edu

Alberto Giordano is professor and Chair of the Department of Geography at Texas State University in San Marcos. He holds a PhD in geography from Texas A&M University, a MA in geography from the University of California at Santa Barbara, and a BS in geography from the University of Naples in Italy. Before pursuing an academic career, he worked in the map publishing sector and in the GIS field as a consultant for private companies and public agencies in Italy and internationally. His most recent work has focused on the geography of the Holocaust and genocide, spatial applications of forensic anthropology, and historical GIS. He is the author of one book (in Italian) on quality control in GIS and of several publications in GIScience, historical cartography, and hazards geography. He is a member of the Editorial Board of the 2009 edition of the Geoaer World Atlas.

Resume and list of publications.

Paul Jaskot
Duke University
taxon@dalton.duke.edu
http://www.daltoncenter.org/

Paul Jaskot is professor of art history at Duke University’s Department of Art, Art History and Visual Studies. He teaches courses on the history of architecture, and specialized courses on the art and architecture of modernity and the Holocaust as well as topics in Chicago architecture. Joining Duke in 2001, he is the director of the Weitz Lab for Digital Art History & Visual Culture, to which he also contributes classes on topics related to the field of digital art history. Jaskot’s research interests extend from his research interests, and he has focused on many topics related to modern German culture in particular. His specific area of research has mostly focused on the cultural history of Holocaust atlases and its potential impact on art and architecture. Recently, he and his scholarly work focused on the central role of art history in the modern world. He has also published numerous essays that have explored the political function of architecture in the modern period, leading up to his most recent book The Nazi Depopulator: Rothera’s German art as a Political Act (Ravenhills 2012). He has also co-authored three essays in Historical GIS and the Holocaust in Geographies of the Holocaust (Indiana 2014). His current project focuses on a deep history of the German construction industry, for which he will contribute content on fascist-era construction work to the ongoing collaborative analysis of photos in occupied Europe led by Anne Kelly Knowles. In addition to his research, Jaskot has served as a member of the Board of Directors (2013-2014) of the College Art Association, the U.S. professional group for arts and art historians, as well as director of the Holocaust Education Foundation’s Summer Institute on the Holocaust and Jewish Studies (2007-2012). From 2008-2012, he was the President of CAA. Prior to his appointment at Duke, Jaskot was a professor of art history at DePaul University and the inaugural Director of DePaul University’s Center for the Humanities (Interdisciplinary). Resume and list of publications.

Anne Knowles
University of Maine
www.anneknowles.com

Anne Kelly Knowles is the C. Colonel James C. McMillen Distinguished Professor of History at the University of Maine Orono. She received her PhD and MGS in geography from University of Wisconsin-Madison. She has been a leading figure in the Digital and Spatial humanities, particularly in the methodologies of Holocaust GIS, for more than twenty years. She has written or edited five books, including Placing History: How Maps, Spatial Data, and GIS are Changing Historical Scholarship (2008), Meaning from The Struggle to Modernize an American Industry, 1880-1930 (2010), and Geographies of the Holocaust (2014). Anne’s pioneering work with historical GIS has been recognized by many fellowships and awards, including the American Historical Society’s Distinguished Scholar Award for Historical Scholarship (Geographical), 2012 and a Guggenheim Fellowship (2016). She is a founding member of the Holocaust Geographies Collaborative.

List of publications.
Affiliates

Ian Gregory
Lancaster University
ian.gregory@lancaster.ac.uk

Ian Gregory is a geographer by training and has spent much of his career working applying Geographical Information Systems (GIS) to historical research, a field that he has become known as Historical GIS. As a result of the growth of digital humanities, Ian has become particularly interested in using GIS with texts as well as the more traditional quantitative sources. This has been the subject of a number of successful grant applications including the European Research Council grant Global Humanities: Texts, GIS, Places project.

Resume and list of publications

Justus Hillebrand
University of Maine and University of Cologne
justus.hillebrand@maine.edu

Justus Hillebrand is a PhD Candidate (ABD) at the University of Maine and University of Cologne, Germany. He has worked with Anna Kelly on the Stelios database since early 2016, including developing prototype relational database designs, testing their feasibility for mapping in GIS, writing rules for data entry, and training undergraduate research assistants on the project. His dissertation, supervised by Anna Kelly, is a transatlantic knowledge history of agricultural modernization in late-nineteenth-century Germany and the United States. In which he employs GIS and other digital methods, Justus has presented several papers jointly with colleagues at international conferences, including the American Association of Geographers and Lenses and Logos. He has published an article on African Americans in Maine in Maine History and has an article on his current research forthcoming in a special volume on agricultural reform and resistance in an age of globalization.

Resume and list of publications

Mobil Le Noc
Texas State University
mobil.lenoc@txstate.edu

Mobil Le Noc is a PhD student in Geography at Texas State University working under the supervision of Alberto Giordano. He grew up in France and received his master's degree in Geography from Texas State University in May 2016. His main research interests include Historical GIS and the Geography of the Holocaust. With a focus on family separations, he also cooperates with the collective “Connais-tu un Juif caché?” which investigates the question of hiding in Paris during the occupation period.

Resume and list of publications

Paul Royson
Lancaster University
paul.royson@lancaster.ac.uk

Paul Royson is director of the UDAS research centre and is Reader in the School of Computing and Communications, in the e-textology building at Lancaster University in Lancaster, UK. A long term focus of his work is the application of semantic-based natural language processing in extreme circumstances where language is noisy (e.g. in historical, war, speech, email, log, and other computer-mediated communications domains). His applied research is in the areas of dementia detection, online child protection, cyber security, learner dictionaries, and text mining of historical corporate and annual financial reports. Paul is a co-investigator of the five-year ESRC Centre for Cypriot Approaches to London Literature (C2LL), which is designed to bring the紧扣 approach to bear on a range of social sciences. He is also a member of the multidisciplinary Centre Security Lancaster, Lancaster Digital Humanities, and the Data Science Institute.

List of publications

Erik Steiner
Stanford University
erik11@stanford.edu

Erik Steiner is Co-Director and co-founder of the Spatial History Project at the Center for Spatial and Textual Analysis (CSTA) at Stanford University and former President of the North American Cartographic Information Society (NACIS). The Spatial History Project is recognized as one of the world’s leading digital humanities labs engaged in spatial analysis and visualization – over the last 10 years it has developed more than 60 such projects and collaborations on datasets. In addition to being Co-Director, Erik is an interaction designer and cartographer with deep experience working at the intersection of technology, creative arts, and academic scholarship in the humanities and social, and environmental sciences. He has led the design and development of dozens of interactive and information design projects through major grants from the Getty, Kress and Mellon foundations, NCH, NSF, and ACLS.

CSTA website

Anika Wolff
Washington University in St. Louis
anika.wolff@wustl.edu

Anika Wolff, Ph.D., is Assistant Professor in the Department of History at Washington University in St. Louis. Anika was educated at the University of Edinburgh, Germany and the State University of St. Petersburg, Russia, before she completed her doctorate at the University of California Santa Cruz. Anika’s research and teaching interests include World War II and Nazi genocide, migration, nationality politics, and Cold War history in the former Soviet Union and Europe. See books, Fleeers and Pioneers: An Oral History of East German Jews in Siberia (Oxford University Press), 2015, weaves together oral histories, video testimonials, and memoirs to show how the first generation of Soviet Jews experienced the post-genocidal and how they remember it after the discussion of the IHRA in 1993. A current research project is devoted to the long aftermath of the Holocaust and World War II. Far FROM Home: the role of space and place in her inquiry. Anika examines how people remember and live with the effects and repercussions of systematic violence and genocide in Siberia, including population losses, the utility of mass graves sites, environmental damage as a result of workings, and the destruction of cultural heritage sites.
Research projects

The Evolution of the SS Concentration Camp System, 1933-1945
Arrests of Italian Jews, 1943-1945
Mapping Mobility in the Budapest Ghetto

Auschwitz Study
Landscapes of Experience
Budapest Ghetto

A Geography of Complicity
The Holocaust in Italy
Mapping the SS Concentration Camp System over Space and Time

Selected Publications

Edited volumes

Geographies of the Holocaust
McGill-Queen's University Press, 2016

This new series will feature papers on the study of the Holocaust through the lens of geography, bringing together history, theory, and practice to explore the ways in which the Holocaust was both produced and perceived through geographical means.

Topics include: The Holocaust and the geography of memory, the Holocaust and the geography of place, and the Holocaust and the geography of representation.

Monographs

Holocaust Geographies
Cambridge University Press, 2016

This book provides an overview of the field of Holocaust geographies, examining the ways in which geography has been used to understand and interpret the Holocaust.

Chapters in books

War AGE, with Anna Shaffer, The City, Urbanization, and the State
New Directions in Geography, 2017

Journal articles


Open Access Publications

http://holocaustgeographies.geo.txstate.edu/publications.
Sample pages from the Holocaust Geographies section of the Stanford Spatial History website, including map animation, [https://web.stanford.edu/group/spatialhistory/cgi-bin/site/viz.php?id=379](https://web.stanford.edu/group/spatialhistory/cgi-bin/site/viz.php?id=379).