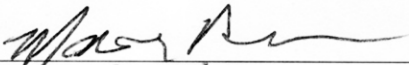DISCOVERING THE PLACE WHERE ALL THEY HAD ENDED: A STUDY IN HOLOCAUST
TOPONYM GEOREFERENCING AND SPATIAL ASSOCIATION

by

Michael J. Bekisz
A Thesis
Submitted to the
Graduate Faculty
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The Requirements for the Degree
of
Master of Science
Geoinformatics and Geospatial Intelligence

Committee:

_____	Dr. Matthew Rice, Thesis Director
_____	Dr. Anthony Stefanidis, Committee Member
_____	Dr. Arie Croitoru, Committee Member
_____	Dr. Burl Self, Committee Member
_____	Dr. Anthony Stefanidis, Department Chair
_____	Dr. Donna M. Fox, Associate Dean, Office of Student Affairs & Special Programs, College of Science
_____	Dr. Peggy Agouris, Dean, College of Science
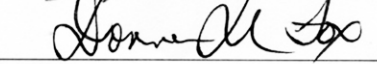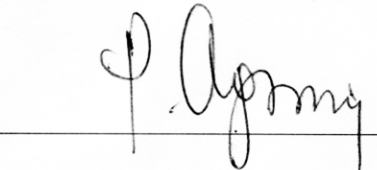
Date: ___12/3/14___ Fall Semester 2014
George Mason University
Fairfax, VA

Discovering The Place Where All They Had Ended: A Study In Holocaust Toponym
Georeferencing And Spatial Association

A Thesis submitted in partial fulfillment of the requirements for the degree in Master of
Science at George Mason University

by

Michael J. Bekisz
Master of Science
National Intelligence University, 1999

Director: Matthew Rice, Associate Professor
Department of Geography and Geoinformation Science

Fall Semester 2014
George Mason University
Fairfax, VA

DEDICATION

I would like to dedicate this thesis to my loving wife and children who patiently waited while I journeyed to grim places in history. I would also like to dedicate this work to my parents who gave me roots and wings.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

DISCOVERING THE PLACE WHERE ALL THEY HAD ENDED: A STUDY IN
HOLOCAUST TOPONYM GEOREFERENCING AND SPATIAL ASSOCIATION

Michael J. Bekisz, M.S.

George Mason University, 2014

Thesis Director: Dr. Matthew Rice

This thesis is a geohistoric forensic case study that addresses how toponym, or place

name deviation may hinder the processes of georeferencing and spatial association. The

temporal and spatial constraint for this study is World War II era Lithuania, where the key

historical reference is a Holocaust related document known as the Jäger Report. This

report chronicles temporal, spatial and cultural data related to genocide actions carried

out at multiple locations over a five month period in 1941 by occupying Nazi German

forces in Lithuania and the Baltic Region. A methodology will be illustrated to identify

and mitigate hindering factors such as toponym translation between disparate languages

and culturally unique alphabets containing diacritics. This methodology will include the

use of historical maps, gazetteers and databases to cross-reference spatial information in

order to improve the understanding of locational data and to discover what geospatial

context is associated with the name of a place.

CHAPTER ONE: INTRODUCTION

1.0 Chapter Overview

This thesis is a geohistoric forensic case study that addresses how toponym, or place name deviation, found in a Holocaust related document known as the Jäger Report, impact the research process with regards to georeferencing and spatial association. The spatial and temporal stage for this study is World War II era Lithuania (Figure 1). In order to provide context to this examination, Lithuania's historical background will be discussed taking into account the nation's occupation by bordering and regional adversarial nations during the time frame preceding and including World War II. These nations included Poland and the Soviet Union; however specific emphasis will be placed on Nazi Germany's spatial ideological impact on Lithuania's population. This ideology equated to the goal of expanding occupation eastward and by colonizing Eastern European nations with Germanic people via forced migration and elimination of undesirable ethnic groups as determined by the Nazi Regime. Theory and doctrine connected with this ideology are introduced to illustrate the Nazi mindset and how they planned on moving past occupation and implementing colonization. This chapter culminates with the definition of primary and supporting research questions, the associated research objective, and a brief description of thesis organization.
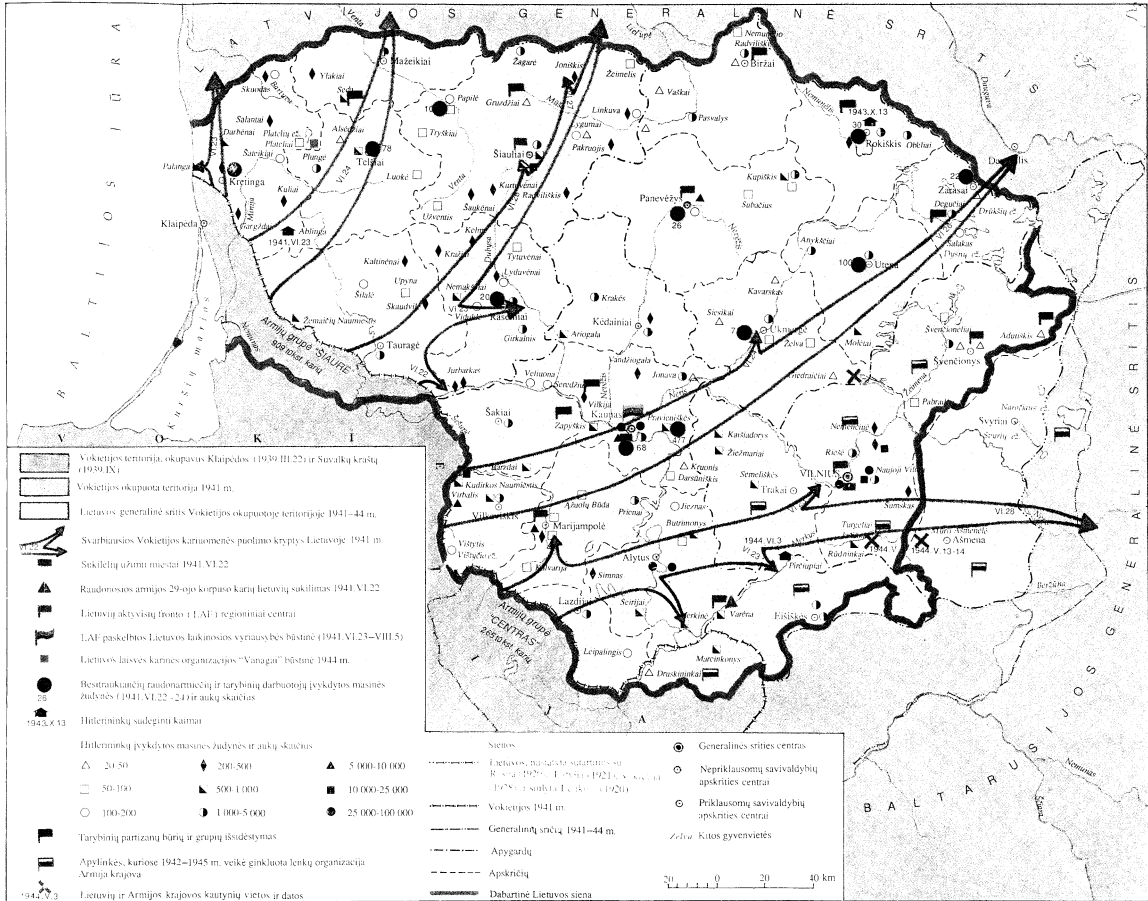
Figure 1: The Nazi Regime in Lithuania (June 22, 1941 – July 8, 1944)

1.1 Region of Study Background

The nation of Lithuania is one of three Eastern European countries that make up the Baltic States. Currently it is bordered by Belarus to the southeast, Latvia to the north, and Poland to the southwest, however these borders have fluctuated over the centuries as Lithuania has historically been a nation influenced and often times adversely impacted by neighboring countries infringement on their sovereignty.

In the years leading up to and including World War II, the country was again at a crossroads between the nations of Poland, Soviet Russia and Nazi Germany. During this

2

time period, Poland annexed part of Lithuania, to include the capital of Vilnius in 1919 (Weeks, 2006); was under Soviet rule as a result of the Soviet-German Molotov–Ribbentrop Pact of 1939; was invaded by Nazi Germany in 1940; and finally incorporated into the Soviet Union (Kaszeta, 1988).

According to the Lithuanian Statistics Yearbook of 1938, in addition to the indigenous Lithuanians, the country's population also consisted of Jews (*Žydai*), Germans (*Vokietijos*), Poles (*Lenkijos*), Russians (*Rusijos*), Latvian (*Latvijos*), Belarusians (*Baltarusių*), and others (*Kitas*). There was also a diversity in religion, to include Catholic (*Katalikų*), Lutheran (*Liuteronų*), Evangelical Reform (*Reformos*), Other Christians (Kiti Krikščionys), Jewish (*Izraelitas*), and Muslim (*Mahometas*) (Lithuanian Central Statistics Office, 1938).

Due to Lithuania's cultural and religious diversity, linguistic diversity among the different cultural groups was probable. During World War II, some of these ethnic and religious groups would find themselves caught in a battle of ideologies that would end with the displacement (both within Lithuania, and outside its borders), confinement or death of thousands of the populace.

Although all ethnic groups were affected, the predominant ethnic and religious group that suffered the most casualties by this battle were the country's Jewish population where many vanished in the brutal fog of war and genocide. Of the estimated 250,000 Jews living in Lithuania in 1941, approximately 90% were murdered, and an additional 10,000 were deported to concentration camps in Germany prior to German withdrawal and the reoccupation of Lithuania by Soviet Russia in 1944 (Holocaust Encyclopedia –

Lithuania, 2014). As this thesis focuses on the Nazi German impact on Lithuania, the

following section will narrow the scope to address that interaction.

In September of 1939 *Obergrüppenführer-SS* (Senior Group Leader) Reinhard

Heydrich delivered an order known as the Schnellbrief to officers under his command,

directing them to move the Jewish population via train and concentrate them in large

urban areas. Two years later, in June of 1941, Germany began their invasion of the

Soviet Union with the implementation of Operation Barbarossa.

Prior to this invasion, Heydrich, who commanded Commando Units known as the

Einsatzgrüppen (Special Task Force) were directed by their commander to accompany the

advancing German forces in their rear echelon of the ground forces eastward to invade

and conquer Soviet Russia. The main mission of these commando units, as directed by

Heydrich was to exterminate all Jews in conjunction with their advancement toward

Soviet Russia (Holocaust Encyclopedia – Reinhard Heydrich: Time-line, 2014).

Elements of the Einsatzgrüppen involved with operations in Lithuania were

commanded by *Standartenführer-SS* (Standard Leader) Karl Jäger. During a period of

five months in the summer and fall of 1941, Jäger directed and documented the

extermination of 137,346 people at over 70 locations in Lithuania and in bordering

countries. This documentation known as the Jäger Report was an account detailing the

date, location, and number of predominantly Jewish men, women and children that were

executed under his command (Klee, Dressen, Riess, 1991).

The Jäger Report is the key geohistorical source document related to this thesis.

The importance of this document will be illustrated in the following section where the

research question and objectives will be introduced. This document will also be

examined in greater detail in the Data Description chapter.

1.2 Research Questions and Thesis Objective

Upon initial review of the Jäger Report, two specific questions became apparent:

first, were the locations identified in the report geospatially accurate?; and second, what

other locations may be associated with the locations identified in the report? These

questions evolved into the primary research question for this thesis which is, *"to what*

degree does toponym deviation as listed in the Jäger Report, hinder the research process

with regards to place name georeferencing and discovering spatial associations?"

Determining this degree of deviation will be the research objective of this thesis.

1.3 Thesis Organization

This thesis is comprised of six chapters to include this introductory chapter which

provides background to the region of study and highlights the thesis overarching

questions and objectives. The second chapter focuses on a review of the literature

associated with geo-historical era in addition to the place name, or toponym variation

resulting from conflict. This review will examine the theory and application of Third

Reich spatial doctrine as it relates to Hitler's *Drang Nach Osten*, or German colonization

of the eastern occupied territory, which included the Baltic State of Lithuania. Regarding

this colonization, it stands to reason that, in addition to the cultural assimilation, there

would be a linguistic assimilation.   Chapter 3 will describe the data found in the key

source document, the Jäger Report, and supplementary data sources in the form of

historical maps, gazetteers and databases. Methodology for this thesis will be defined in

Chapter 4, where a six phase process will be defined that will address the research question and objective. Chapter 5 will apply this methodology in order to compile, assess and deliver research results that could provide new insights and future research directions. The thesis will conclude with Chapter 6, which will summarize the stated research and address directions for future areas of study.

CHAPTER TWO: CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.0 Chapter Overview

As defined in the research question stated in the previous chapter, the focus of this thesis is on how toponym deviation impacts georeferencing and discovering spatial associations. Since this research focus is layered over a geohistorical event, emphasis needs to be placed on both the linguistic and spatial elements (i.e., language and place names) in addition to the cultural and geohistorical factors. The approach to determining spatial fidelity and association of location will be discussed at length and applied in both the methodology and results discussion of this thesis.

The first section of this chapter will examine toponyms and their relation to geography and also address the history and linguistic challenges of the Lithuanian language. The second section will review and provide geohistoric contextual background to the primary historical data source of this thesis which is the Jäger Report. This background is critical to understanding, not only the place names associated with the report, but also the temporal and cultural aspects that reveal the immediacy and fury behind the reports agenda.

2.1 Linguistic and Spatial Review

2.1.1 Toponyms and Geography

A simple but powerful question is posed *"What's in a Name?"* This question is an elemental starting point for understanding the importance of a toponym in time, space, culture and language. For the purpose of this thesis, where toponym deviation is a key area of emphasis, the theme that will be explored is another seemingly simple concept, which is change.

The authors make the observation that one type of name change is translation, and that the action of change can often times have a political motive. They also observe that when a place name is integral to the associated culture, the change can be politically formidable, in that the name change is inflicted on the populace by the powers that be. The political upper hand can be gained to control and maintain power, which appears legitimate because it rests in the hands of the political entity (Radding, Western 2010)..

2.1.2 Unique Challenges Associated with the Lithuanian Language

By linguistic definition, Lithuanian is a Baltic language and is part of the higher Indo-European language hierarchy, holds the distinction of being the oldest variant of that group. To illustrate the complexity of the language, the author observes that due to the unique nature of the Lithuanian language, it cannot be understood by someone who speaks another language; in other words, unless you have specifically studied and learned Lithuanian, you will not be able to infer meaning using a different language. The challenge associated with communicating in Lithuanian is even greater in that people

who speak different dialects of the language cannot understand each other unless they revert to using the standard version of the language.

The history of the Lithuanian language has been influenced by those of neighboring countries, specifically German and Polish. For example, German language books and educational materials were produced for the Lithuanian populace from the 16th to the mid-20th century. Poland's influence on the Lithuanian language was such that letters of the Polish alphabet were incorporated into that of Lithuanian.

By the end of the 19th century, German and Polish influence began to wane as the Lithuanian culture moved toward a more unique language variant that included diacritics and could not be associated with the languages of other nations.   While the movement toward standardization driven by national consensus provided the nation with a common language, it rendered those outside of Lithuania realm with a communication challenge. The author makes an additional observation that when utilizing on-line resources, languages that have alphabets with diacritics such as German, Polish, Latvian and Lithuanian can be challenging to research (Subačius, 2002).

2.2 Cultural and Geo-historical Review

Since the locations as described in the Jäger Report are elemental to this thesis, emphasis will be placed on events that occurred as a result of Nazi German actions in Lithuania during World War II. These events are associated with the spatial and social consequence of Nazi German doctrine from the national to the street levels in Lithuania. In order to better understand how Nazi ideology affected it's adversaries, it is instructive to examine the origins and underpinnings of this ideology; how it was conceived and

applied by Hitler's Third Reich via strategic doctrine and operational execution; and how

it was ultimately held accountable on the world stage. The following historical sequence

of events will be examined in this chapter: Geo-Political Origins of Nazi Ideology;

Spatial theory of Nazi Germany; The Origin of the Einsatzgruppen; The General Plan

East; The Schnellbrief; The Lithuanian Holocaust; Vilnius during World War II; Vilnius

and the 1942 Census; and the Nuernberg Military Tribunal's case against the

Einsatzgruppen.

2.2.1 Geo-Political Origins

From a theoretical standpoint, two men influenced Hitler's spatial and geo-

political ideology; geographer Friedrich Ratzel and Dr. Karl Haushofer. Ratzel is credited

for coining the term Lebensraum (Living Space), and worked to communicate the

concept of political geography as a discipline that focused on man's association with his

physical geography and that the state distributed life on earth and that man and soil were

shaped by the state. He also equated man's struggle for space as integral to his survival,

and that space was the property of the victor. The concept of bio-geography, combined

geo-spatial expansion with biological development, and that this development would be

hindered by other than first rate racial distinction on it's territory.

Haushofer, whose father was a colleague of Ratzel, was influenced by the older

man with regards to spatial viewpoints. He believed that the concepts of state and power

were synonymous, and that this power could only be achieved and maintained by either

colonization, unification or conquering other states. Perhaps Haushofer's key

contribution to the geopolitical discourse was his concept of borders. He believed more

in dynamic border regions than defined borders, viewing this definition as temporary,
fluid and rife for change by armed nations seeking territorial expansion. (Herwig, 1999).

2.2.2 Making Space and Central Place Theory

Spatial considerations were at the forefront of Nazi ideological pursuits during
World War II. In order to establish "Lebensraum" or living space for the German people,
room was required. In order to fulfill this action, movements known as
"deterritorialization" and "reterritorialization" needed to be accomplished. In basic terms,
the former entailed moving non-Germanic people from the land, while the later process
involved moving "legitimate" Germans into the space that was vacated.

The concept of Großraum or Greater Space, developed by lawyer Carl Schmitt,
provided the spatial, legal and political justification for the reterritorialization of the
empty space and more broadly, for National Socialist right to expansion equating to
justification for Nazi world dominance. A contemporary of Schmitt, geographer Walter
Christaller working under the auspices of the *Reichskommiseriat für die Festigung
Deutchen Volkstums* (Realm Department for the Strengthening of German Nationhood) or
RKFDV was charged with determining the best approach to establishing the internal
geographies of new German territories. The concept Christaller developed was Central
Place Theory where urban locations were geometrically centered supporting the
surrounding towns and rural areas. Both Schmitt and Christaller were responsible for the
establishment of spatial order and stability, however they were also knowingly or
unknowingly complicit in developing a spatial theory that the Nazis used as a basis of
justification for recreating a master race centric German state (Barnes and Minca, 2012).

2.2.3 Generalplan Ost (GPO)

The *Generalplan Ost* (GPO) or Master Plan East was envisioned by *SS-Reichsführer* Heinrich Himmler as a means of acquiring vast territories that would be transformed into a German colonial empire based on racial reorganization. Implementation of this plan was predicated on German *Wehrmacht* "Defense Force" defeating the Soviet forces (Welch, 2001).

The German version of the GPO that was examined consists of three main parts objectively addressing the following areas: future settlement receivables; territorial structure, cost, application; and demarcation of main features. Each area is further broken down into further levels of detail. The systematic and thorough approach to the drafting of this plan indicates the serious intent of the *Wehrmacht* to carry out it's mission, and also an optimism that only the task of defeating the Soviet forces stood in the way of this implementation, which as history reminds us, was not the case.

A postscript to the GPO attributed to *Reichsführer* Himmler entitled "*Some Thoughts on the Treatment of Foreign Nationalists in the East*" clarifies the genocidal intent of the plan's forging. According to Himmler, the foreign people or *Fremdvolkischen* of the east were considered *Volkssplitter* or people splitters and that, in time the concept of their foreignness will disappear from the people's memory (Ehlich, Meyer, 1940).

2.2.4 Heydrich's Schnellbrief

The *Schnellbrief*, translated as Express or Urgent Letter, was a document delivered to the Einsatzgrüppen Chiefs in September 1939 by *SS-Grüppenführer* Reinhard Heydrich instructing them on the policy and operations regarding the Jewish

population in the Occupied Territories controlled by Nazi Germany. In this document Heydrich addresses the *Endziel* or Final Aim, stressing the secrecy and patience required by those who will incrementally implement this aim.

Although the Endziel is never clearly defined in the document, Heydrich is specific in defining the details required to accomplish the task. The initial direction he emphasizes is to concentrate or transport the Jews who are residing in the rural areas of the occupied territories to the larger cities. These concentration locations were to be established to "facilitate subsequent measures", and they should be in the vicinity of railroad lines or junctions. He also instructs that Jewish communities of less than 500 persons were to be transported to the nearest concentration point.

Heydrich indicates that a Jewish Council or Judenräte was to be established to perform a census delineating the Jewish population by sex, age groups under and over 16 years of age, and by occupation. Once the census was delivered, the Judenrate would be notified of an evacuation date, time, route, and means of transport for the Jewish contingent in their charge. Heydrich emphasized that the reason to be given for movement to the city was that it was recognized that the Jews were responsible for robbery and sniper attacks. Once the Jews were concentrated in the larger cities, they were segregated in ghettos, which they could not leave, and were not permitted from leaving their homes after curfew. Jews involved in industries supporting the German war effort would be allowed to continue in that capacity until further instructed, and all farms under Jewish ownership would be turned over to Polish or German farmers to ensure timely planting and harvesting to again support the war effort.

Heydrich concludes by providing specific instruction to the *Einsatzgrüppen* to continuously report on the Jewish survey count in the areas under their command, in addition to the designated cities that would be used for concentration centers and finally when the Jews would be moved to these locations (Nuernberg Military Tribunal, 1947).

The Nazi ideological origins and spatial theory that were presented in the previous sections provided a glimpse into the mindset of the Third Reich with regards to geopolitical doctrine. The remaining sections will focus on the implementation of this doctrine in Lithuania, and how it impacted the nation's populace at multiple spatial levels.

2.2.5 The Lithuanian Holocaust: From Political Retribution to Racial Genocide
An extensive number of executions related to the Lithuanian Holocaust occurred in 1941 as Nazi forces moved east through the nation toward war in the Soviet heartland. A primary source of the remaining records of these events are maintained at the Lithuanian Central State Archives (LCSA), where Historian Dr. Arūnas Bubnys, working under the auspices of the International Commission for the Evaluation of the Crimes of the Nazi and Soviet Occupation Regimes in Lithuania, performed comprehensive research of these events.

This effort comprised a review of all of Lithuania's 22 counties, however only six counties were researched extensively due to their regional importance and archival material availability. These counties and associated regions (in parenthesis) are as follows; Trakai (Vilnius Region), Kaunas (Central Lithuania), Kretinga (Samogitia), Utena (Upper Lithuania), Vilkaviškis (Suvalkija), and Altyus (Dzūkija).

The primary focus of this research was the extermination of the Jews in identified

Jewish Communities in both city and rural locations, detailing extermination process

sequence of events (i.e., civil rights atrocities, segregation, property seizure, arrests,

ghetto and isolation camp emplacement, mass executions, and post-execution looting).

Particular attention is given to capturing the statistical information of this Holocaust from

the perspective of both the victims and the Nazi collaborators responsible for the actions.

The predominant amount of this body of knowledge is a comprehensive documentation

of the aforementioned categories at the city, town, street, and sometime building level.

The conclusions of this research indicate that the Jewish extermination in

Lithuania during 1941 is divided into two temporal stages. The first stage, from the end

of June to mid-July, and the second stage lasting from the end of July through November.

During the first stage the executions were politically motivated, where enemies of the

Nazi forces, to include Russian, Poles, Lithuanians, and Jews (predominantly men) were

executed based on their shared loyalties and belief systems. The second stage however

moved away from the political emphasis toward one of racial genocide. During this

stage, the majority of the Lithuanian Jews were exterminated. This period was marked

by the creation of ghettos and camps with the sole purpose of isolating the Jewish

population until they could be systematically murdered. Toward the end of this stage, the

executions were carried out in the fields and forests in proximity to the ghettos and camps

by both German officials and local law enforcement (i.e., white-bands). When describing

the spatial and temporal aspects of this Holocaust, the author points out that the early

stages of the massacre occurred in the western portion of the nation that bordered German

controlled regions and moved eastward as time progressed (Bubnys, 2004).

2.2.6 German Manipulation & Lithuanian Complicity in Eliminating Jews
Christoph Dieckman and Saulius Sužiedelis also performed research for the

International Commission for the Evaluation of the Crimes of the Nazi and Soviet

Occupation Regimes in Lithuania focusing on how the Lithuanian paramilitary aided the

occupying German forces.

In order to optimize the use of SS Units in rear echelons of the German Army,

Reinhard Heydrich chief of the Reichsicherheitshauptamt (RSHA) brokered an

agreement with the Quartermaster General Wagner during March and April 1941. This

agreement enabled the *Einsatzgruppen* (Operative Groups) and *Einsatzkommandos*

(Operative Squads) to take necessary actions with regard to civilian population.

On 17 June 1941, Heydrich delivered written orders to Operative Groups (EG)

commanders to initiate discrete pogroms against the Jewish population, and he issued a

secret directive to those under his command to covertly incite attacks on Communists and

their Jewish supporters so as to mitigate the role of German forces in the process. Due to

Lithuania's history of Communist occupation the populace was a ready source of anti-

Communist and anti-Semitic collaborators. Heydrich later provided written orders to

senior SS and Police of the occupied territories to force pogroms of Jews while leaving

no trace that could be attributed to German forces (29 June 1941) and to kill all Jews who

had state and party affiliations (2 July 1941). A priority of the German police was to

legalize its intentions for mass murder with an aim to portray the local non-German

people as initiators of the crimes. This was accomplished in order to prepare historical material for "extreme measures" discussions.

The RSHA was inclined to increase the elimination level of the Jews beyond agreed upon limits of the Wehrmacht and Lithuanian civil authorities to the point of complete extermination. Pogroms were initiated with the intent of killing as many military age Jewish men as possible, while employing local non-German people for their purpose. After Jews of military service age were killed and after killing the head of the family, remaining family soon would be victims too, through extermination, famine, contagious diseases, etc., Himmler stated the main reason, indicating that "not a single 'avenger' may stay alive".

A well known and cited incident held during the first week of the Nazi-Soviet war, is the Lietūkis garage pogrom in Kaunas on 27 June 1941 where Jewish men were viciously targeted and murdered in a savage manner while in a public forum. By late June 1941, killing locations moved from less public venues to more controlled locations such as the Seventh Fort in Kaunas. While actions against Jews during the Lietūkis attack were based on anti-Communist bias, the impetus of a massacre at Vilijampole was to attack Jews for being Jews.

The elimination of Lithuanian Jews in 1941 represented the initial phase of Nazi Germany's *Endlosung* or Final Solution (i.e., the genocide of the Jewish Population). In the process of carrying out these actions, the German forces made the determination that Lithuanian civil authority collaboration was required. This collaborative effort was documented in a directive from Colonel Vytautas Reivytis, the highest ranking police officer

in occupied Lithuania, and Director of the Police Department. This directive, known as Secret Order No. 3, was dated 16 August 1941 and was delivered to the Kaunas District Police Chief for action. The orders defined in this correspondence were to detain men of Jewish nationality and of 15 years of age and older and women who had a history of Bolshevik collaboration. Once detained, these individuals were to be gathered in proximity to main highways, where the number and type of Jews gathered or concentrated would be reported to the Police Department. The directive indicated that the process needed to be accomplished within 48 hours upon receipt, and that the detainees must be guarded pending transport to a camp. The camp referenced in this directive was not identified. Due to the secrecy and subject matter of this directive, copies were maintained by the district police chiefs in order to minimize incriminating evidence.

Although Secret Order No. 3 was signed and directed by Colonel Reivytis, he was operating under the oversight of SS First Lieutenant Joachim Hamann. This directive set in motion the first phase of the Lithuanian Holocaust, which was planned and approved in Berlin, supervised by Einsatzgruppen A, directed by SS Colonel Karl Jäger, and managed by Lieutenant Hamann. Colonel Reivytis's role in the Lithuanian Holocaust was not one of chance. He had a history of supporting German Military Intelligence as an informer, and had received German citizenship a month prior to the dissemination of Secret Order No. 3.

Jewish concentration, as documented in the Reivytis File represents a smaller scale version, set in Lithuania's Jewish populated rural environs, of the much larger planned destruction of the broader Jewish population. Under German and Lithuanian control, small groups of Jews were concentrated in synagogues, schools and other public buildings, while large groups were confined in camps and ghettos.

Although the Reivytis File addresses the method of population concentration and expropriation which would eventually lead to their elimination, it does not address the scale of these elements, as the fate of less than a twentieth of the Jewish population is illustrated in the document. The Reivytis File represents the origins of a formalized, bureaucratic implementation of the Final Solution. It also represents how ordinary men, serving as police officers followed orders and were complicit in the process of genocide (Dieckman and Sužiedelis, 2006).

2.2.7 Vilnius, Wilna, Wilno – Lithuanian Occupation and Collaboration

Lithuania's current capital of Vilnius experienced dramatic upheaval and change during the years preceding, during and after World War II. During the decade from 1939 to 1949, the city fell under the jurisdiction of four different external states to include Poland, the Soviet Union (twice), and Nazi Germany, in addition to periods of self-governance.

During the late 1930's Vilnius was under Polish governance and was referred to by it's Polish derivative of Wilno. The pre-World War II estimated population of the city was approximately 200,000 where the Polish and Jewish communities represented the dominant populations at 66% and 28% respectively. The fact that their capital, as viewed by the Lithuanian nation was under the control of the Poles, and that only a small percentage of Lithuanian comprised the capital's population was a source of tension between the nations.

On August 22nd of 1939, the future of Polish rule in Vilnius became tenuous with the signing of the Ribbentropp-Molotov Pact. This pact, named after the German and Soviet ministers of foreign affairs, was a precursor to the Nazi invasion of Poland and the

threat of war on the European Continent. In early September of 1939, Nazi forces began moving east and by mid-month were threatening Poland's capital of Warsaw. While the Germans attacked Poland's heartland from the west, Polish controlled Wilno was caught off-guard by a Soviet attack from the east leading to a takeover of the city by Soviet forces.

From the perspective of the indigenous residents of Wilno, there were mixed emotion. The Poles feared the return of harsh Soviet rule from only a generation earlier, while the Lithuanians saw the fall of the occupying Polish force to the Soviets as a form of justice and hoped for a return of their capital to Lithuanian control. The Jews viewed the Soviet takeover as preferable to one by Nazi Germany, but still feared the Soviet occupation as a threat to their religion and livelihood.

The Soviet actions to consolidate control in Vilnius were swift and calculating. Politicians, intelligentsia, and businessmen of predominantly Polish descent were deported to camps in the Soviet interior. Under a supplement of the Molotov-Ribbentropp Pact, Lithuania briefly gained control of Vilnius with the provision of allowing Soviet forces to be stationed on their soil. This pact ended badly for Lithuania in that they eventually lost their independence and became part of the Soviet Union on August 3rd 1940. At that point, Lithuania began a point of Sovietization where Soviet influence was incorporated into all aspects of Lithuanian life, to include the addition of architecture, street names and academics that reflected Soviet culture, and the exclusion of theological studies which were counter to the Soviet belief system.

This process of Sovietization was short lived as one year later, on June 22nd of 1941, Nazi Germany went on the attack against Soviet forces. The city of Vilnius saw it's Lithuanian soldiers break from the Soviet army and fight with the Nazi forces. The German Luftwaffe bombed Vilnius for two days and on June 24th German ground forces marched into and occupied Vilnius.

During this period of occupation, the Nazi force treatment of the indigenous population of Vilnius varied dramatically. The Lithuanians were treated preferentially, while the Poles were looked upon with disdain. The Jews however were treated the most poorly, as ghettos to segregate them from other members of society were established early under Nazi rule.

Empowered by their new found status, some Lithuanians repressed the Polish community and were complicit in exterminating the Jews. Reports corroborating these events were documented by the Lithuanian security forces indicating that emphasis should be placed on killing or detaining in labor camps the communists and their Jewish sympathizers. Lithuanians also joined forces with the Germans in establishing a newspaper entitled Naujoji Lietuva or "New Lithuania" that espoused the Nazi ideology and denounced all things Soviet, while blaming Jews at every turn. It should be noted that, although some Lithuanians supported the Nazi occupation force, there were others who opposed their actions.

As the preceding Soviet rule in Lithuania was short lived, so went the Nazi rule, and by 1943 the Soviet forces defeated the Germans at Stalingrad and shifted the

momentum back to the Soviets. This shift in power eventually led to the reestablishment

of a Soviet state in Lithuania (Weeks, 2006).

2.2.8 Vilnius and the 1942 Census

In May of 1942, a census of the city of Vilnius was performed by the German

occupying forces that revealed dramatic changes regarding the ethnic composition of the

city. The results of this census did not receive wide dissemination during World War II,

and the document's review was restricted during Soviet control of Lithuania from 1944 to

1991. Once available for research, some observations were made that brought into

question the documents accuracy. For example, the Jewish population in Vilnius was

excluded from the census. This is likely due to the German's confidence that all Jews in

the city were or would soon be eradicated. Another element speaking to the inaccuracy

of the census was the lack of cooperation from the other non-Lithuanian residents of the

city to complete the census. Since there was known or expected collusion between the

Lithuanian census takers and the German occupying force, the lack of cooperation could

be expected. Also, since the census takers were made up of the city's Lithuanian

population, there could have been skepticism regarding conflicting intent of the census

between the Lithuanian administrators and the Germans overseeing the process. Of the

questionable census results noted, the absence of all Jewish residents is the most

troubling. This dramatic decline is even more stark when compared to the Polish census

of 1931 and the Lithuanian census of 1940 which accounted for 54,596 and 58,263

Jewish citizens respectively.

Reviewing the events of the German Occupation in 1941 Vilnius is instructive in order to better understand the gravity of the lack of accounting of any Jews in Vilnius in 1942. Upon their arrival in the city, the Nazi forces implemented plans to segregate the Jewish population from other ethnic groups by creating two ghettos in the city's Jewish Quarter in addition to establishing isolation camps where Jews were exterminated en masse. Ponary near Vilnius was home to such a camp where an estimated 60,000 Jews and other ethnic groups met their end at the camp and in its surrounding forest.

The murder of Jews while confined in the Vilnius Ghettos near Rudnicka Street was documented by Standartenfuhrer Karl Jäger in his report that details the murder of 137,346 Jewish men, women, and children throughout Lithuania. When Jäger delivered his report in early December 1941 to higher headquarters in Berlin, he indicated that an estimated 15,000 Jews still remained in Vilnius. The subsequent Heller Report from May 1942 is similar to the Jäger Report in it's estimation of a reduction to 15,000 from the 60,000 Jews residing in the Vilnius Ghettos. Other researchers estimates indicate that the number of survivors would have been closer to 20,000, while the author's estimate is 23,000 (Winston, 2006).

2.2.9 The Nuernberg Military Tribunal – The Einsatzgruppen Case
The actions perpetrated by the Einsatzgruppen during World War II were played out on the world stage during the Nuernberg Trials in 1947. The indictment associated with this case levied charges of crimes against humanity, war crimes and membership in criminal organizations against 24 officers ranging in rank from general to junior officer.

The sentences for the 21 officers found guilty ranged from 10 years imprisonment to death by hanging (Nuernberg Military Tribunal, 1947).

2.3 Chapter Review

This chapter focused on two main areas; the first area provided a basic foundation for understanding the importance of toponyms with relation to geography, and also addressed the unique structure and challenges associated with the Lithuanian language. The second area reviewed the cultural and geohistorical factors that provide background and context to the discussion. The following chapter will examine and describe data sources that will be used to examine toponym deviation and it's impact to georeferencing and spatial association.

CHAPTER THREE: DATA DESCRIPTION

3.0 Chapter Overview

The previous chapter provided ideological background integral to understanding how the actions associated with the Jäger Report occurred. A key element to this ideology was that military goals were viewed through the Nazi spatial spectrum, where all occupied lands were viewed in the Nazi vernacular and conquered lands are often renamed. This toponym deviation can lead to spatial reference inaccuracy.

This chapter will describe the baseline data source of this thesis, which is the Jäger Report, where emphasis will be placed on toponyms identified in the report. This historical Holocaust document, was introduced in Chapter 1, and discussed briefly in Chapter 2. As part of the description of the data, time will be dedicated to examining what data the report provides in addition to what data could be discovered through various supplemental data sources in order to enable a clearer understanding of the report's geo-historical significance. The following supplemental data sources that will be described include: World War II era maps; the National Geospatial Intelligence Agency's GEONet Names Server; the Lithuanian Holocaust Atlas., and the Lo Tishkach Foundation European Jewish Cemeteries Initiative Database.

3.1 The Jäger Report – A Horrific Snapshot in Time

The Jäger Report clinically chronicled the execution of 137,346 people at over 70 locations over the span of five months in 1941. The place names associated with this report are listed in Table 1. Examining the report at face value it is apparent that it contains structure and has spatial, temporal, and contextual elements and some basic quantitative assessments can be accomplished. For example, the categories that Jäger meticulously documented were the event dates, location, ethnic group or association by number, gender, age group (adult or child), and overall number by location.

Table 1: Jäger Report Toponyms

Aglona	Jesuas	Obeliai	Svenciany
Agriogala	Jonava	Panevezys	Trakai
Alytus	Joniskia	Pasvalys	Ukmerge
Babtei	Kaisiadorys	Petrasiunai	Utena
Bischolin	Kauen Fort IV	Pleschnitza	Moletai
Bober	Kauen Fort VII	Pravenischkis	Uzda
Butrimonys	Kauen Fort IX	Prienai	Uzusalis
Carliava	Kedainiai	Rasainiai	Varena
Cekiske	Krakes	Riess	Velinona
Dagda	Kraslawa	Rokiskis	Wendziogala
Darsuniskis	Kreis Rasainiai	Rumsiskis &	Wilkia
Dünaburg	Lazdijai	Ziezmariai	Wilkowisksi
Eysisky	Leipalingis	Scak	Wilna Stadt
Georgenburg	Mariampole	Seduva	Zagare
Girkalinei	Merkine	Seirijai	Zapiskis
Jahiunai	Nemencing	Semiliski	Zarasai
Jasvaniai	Novo-Wilejka	Seredsius	
		Simnas	

Under closer scrutiny, the following additional details emerge from the report that refine our understanding of events surrounding the Jäger Report: There was a systematic extermination of specified ethnic groups in Lithuania by Nazi German Special Forces; The primary ethnic group targeted during this effort were the Jewish population however, Poles, Russians, Lithuanians, and others were also eliminated; Over the course of five months in 1941, from July-November 1941, 137,346 people, to include men, women and children were murdered during 118 events at over 70 locations in Lithuania and the Baltic Region.

Delving even further into the report, greater specificity can be achieved. For example; of the 118 events, the two locations with the highest elimination rates were Wilna at 21,189, and Kauen's three forts (IV, VII, IX) at 23,203 accounting for 44,392 persons, or nearly one third of the total documented. Other locations with high counts were Dunanburg (9,606), Panevezys (8,837), Ukmerge (6,356), and Mariampole (5,328).

Up to this point these details, specifically the German toponyms, encompass what could be categorized as known information. What is unknown is where those toponyms were located (i.e., georeferenced) and what associations they might have with other locations, and can those locations be georeferenced. In order to know this information, it follows that procedures using additional data sources would need to be implemented. Potential data sources will be described and examined in the following section.

3.2 German and Lithuanian Historical Maps

The following maps were chosen as supplementary sources of information for the Jäger Report because they represent both the German and Lithuanian representation of

the World War II era when the actions of the Jäger Report occurred and they also

illustrate themes associated with the report, such as Nazi German encroachment and

occupation, Holocaust events, and the German administrative delineation of Lithuania.

3.2.1 Lietuvos Respublika 1939 – 1940.VI.15

The title of this map (Figure 2) translates to *Lithuanian Republic (1939 – 1940,*

July 15). The legend identifies Nazi Germany occupation in the Klaipedos Region of the

country which is located in the western portion of the country bordering the Baltic Sea.

The toponyms designated on this map are in Lithuanian.
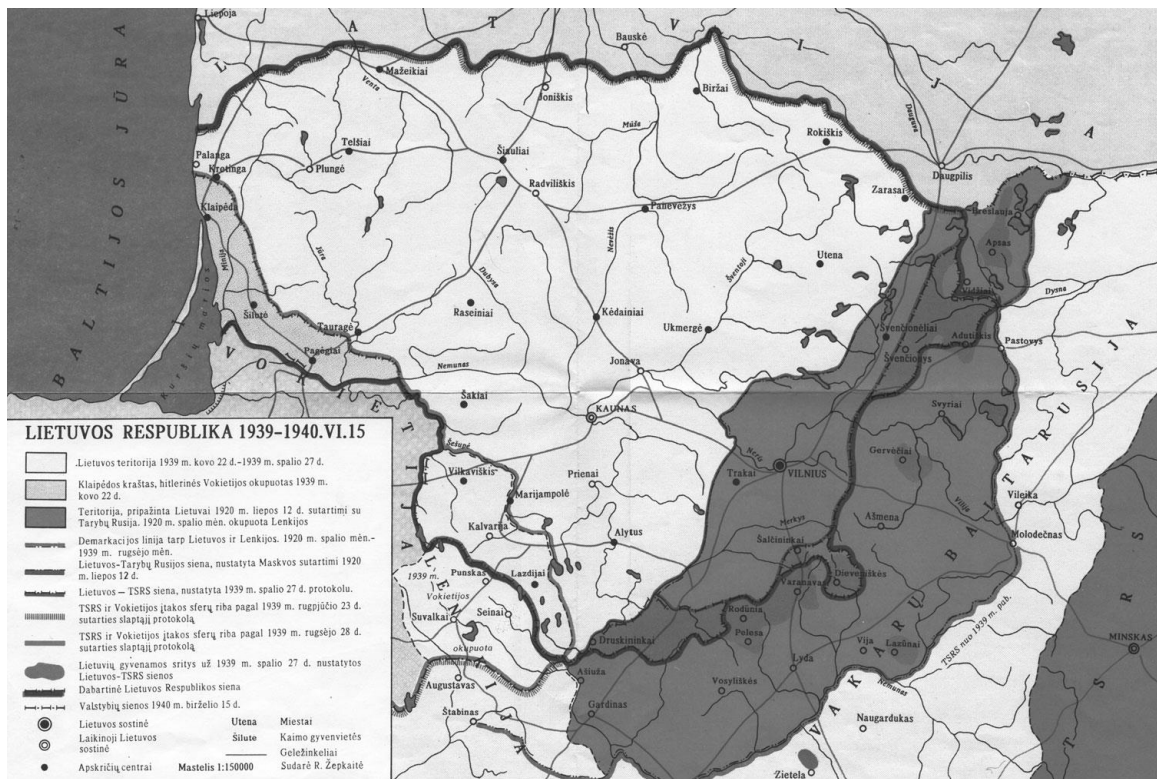
Figure 2: Lithuanian Republic (1939 - 1940, July 15)

Nazi German occupation and offensive movement within the country. The toponyms

designated on this map are in Lithuanian.
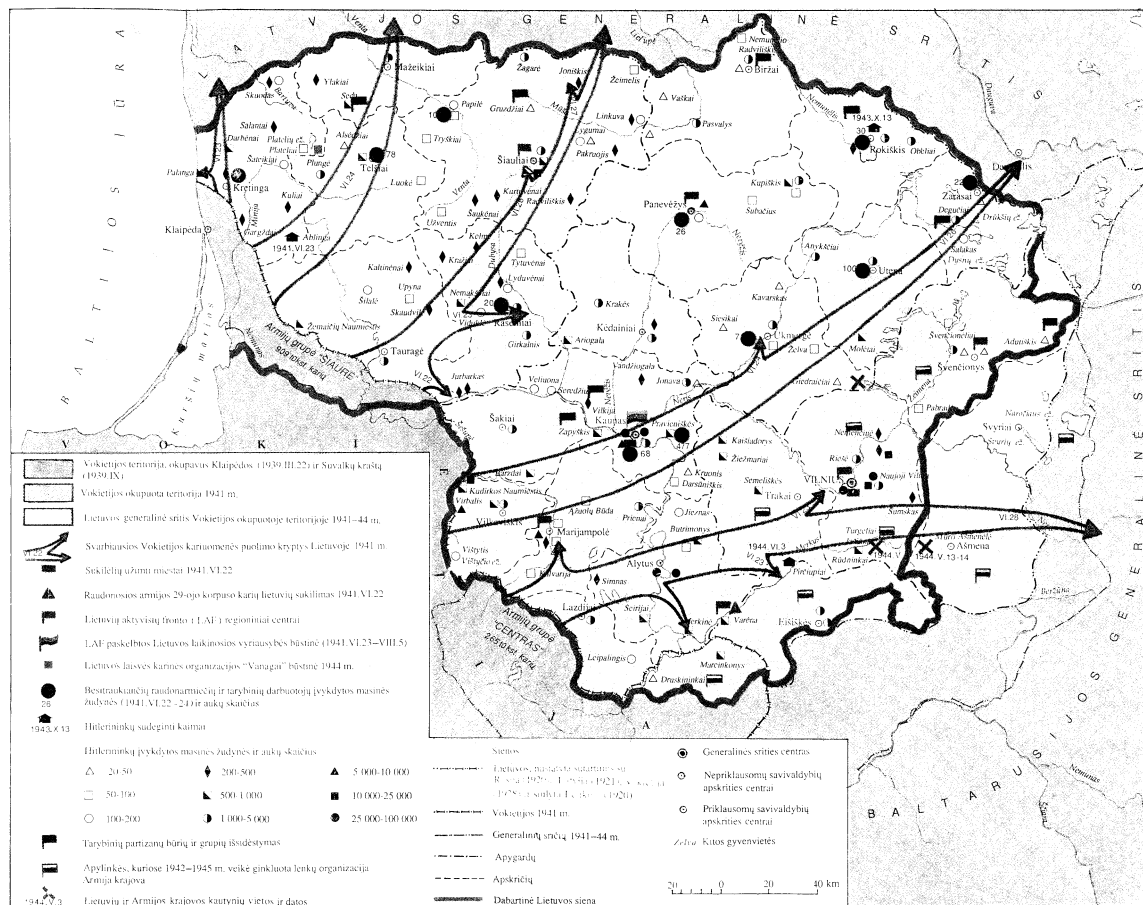
Figure 3: The Nazi Regime in Lithuania (June 22, 1941 – July 8, 1944)

3.2.3 Holokaustas Lietuvoje 1941 – 1944 Metais

The title of this map (Figure 4) translates to *The Holocaust in Lithuania 1941 –*

1944. The legend identifies Lithuanian city and town population, locations where Jews

lived during the Nazi occupation and also the number of Jews slain in those locations.

The toponyms designated on this map are in Lithuanian.

Figure 4: The Holocaust in Lithuania 1941 – 1944

3.2.4 German Verwaltungskarte Des Generalbezirks Litauen

The title of this map translates to *Administrative Map Of General District of Lithuania.* This map is an online reference and has an accompanying toponym chart. The map and chart illustrate a precisely defined deliniation of 25 districts, each with a listing of subordinate locations totaling 289 locations. The toponyms designated on this map are in both German and Lithuanian.

3.3 The National Geospatial-Intelligence Agency's GEONet Names Server (GNS)

The GNS is an online repository that enables access to foreign geographic place names and associated variant spellings in both Roman and non-Roman script. In addition

to the toponym information, the GNS also provides location data (i.e., geocoordinates), and location hierarchical information. The GNS interface allows search and viewing in both graphical (map) and textual format.

Regarding spatial accuracy, it is stated at the GNS webpage that the *"feature coordinates are approximate and are intended for finding purposes."* This being the case, the coordinates found in the GNS will not be expected to define precise locations, only to provide a spatial point of reference aligned with the associated toponym.

Initial testing of this data source using the translated Jäger Report toponyms revealed two data output issues. The first issue concerned intermittent data access. For example, the same query could be run with identical search criteria and sometimes the query would time out. The second issue dealt with the use of filters, where it was determined that under identical querying parameters, different results would occur.

3.4 The Lithuanian Holocaust Atlas

This educational data source is a Lithuanian and Austrian collaborative effort of the Vilna Gaon State Jewish Museum and the *Verein Gedenkdienst* (Club Memorial Service). The atlas is a comprehensive database on all the Lithuanian mass murder sites, bringing together information from disparate data sources and archives into one consolidated location. This database has a search functionality that enables queries by keyword, location, date and by perpetrator.

Initial testing of this data source using the translated Jäger Report toponyms revealed a query limitation. Since this data source focuses on Holocaust events that took place in Lithuania, the keyword and location queries require verbatim or near verbatim

input using the Lithuanian toponym or term or the query reply will indicate that no sites were found. This could indicate that the toponym variant used in the query was too divergent.

3.5 Lo Tishkach Foundation European Jewish Cemeteries Initiative

The Lo Tishkach Foundation maintains a database of approximately 11,000 records associated with Jewish Cemeteries and Mass Graves on the European Continent. During the research process, it was determined that some of the locations listed in the Jäger Report were located in Latvia. As a result, the Lo Tishkach data source was used to verify toponym and coordinate information for this country. The database interface enabled efficient retrieval of this information.

3.6 Chapter Review

This chapter examined the primary and supporting data that will be used in this thesis. The Jäger Report, and it's associated toponyms are the research focal point, and time was spent examining what the report contained, which can be classified as known information, and also how supporting data in the form of historical maps, gazetteers and specialized data bases could be leveraged to help determine unknowns such as locational information and spatial associations.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.0 Chapter Overview

The methodology for this thesis has six phases, all of which are elemental in answering the research focus of determining how toponym deviation can impede georeferencing and spatial association. Phase 1 focuses on data preparation using the Jäger Report toponym baseline information to establish a methodology matrix. Phase 2 will focus on cross-referencing and translating the German toponyms from the first phase into the Lithuanian variant using the historical maps described in the previous chapter. As part of this phase, a review of the maps will be needed to determine which source will be the most appropriate for the cross-referencing process. Phase 3 will use the cross-referenced and translated toponyms from the previous phase and using the NGA GNS Gazetteer to identify geocoordinates for the Lithuanian Toponyms. Phase 4 will use the translated toponym with its geocoordinate to query the Lithuanian Holocaust Atlas to determine if the place name and georeference are consistent with the information discovered in the previous phase. Phase 5 will focus on determining if there are spatial associations that can be identified using Phase 4 data. The information from all phases will be captured in a deviation matrix for further analysis and implementation of metrics as part of Phase 6. These metrics will be defined in the following phase process steps.

4.1 Phase 1: Data Matrix Preparation

This phase consists of defining and establishing a working matrix to capture the baseline German variant toponyms from the Jäger Report and all supporting data that will be discovered in the following phases. When all the information has been captured in the matrix, then metrics will be applied to determine to what degree toponym deviation impacted the processes of georeferencing and spatial association. The following deviation determination matrix (Table 2) identifies the phase task, data source and deviation metrics that will be implemented. The structure of this matrix will be leveraged in building a deviation results matrix that will be discussed in the following chapter. A more comprehensive phase process sequence will be provided in the following sections.

Table 2: Deviation Determination Matrix - Tasks, Data Sources and Deviation Metrics

Phase #	1	2	3	4	5
Task A	List German Toponyms	Translate Toponyms into Lithuanian	Identify & List Toponyms and Coordinates	Verify Toponyms and Coordinates	Identify Spatial Associations
Task B	None	Align Translated Toponyms with Phase 1 Variant	Align Toponym Coordinates with Phase 1 and 2 Data	Align Identified Toponym and Coordinate Deviations with Phase 1-3 Data	Align Any Spatial Associations with Phase 1-4 Data
Data Source	Jäger Report	Historical Map	NGA GNS	Lithuanian Holocaust Atlas, Lo Tishkach Database	Lithuanian Holocaust Atlas
Deviation Metric(s)	None	Determine the number of toponyms with variations in spelling and/or	None	Determine the number of Toponym and/or Coordinate	Determine the number of toponyms with spatial associations

		diacritics		Deviations	

4.2 Phase 2: Toponym Cross-Referencing and Translation With Historical Maps

Although the actions identified in the Jäger Report occurred in occupied

Lithuania, the place names listed in the report are in the German language. As a result,

the toponyms require an initial cross-referencing with another data source to determine

the Lithuanian variant of the place name.

The data source that will be used for this process are historical maps that represent

the time period when the Jäger Report took place. In the previous chapter, four historical

maps were described, and the common denominator in all four sources was that they all

contained Lithuanian Toponyms. This being the case, a determination was required to

choose the best alternative.

It was determined that the best historical map for this cross-referencing and

translation phase was the German Administrative Map Of General District of Lithuania

(*Verwaltungskarte Des Generalbezirks Litauen)*. The reason for this choice was twofold;

first this map contains both German and Lithuanian Toponyms, and second, the map has

an accompanying table which identifies Lithuanian Districts and associated locations that

fell under the jurisdiction of these districts. Since this will be a manual cross-referencing

process, it will be more efficient and less time consuming to utilize a data source that

contains toponyms in both German and Lithuanian languages.

Even though this data source was assessed to include Lithuanian Toponyms that include diacritics, or accents associated with the languages alphabet, a potential drawback to using this source is that, like the Jäger Report, it is a German representation of Lithuanian Toponyms, which could indicate some level of deviation. If during the cross-referencing and translation process, it becomes apparent that an inordinate level of deviation is occurring, then another historical map will be used to complete the process. The following table (Table 3) defines the steps of this process sequence.

Table 3: Toponym Cross-Referencing & Translation Process

Phase 2 Process Steps: Historical Map Review	
1	Examine the following historical maps to translate German toponyms into the Lithuanian language: *Primary*: German Administrative Map Of General District of Lithuania *Supplementary*: Additional historical maps identified in Chapter 3 (as needed)
2	Align Translated Toponyms with Phase 1 Variant (Jäger Report baseline toponym)

4.3 Phase 3: Translated Toponym Georeferencing

This phase will be accomplished by utilizing the National Geospatial-Intelligence Agency's (NGA) Geospatial Names Server (GNS) which, as described in Chapter Three is a gazetteer that enables place name and geocoordinate discovery. After a review of the GNS functionality, it was determined that optimum data output performance required a

specific process sequence. This being the case, the following table (Table 4) defines the

steps of this sequence.

Table 4: Toponym Georeferencing Process

	Phase 3 Process Steps: NGA GeoNET Names Server (GNS) Utilization
1	Access the NGA GNS Homepage at http://earth-info.nga.mil/gns/html/index.html
2	Select the GNS Search – Text Based Page
3	Data Filter 1: Country Name option panel, select "*Lithuania*"
4	Data Filter 2: Input Search String, select "*With Diacritics*"
5	Data Filter 3: Return Selected Names Type(s), select "*Approved*"
6	Open the Features Designation section
7	Data Filter 4: Features Designation, Administrative Region section, select "ADM1*, "Primary Administrative Division*" or Populated Places "PPL *Populated Places*"
8	Run Query
9	Data Output = **Name (Type) [Approved]**; Geopolitical Entity Name (Code) [Lithuania (LH)]; First-Order Administrative Division Name (Code) [Multiple]; **Latitude, Longitude DMS (DD) [Degree, Minute, Second and Decimal Degree];** MGRS (Military Grid Reference System) [Alpha-Numeric Designator]; Feature Designation (Code) [populate place (PPL)]; and Display Location Using [Google Maps, Mapquest] Options. [**Required data elements in bold type**]
10	Identify and list all toponyms and associated geocoordinates
11	Align toponym and geocoordinates with Phase 1 & 2 Data in the Deviation Matrix

4.4 Phase 4: Georeferenced Toponym Verification

Verifying toponym georeferencing will be accomplished using the Lithuanian

Holocaust Atlas. A verification step using this online atlas was incorporated into this

methodology because it provides additional nominal and spatial fidelity to the place name

and associated geocoordinates. The following table (Table 5) defines the steps of this

process sequence.

Table 5: Georeferenced Toponym Verification Process

Phase 4 Process Steps: Lithuanian Holocaust Atlas Utilization – Toponym & Geocoordinate (NOTE: Lo Tishkach Database of Jewish Cemeteries & Mass Graves was used to locate toponym and coordinate information related to Latvian locations)	
1	Access the Lithuanian Holocaust Atlas Homepage at http://holocaustatlas.lt/EN/
2	Data Input – Place the toponym (to include diacritics) identified in Process One (Translation) into the Advanced Search "By Location" option box
3	Run Query
4	Data Output = Title, Abbreviated Text, Time-line, and Elimination Count
5	Match the Elimination Count and/or the Date Information listed in the Jäger Report with the Lithuanian Holocaust Atlas record
6	Select the identified record
7	From the Full Text Data output, identify and verify Toponym and Geocoordinate [Decimal Degrees] data
8	Align Any Identified Toponym and Coordinate Deviations with Phase 1-3 Data in the Deviation Matrix

4.5 Phase 5: Spatial Association Discovery and Definition

Discovering spatial associations will also be accomplished utilizing the

Lithuanian Holocaust Atlas. The term spatial association can be identified as a location

that is in some way related to another location. For the purpose of this methodology, a

more precise definition is required. A spatial association is a specific location identified

by a toponym and is or can be georeferenced. These locations are directly linked to the

locations identified in the Jäger Report and represent a chain of custody for the people

that are attached to the place. For example, from a Holocaust event perspective, a spatial

association can be an origin point, a point of population concentration, or a terminus

point. The following table (Table 6) defines the steps of this process sequence.

Table 6: Spatial Association Discovery and Definition Process

Phase 5 Process Steps: Lithuanian Holocaust Atlas Utilization – Spatial Association	
1	Follow step 1-6 from the previous process
2	Identify Spatial Associations
3	Align Any Spatial Associations with Phase 1-4 Data

4.6 Data Evaluation

The final phase of this methodology focuses on evaluating the data captured in the

deviation matrix. For this purpose, a simple quantitative method will be utilized. For the

toponym deviation a scale from zero to two will be used where a score of zero (0)

indicates no deviation, one (1) indicates minor deviation, and two (2) indicates major

deviation. The discriminator for category one is a difference in spelling from German to

Lithuanian, and a category two would reveal a spelling difference to include diacritics.

From a toponym research perspective, two examples of a major deviation would

be when the first letter of the toponym is different, or when that letter has an

accompanying diacritic. The second example is relevant because this first letter with

diacritic may not fall within the same letter sequence due to Lithuania's unique alphabet.

Regarding location deviation, a similar numerical scale indicating no, minor and major deviation will be used, where a score of zero (0) indicates no deviation, one (1) indicates minor deviation, and two or greater (> or = 2) indicates major deviation. As indicated earlier, the geocoordinate measure is decimal degrees. A minor discriminator would be a coordinate deviation to the right of the decimal place, and a major discriminator would be a deviation to the left of the decimal place.

Once a location deviation was assessed, the next step was to determine the distance associated with that deviation. For this purpose, a simple scoring schema was developed where a minor deviation between the two coordinate sets would be < 1km and score zero (0); a moderate deviation would be > 1km and < 5km and score one (1); and a major deviation would be > 5km and would score two (2).

The evaluation criteria for discovering spatial associations found in the Lithuanian Holocaust Atlas is binary, where any association found would equate to a one (1), and no discovered associations would equate to a zero (0). By utilizing this simple quantitative method to assess the data sets captured in the deviation matrix (Table 7), a basic understanding of the degree toponym deviation can impact the georeferencing and spatial association process can be achieved.

Table 7: Notional Deviation Matrix

| | | No Deviation | | | Count by Location |
| | | Minor Deviation | | | |
		Major Deviation			
	1	**2**	**3**	**4**	**5**
#	**German Toponyms** *Jäger Report*	**Lithuanian Toponyms** *German Administrative Map - General District of Lithuania*	**Toponyms & Coordinates (DD)** *NGA GeoNET Name Server (ADM1 - PPL)*	**Toponyms & Coordinates (DD)** *Lithuanian Holocaust Atlas or Lo Tishkach Database*	**Spatial Associations** *Lithuanian Holocaust Atlas*
1	Toponym	Toponym (#)	Toponym (#) (ADM1) __.____ N (#) __.____ E (#)	Toponym (#) (ADM1) __.____ N (#) __.____ E (#)	(#)

4.7 Chapter Review

The research methodology discussed in this chapter brought together a structure to gauge the degree toponym deviation impacted georeferencing and spatial association with relation to the geohistorical region of study of this thesis. This structure included defining a six phase process to translate linguistically disparate data using historic maps; georeferencing that data using a specialized gazetteer; verifying the data while defining spatial associations using a specialized database; and finally implementing a simple quantitative scoring method within the construct of the deviation matrix. The following chapter will focus on assessing the results gleaned from the structure of this methodology.

CHAPTER FIVE: RESEARCH RESULTS AND DISCUSSION

5.0 Chapter Overview

This chapter will utilize the deviation matrix and it's associate procedures that were discussed in the previous chapter to illustrate the degree of toponym and spatial deviation and also to identify spatial associations. As points of reference Table 8 and Figure 5 provide a listing of toponyms identified in the Jäger Report and also a spatial representation of the dispersal of those locations within Lithuania, Latvia and Belarus. A high-level matrix (Table 9) will be used to review the results captured in the more comprehensive deviation matrix (Table 10). Following the review of the research results, areas will be discussed that will focus on observations made while implementing the aforementioned procedures.

Table 8: Jäger Report Toponyms – German Language Variant

Aglona	Jesuas	Obeliai	Svenciany
Agriogala	Jonava	Panevezys	Trakai
Alytus	Joniskia	Pasvalys	Ukmerge
Babtei	Kaisiadorys	Petrasiunai	Utena
Bischolin	Kauen Fort IV	Pleschnitza	Moletai
Bober	Kauen Fort VII	Pravenischkis	Uzda
Butrimonys	Kauen Fort IX	Prienai	Uzusalis
Carliava	Kedainiai	Rasainiai	Varena
Cekiske	Krakes	Riess	Velinona
Dagda	Kraslawa	Rokiskis	Wendziogala
Darsuniskis	Kreis Rasainiai	Rumsiskis &	Wilkia
Dünaburg	Lazdijai	Ziezmariai	Wilkowisksi
Eysisky	Leipalingis	Scak	Wilna Stadt
Georgenburg	Mariampole	Seduva	Zagare

Girkalinei	Merkine	Seirijai	Zapiskis
Jahiunai	Nemencing	Semiliski	Zarasai
Jasvaniai	Novo-Wilejka	Seredsius	
		Simnas	

Event Locations, from NGA-GNS, with 2014 boundaries

Figure 5: Jäger Report Location Representation (Determined Utilizing NGA GNS Geocoordinates)

5.1 Research Results

Sixty-five German toponyms (Kaunen and Rasainia repeated) that represented

historical Holocaust related locations in Lithuania were assessed as part of this research

to determine if their deviation could potentially impact the processes of georeferencing

and spatial association. For the geocoordinate deviation and spatial association

assessment, sixty-eight locations were examined. The following table (Table 9) will be

instructive in visualizing the results of this examination.

Table 9: Toponym & Geocoordinate Deviation, and Spatial Association Matrix

Toponym German Variant	Toponym Lithuanian, Latvian, or Belorussian Variant	Toponym Deviation	Geocoordinate Deviation	Spatial Association
Aglona	Aglonas Novads (1)	1	2	Additional sources required
Agriogala	Ariogala (1)	1	2	1
Alytus	Alytus (0)	0	2	1
Babtei	Babtai (1)	1	2	1
Bischolin	Possible Belorussian Toponym	*	Unknown	Additional sources required
Bober	Possible Belorussian Toponym	*	Unknown	Additional sources required
Butrimonys	Butrimonys (0)	0	1	1
Carliava	Garliava (1)	1	1	1
Cekiske	Čekiškė (2)	2	2	1
Dagda	Dagdas Novads (1)	1	2	Additional sources required
Darsuniskis	Darsūniškis (2)	2	2	1
Dünaburg	Daugavpils (2)	2	2	Additional sources required
Eysisky	Eišiškės (2)	2	1	1
Georgenburg	Jurbarkas (2)	2	2	1
Girkalinei	Girkalnis (1)	1	1	1

44

Jahiunai	Jašiūnai (2)	2	2	0
Jasvaniai	Josvainiai (1)	1	1	1
Jesuas	Jieznas (1)	1	1	1
Jonava	Jonava (0)	0	2	1
Joniskia	Joniškis (2)	2	1	1
Kaisiadorys	Kaišiadorys (2)	2	0	1
Kauen Fort IV	Kaunas (1)	1	3	1
Kauen Fort VII	Kaunas (1)	1	3	1
Kauen Fort IX	Kaunas (1)	1	3	1
Kedainiai	Kėdainiai (2)	2	1	1
Krakes	Krakės (2)	2	0	1
Kraslawa	Krāslavas Novads (2)	2	2	Additional sources required
Kreis Rasainiai	Raseiniai (0)	0	1	1
Lazdijai	Lazdijai (0)	0	2	1
Leipalingis	Leipalingis (0)	0	0	1
Mariampole	Marijampolė (2)	2	1	1
Merkine	Merkinė (2)	2	3	1
Moletai	Molėtai (2)	2	1	1
Nemencing	Nemenčinė (2)	2	0	1
Novo-Wilejka	Naujoji Vilnia (1)	1	1	1
Obeliai	Obeliai (0)	0	1	1
Panevezys	Panevėžys (2)	2	2	1
Pasvalys	Pasvalys (0)	0	2	1
Petrasiunai	Petrašiūnai (2)	2	Unknown	Additional sources required
Pleschnitza	Possible Belorussian Toponym	*	Unknown	Additional sources required
Pravenischkis	Pravieniškės (2)	2	0	1

Prienai	Prienai (0)	0	3	1
Rasainiai	Raseiniai (0)	0	1	1
Riess	Riešė (2)	2	1	1
Rokiskis	Rokiškis (2)	2	2	1
Rumsiskis	Rumšiškės (2)	2	1	1
Scak	Possible Belorussian Toponym	*	Unknown	Additional sources required
Seduva	Šeduva (2)	2	2	1
Seirijai	Seirijai (0)	0	2	1
Semiliski	Semeliškės (2)	2	0	1
Seredsius	Seredžius (2)	2	2	1
Simnas	Simnas (0)	0	1	0
Svenciany	Švenčionys (2)	2	2	1
Trakai	Trakai (0)	0	2	1
Ukmerge	Ukmergė (2)	2	2	1
Utena	Utena (0)	0	0	1
Uzda	Uzda (0)	0	Unknown	Additional sources required
Uzusalis	Užusaliai (2)	2	Unknown	Additional sources required
Varena	Varėna (2)	2	1	1
Velinona	Veliuona (1)	1	Unknown	Additional sources required
Wendziogala	Vandžiogala (2)	2	0	0
Wilkia	Vilkija (1)	1	2	1
Wilkowisksi	Vilkaviškis (2)	2	1	1
Wilna Stadt	Vilnius (1)	1	2	1
Zagare	Žagarė (2)	2	2	1
Zapiskis	Zapyškis (2)	2	2	1

Zarasai	Zarasai (0)	0	3	1
Ziezmariai	Žiežmariai (2)	2	1	1

5.1.1 Toponym Deviation

Of the 65 toponyms assessed, fifteen (15) had no deviation with a score of zero (0); thirteen (13) had a a minor deviation with a score of one (1); thirty-three (33) had a major deviation with a score of 2; and the deviation of four (4) could not be discerned due to being a non-Lithuanian or Latvian toponym (i.e., possible Belorussian toponym) or the location was not recognized when querying the data sources.

5.1.2 Geocoordinate Deviation

Of the 68 decimal degree coordinate comparisons assessed, eight (8) had no deviation with a score of zero (0); twenty (20) had a a minor deviation with a score of one (1); thirty-two (32) had a major deviation with a score of two (2 [26]) or three (3 [6]); and the geocoordinate deviation of four (4) locations could not be discerned due to being a non-Lithuanian or Latvian location (i.e., possible Belorussian location) or the location was not recognized when querying the data sources.

5.1.3 Spatial Associations

Of the 65 assessments of spatial association performed using the locational record context, three (3) had no discernable spatial association with a score of zero (0), while fifty (50) showed indication of spatial association with a score of two (2). Twelve (12) of the locations could not be assessed and scored due to database record content.

5.2 Discussion

The following discussion will examine the three result components; toponym and geocoordinate deviation and spatial association, and provide some additional observations related to these areas.

5.2.1 Toponym Deviation

The Literature Review section of this thesis indicated that the there was a national consensus to develop and maintain an alphabet and language unique to Lithuania. This unique aspect of the language had an impact on the assessment process in that some toponyms were readily discernable in that, sans diacritics, some place names where identical. There were certain instances, however when some toponyms required additional time and research to ensure the correct name was being aligned with it's German variant. Examples of this challenge were the German place names of Georgenburg and Jesuas and their respective Lithuanian counterparts of Jubarkas and Jieznas.

5.2.2 Geocoordinate Deviation

While going through the geocoordinate deviation assessment process, it became clear that the spatial deviation between NGA GeoNET and Lithuanian Holocaust Atlas coordinates merely indicated a distance between two points; one arbitrary, based on only a place name; the other precise in that it indicated the representative terminus of what the Jäger Report repesented. As a result the coarse viewpoint provided by the scoring schema was insufficient. In order to provide additional fidelity to the geocoordinate deviation process, it was determined that a distance measurement between the two data sets would be implemented. Figure 6 provides the Geographic Information System (GIS)

visualization of this additional level of spatial fidelity. Using the scoring schema described in Chapter 4, i.e., minor deviation between the two coordinate sets would be < 1km and score zero (0); a moderate deviation would be > 1km and < 5km and score one (1); and a major deviation would be > 5km and would score two (2), the scores were as follows: Minor Deviation (0) = sixty-one (61) Moderate Deviation (1) = two (2); and Major Deviation (2) = one (1) covering sixty-four (64) locations. The remaining four (4) locations could not be assessed due to insufficient data. The full data set associated with this process can be reviewed in Appendix B.
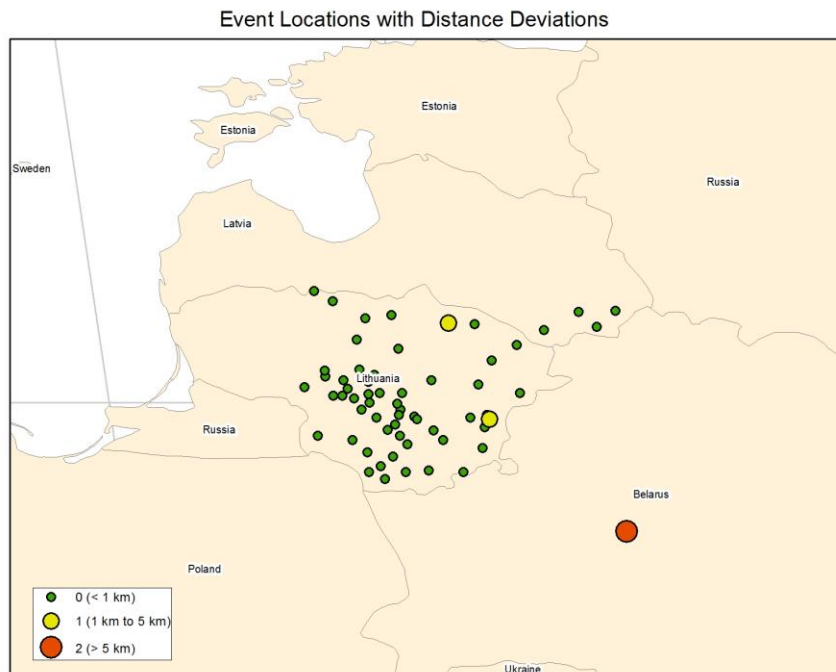
Figure 6: Geocoordinate Distance Deviation Representation

5.2.3 Spatial Associations

Through utilizing the Lithuanian Holocaust Atlas, spatial associations in the form of population movement and concentration were illustrated. The metrics implemented in the deviation matrix only provided a course indication of these elements. It would be beneficial to incorporate this spatial context into future research efforts. It should be noted that in the course of reviewing the Lithuanian Holocaust Atlas records, forty-eight (48) instances of direct references to the Jager Report were discovered where both temporal (event date) and cultural (population elimination count) were discussed.

5.3 Chapter Review

This chapter implemented the methodology defined in chapter four in order to determine toponym and geocoordinate deviation and spatial associations using the data sources defined in chapter three. Data tables were used to illustrate both the data and criteria used in the process. This was followed by a discussion evaluating the process. The following final chapter will summarize the work performed in this thesis, provide conclusions to said work, and offer avenues for additional research.

Table 10: Deviation Matrix

#	1	2	3	4	5
			No Deviation = Zero (0)		**Association**
			Minor Deviation = One (1)		**0 = No**
			Major Deviation = Two (2)		**1 = Yes**
	German Toponyms *Jäger Report (JR #) LHA # JR Match Y/N/U V=deviation #*	**Lithuanian Toponyms** *[1] German Administrative Map - General District of Lithuania [2] Holocaust in Lithuania 1941*	**Toponyms & Coordinates (DD)** *NGA GeoNET Name Server ADM1 or PPL*	**Toponyms & Coordinates (DD)** *Lithuanian Holocaust Atlas or Lo Tishkach Database*	**Spatial Associations** *Lithuanian Holocaust Atlas*
1	Aglona (Latvia) (544) Unknown JR Match Unknown V = 3	Aglonas Novads (1)	Aglonas Novads (1) (ADM1) 56.10667 27.10056	Aglonas Novads (1) 56.123333 (1) 27.016667 (1)	Additional sources required to determine associations
2	Agriogala (662) 662 JR Match (Y) V = 3	Ariogala (1) [1]	Ariogala (1) (ADM1) 55.266667 23.466667	Ariogala (1) 55.255183 (1) 23.481717 (1)	1
3	Alytus (1279, 719) 740 JR Match (N) V = 2	Alytus (0) [1]	Alytus (0) (ADM1) 54.35 24.016667	Alytus (0) 54.378033 (1) 24.042083 (1)	1
4	Babtei (6) 6 JR Match (Y) V = 3	Babtai (1) [1]	Babtai (1) (PPL) 55.1 23.8	Babtai (1) 55.107450 (1) 23.787533 (1)	1
5	Bischolin (Unknown) JR Match (U) V = Unknown	Undetermined: Possible Belorussian Toponym Variant	Name Not Recognized	Name Not Recognized	Additional sources required to determine associations
6	Bober (Unknown) JR Match (U)	Undetermined: Possible Belorussian	Name Not Recognized	Name Not Recognized	Additional sources required to

	V = Unknown	Toponym Variant			determine associations
7	Butrimonys (740) 740 JR Match (Y) V = 1	Butrimonys (0) [1]	Butrimonys (0) (PPL) 54.5 24.25	Butrimonys (0) 54.488433 (1) 24.253633 (0)	1
8	Carliava (247) 247 JR Match (Y) V = 2	Garliava (1) [1]	Garliava (1) (PPL) 54.816667 23.866667	Garliava (1) 54.818917 (0) 23.902883 (1)	1
9	Cekiske (146) 800 JR Match (N) V = 4	Čekiškė (2) [1]	Čekiškė (2) (PPL) 55.166667 23.516667	Čekiškė (2) 55.020467 (1) 23.605367 (1)	1
10	Dagda (Latvia) (216) V = 3	Dagdas Novads (1)	Dagdas Novads (1) (ADM1) 56.12028 27.64444	Dagdas Novads (1) 56.1004 (1) 27.5379 (1)	Additional sources required to determine associations
11	Darsuniskis (99) 99 JR Match (Y) V = 3	Darsūniškis (2) [2]	Darsūniškis (2) (PPL) 54.733333 24.116667	Darsūniškis (2) 54.727750 (1) 24.127883 (1)	1
12	Dünaburg (Latvia) V = 4	Daugavpils (2)	Daugavpils (2) (ADM1) 55.88139 26.53889	Daugavpils (2) 55.921 (1) 26.485 (1)	Additional sources required to determine associations
13	Eysisky (3446) 3446 JR Match (Y) V = 3	Eišiškės (2) [1]	Eišiškės (2) (PPL) 54.166667 25	Eišiškės (2) 54.170100 (1) 25.010200 (0)	1
14	Georgenburg (412) 600 JR Match (N) V = 4	Jurbarkas (2) [1]	Jurbarkas (2) (ADM1) 55.183333 22.883333	Jubarkas (2) 55.080910 (1) 22.793241 (1)	1
15	Girkalinei (6) 1000 JR Match (N) V = 2	Girkalnis (1) [1]	Girkalnis (1) (PPL) 55.316667 23.216667	Girkalnis (1) 55.297100 (1) 23.218500 (0)	1

16	Jahiunai (575) 575 JR Match (Y) V = 4	Jašiūnai (2) [1]	Jašiūnai (2) (PPL) 54.45 25.333333	Jašiūnai (2) 54.423617 (1) 25.312500 (1)	0
17	Jasvaniai (282) 700 JR Match (N) V = 2	Josvainiai (1)	Josvainiai (1) (PPL) 55.25 23.833333	Josvainiai (1) 55.255183 (0) 23.481717 (1)	1
18	Jesuas (144) 144 JR Match (Y) V = 2	Jieznas (1) [2]	Jieznas (1) (PPL) 54.6 24.166667	Jieznas (1) 54.592483 (1) 24.190617 (0)	1
19	Jonava (2108) 2108 JR Match (Y) V = 2	Jonava (0) [1]	Jonava (0) (ADM1) 55.116667 24.3	Jonava (0) 55.087483 (1) 24.293967 (1)	1
20	Joniskia (355) 493 JR Match (N) V = 3	Joniškis (2) [1]	Joniškis (2) (ADM1) 56.233333 23.5	Joniškis (2) 56.195583 (1) 23.562650 (0)	1
21	Kaisiadorys (1911) 1911 JR Match (Y) V = 2	Kaišiadorys (2) [1]	Kaišiadorys (2) (ADM1) 54.833333 24.416667	Kaišiadorys (2) 54.823900 (0) 24.460700 (0)	1
22	Kauen Fort IV (1812) 1812 JR Match (Y) V = 4	Kaunas (1) [1]	Kaunas (1) (ADM1) 55 23.8	Kaunas (1) 54.851783 (2) 23.954017 (1)	1
23	Kauen Fort VII (463) 463 JR Match (Y) V = 4	Kaunas (1) [1]	Kaunas (1) (ADM1) 55 23.8	Kaunas (1) 54.915217 (2) 23.926833 (1)	1
24	Kauen Fort IX (9200) 9200 JR Match (Y) V = 3	Kaunas (1) [1]	Kaunas (1) (ADM1) 55 23.8	Kaunas (1) 54.944967 (2) 23.871017 (0)	1
25	Kedainiai (2076) 2076 JR Match (Y) V = 3	Kėdainiai (2) [1]	Kėdainiai (2) (ADM1) 55.333333 23.933333	Kėdainiai (2) 55.299083 (1) 23.960350 (0)	1

26	Krakes (1125) 1125 JR Match (Y) V = 2	Krakės (2) [1]	Krakės (2) (PPL) 55.4 23.733333	Krakės (2) 55.404317 (0) 23.706467 (0)	1
27	Kraslawa (Latvia) (216) JR Match (U) V = 4	Krāslavas Novads (2)	Krāslavas Novads (2) (ADM1) 55.92333 27.32111	Krāslavas Novads (2) 55.9023 (1) 27.1413 (1)	Additional sources required to determine associations
28	Kreis Rasainiai (1926) JR Match (U) V = 1	Raseiniai (0) [1]	Raseiniai (0) (ADM1) 55.383333 23.216667	Raseiniai (0) 55.337000 (0) 23.085867 (1)	1
29	Lazdijai (1535) 1535 JR Match (Y) V = 2	Lazdijai (0) [1]	Lazdijai (0) (ADM1) 54.166667 23.633333	Lazdijai (0) 54.216717 (1) 23.519617 (1)	1
30	Leipalingis (155) 155 JR Match (Y) V = 0	Leipalingis (0) [1]	Leipalingis (0)(PPL) 54.083333 23.85	Leipalingis (0) 54.080017 (0) 23.853600 (0)	1
31	Mariampole (5090) 5090 JR Match (Y) V = 3	Marijampolė (2) [1]	Marijampolė (2) (ADM1) 54.55 23.466667	Marijampolė (2) 54.545650 (0) 23.334033 (1)	1
32	Merkine (854) 854 JR Match (Y) V = 5	Merkinė (2) [1]	Merkinė (2) (PPL) 54.166667 24.166667	Merkinė (2) 54.157683 (1) 24.192500 (2)	1
33	Moletai (Utena) (3782) 3782 JR Match (Y) V = 3	Molėtai (2) [1]	Molėtai (2) (ADM1) 55.216667 25.433333	Molėtai (2) 55.222100 (1) 25.401700 (0)	1
34	Nemencing (403) 403 JR Match (Y) V = 2	Nemenčinė (2) [1]	Nemenčinė (2)(PPL) 54.85 25.483333	Nemenčinė (2) 54.831446 (0) 25.436954 (0)	1
35	Novo-Wilejka (1159) 1159	Naujoji Vilnia (1)	Naujoji Vilnia (1) (PPL)	Naujoji Vilnia (1)	1

#					
	JR Match (Y) V = 2	[2]	54.7 25.416667	54.666233 (1) 25.447550 (0)	
36	Obeliai (1160) 1160 JR Match (Y) V = 1	Obeliai (0) [1]	Obeliai (0) (PPL) 55.966667 25.15	Obeliai (0) 55.923200 (0) 25.840000 (1)	1
37	Panevezys (7523) 7523 JR Match (Y) V = 4	Panevėžys (2) [1]	Panevėžys (2) (ADM1) 55.65 24.35	Panevėžys (2) 55.734100 (1) 24.476233 (1)	1
38	Pasvalys (1349) 1349 JR Match (Y) V = 2	Pasvalys (0) [1]	Pasvalys (0) (ADM1) 56.066667 24.333333	Pasvalys (0) 56.026833 (1) 24.446417 (1)	1
39	Petrasiunai (125) 125 JR Match (Y) V = 2 (full deviation cannot be determined)	Petrašiūnai (2) Not identified on historic maps	Petrašiūnai (2) (PPL) 56.026667 23.944167	Petrašiūnai (2) Unknown Location	Additional sources required to determine associations
40	Pleschnitza (Unknown) JR Match (U) V = U	Undetermined: Possible Belorussian Toponym Variant	Name Not Recognized	Name Not Recognized	Additional sources required to determine associations
41	Pravenischkis (253) 253 JR Match (Y) V = 2	Pravieniškės (2) [2]	Pravieniškės (2) (PPL) 54.916667 24.233333	Pravieniskes (2) 54.922817 (0) 24.210883 (0)	1
42	Prienai (1078) 1078 JR Match (Y) V = 3	Prienai (0) [1]	Prienai (0) (ADM1) 54.670833 24	Prienai (0) 54.649117 (1) 23.969117 (2)	1
43	Rasainiai (298) 298 JR Match (Y) V = 1	Raseiniai (0) [1]	Raseiniai (0) (ADM1) 55.383333 23.216667	Raseiniai (0) 55.337000 (0) 23.085867 (1)	1
44	Riess (1767) 1767 JR Match (Y)	Riešė (2) [1]	Riešė (2) (PPL) 54.816667	Riešė (2) 54.813317 (0)	1

	V = 3		25.233333	25.342967 (1)	
45	Rokiskis (3207) 3207 JR Match (Y) V = 4	Rokiškis (2) [1]	Rokiškis (2) (ADM1) 55.95 25.533333	Rokiškis (2) 55.996067 (1) 25.631200 (1)	1
46	Rumsiskis (Ziezmariai) (784) 784 JR Match (Y) V = 3	Rumšiškės (2) [1]	Rumšiškės (2) (PPL) 54.85 24.2	Rumšiškės (2) 54.803950 (0) 24.558563 (1)	1
47	Scak (Unknown) JR Match (U) V = Unknown	Undetermined: Possible Belorussian Toponym Variant	Name Not Recognized	Name Not Recognized	Additional sources required to determine associations
48	Seduva (664) 664 JR Match (Y) V = 4	Šeduva (2) [1]	Šeduva (2) (PPL) 55.766667 23.766667	Šeduva (2) 55.692100 (1) 23.660750 (1)	1
49	Seirijai (953) 953 JR Match (Y) V = 2	Seirijai (0) [2]	Seirijai (0) (PPL) 54.233333 23.816667	Seirijai (0) 54.212900 (1) 23.848117 (1)	1
50	Semiliski (962) 962 JR Match (Y) V = 2	Semeliškės (2) [1]	Semeliškės (2) (PPL) 54.666667 24.666667	Semeliškės (2) 54.671500 (0) 24.673700 (0)	1
51	Seredsius (193) 193 JR Match (Y) V = 4	Seredžius (2) [2]	Seredžius (2) (PPL) 55.083333 23.416667	Seredžius (2) 55.061830 (1) 23.466775 (1)	1
52	Simnas (414) 414 JR Match (Y) V = 1	Simnas (0) [1]	Simnas (0) (PPL) 54.4 23.65	Simnas (0) 54.354817 (1) 23.637600 (0)	0
53	Svenciany (3726) 8000 JR Match (N) V = 4	Švenčionys (2) [1]	Švenčionys (2) (ADM1) 55.116667 26.016667	Švenčionys (2) 55.166900 (0) 25.980967 (2)	1

54	Trakai (1446) 1446 JR Match (Y) V = 2	Trakai (0) [1]	Trakai (0) (ADM1) 54.55 24.783333	Trakai (0) 54.649933 (1) 24.961733 (1)	1
55	Ukmerge (4709) 10000 JR Match (N) V = 4	Ukmergė (2) [1]	Ukmergė (2) (ADM1) 55.266667 24.758333	Ukmergė (2) 55.220117 (1) 24.806050 (1)	1
56	Utena (Molėtai) (3782) 3782 JR Match (Y) V = 0	Utena (0) [1]	Utena (0) (ADM1) 55.5125 25.691667	Utena (0) 55.519533 (0) 25.600650 (0)	1
57	Uzda (Unknown) JR Match (U) V = 1	Uzda (0)	Uzda (0) (PPL) 53.4627 27.2137	Uzda (0) 53.466824 (0) 27.224373 (1)	Additional sources required to determine associations
58	Uzusalis (43) JR Match (U) V = 2 (full deviation cannot be determined)	Užusaliai (2) Not identified on historic maps	Užusaliai (2) (PPL) 54.983333 24.2	No sites found	Additional sources required to determine associations
59	Varena (831) 831 JR Match (Y) V = 3	Varėna (2) [1]	Varėna (2)(ADM1) 54.183333 24.5	Varėna (2) 54.265017 (1) 24.518583 (0)	1
60	Velinona (159) JR Match (U) V = 2	Veliuona (1) [1]	Veliuona (1) (PPL) 55.083333 23.283333	Veliuona (1) 55.086450 (0) 23.235867 (1)	1
61	Wendziogala (38) 38 JR Match (Y) V = 2	Vandžiogala (2) [1]	Vandžiogala (2) (PPL) 55.116667 23.966667	Vandžiogala (2) 55.119283 (0) 23.975000 (0)	0
62	Wilkia (402) 402 JR Match (Y) V = 3	Vilkija (1) [1]	Vilkija (1) (PPL) 55.05 23.583333	Vilkija (1) 55.020467 (1) 23.605367 (1)	1

63	Wilkowisksi (115) 115 JR Match (Y) V = 3	Vilkaviškis (2) [1]	Vilkaviškis (2) (ADM1) 54.6 22.966667	Vilkaviškis (2) 54.650200 (0) 22.774917 (1)	1	
64	Wilna Stadt (3700) 3700 JR Match (Y) V = 3	Vilnius (1) [1]	Vilnius (1) (ADM1) 54.8 25.508333	Vilnius (1) 54.626200 (1) 25.161317 (1)		1
65	Zagare (2236) 2236 JR Match (Y) V = 4	Žagarė (2) [1]	Žagarė (2) (PPL) 56.359167 23.25	Žagarė (2) 56.361417 (1) 23.274917 (1)	1	
66	Zapiskis (178) 178 JR Match (Y) V = 4	Zapyškis (2) [1]	Zapyškis (2) (PPL) 54.916667 23.666667	Zapyškis (2) 54.930450 (1) 23.643017 (1)	1	
67	Zarasai (2569) 2569 JR Match (Y) V = 3	Zarasai – (0) [1]	Zarasai (0) (ADM1) 55.7 26.1	Zarasai (0) 55.687133 (1) 25.995183 (2)	1	
68	Ziezmariai (Rumsiskis) (784) 784 JR Match (Y) V = 3	Žiežmariai (2) [1]	Žiežmariai (2) (PPL) 54.8 24.45	Žiežmariai (2) 54.803950 (0) 24.558563 (1)	1	

Table 11: Deviation Matrix

CHAPTER SIX: SUMMARY, CONCLUSIONS AND FUTURE RESEARCH

6.0 Summary

This thesis examined a geohistoric forensic case study that addressed how toponym deviation, found in the Jäger Report, impacted the research process with regards to georeferencing and spatial association. World War II era Lithuania was the landscape for this study, where context was provided to examine Lithuania's historical background taking into account the nation's history of occupation by Poland, the Soviet Union and Germany. As a focal point of this thesis was place names, an introduction to toponyms and Lithuanian language complexities was provided, as was Nazi Germany's spatial ideological impact on Lithuania. The Jäger Report was introduced as the key source document, while historical maps, and the digital data and functionality of a specialized gazetteer and database in the form of the NGA GeoNET Names Server, Lithuanian Holocaust Atlas and Lo Tishkach Database were described. Finally a methodology for utilizing these disparate data sources was defined and implemented to examine the research questions of *"to what degree does toponym deviation as listed in the Jäger Report, hinder the research process with regards to place name georeferencing and discovering spatial associations?"*

6.2 Conclusions

A broad conclusion to this research is that working with spatially relevant information based on historic events is challenging and rewarding. Challenging from the perspective that it requires gaining some level of knowledge and expertise in multiple disciplines that can support the research at hand, and rewarding for the same reasons.

Georeferencing place names and identifying associations with those locations utilizing historical data sources such as the Jäger Report posed unique challenges and provided insights in the spatial, cultural, and linguistic disciplines all of which are intrinsically related. The touchstone for determining spatial fidelity, which in turn provided the capacity to associate or link other locations, relied on a series of letters and symbols. As a result, the language as interpreted by the man affects the knowledge of space.

This research examined how toponym deviation could impact georeferencing and spatial association processes. In plain terms, it can be concluded that if a place name cannot readily be defined, it will affect the temporal constraints of these processes. Looking at conflicts through the geohistorical lens, the question could be posed; could place name knowledge lead to general or perhaps specific georeferencing and spatial association have made a difference in the outcome of any conflict? It can only be speculated that knowledge could result in increased awareness and the necessary reaction.

Regarding process improvement, implementation of this study's methodology was primarily performed manually, where consolidation of information from maps and online sources into a series of spreadsheets used to manipulate and manage the data associated with this study was both necessary and time consuming. In retrospect, process

automation where spatial and non-spatial data could be brought together and used more efficiently would be optimum.

Finally, although this study focused on spatial and linguistic deviation and associations, the underlying context of the studies dealt with the movement and elimination of people linked to the temporal and spatial components documented on the pages of the Jäger Report. That being said, it is difficult to read and analyze the subject matter of this report as clinically as the author wrote it without grieving for humanity, so an ancillary conclusion of this study, related to the human element and specifically looking through the lens of the report's author, was that naming a place is representative of what one knows or interprets regarding their surroundings. The place names were likely only viewed as words on a map or interpretations of the spoken word. Spatial accuracy was not as important as documenting the temporal and cultural elements associated with the report for the consumers in Berlin.

6.3 Future Research

The result of the actions that took place as described in the Jäger Report impacted the Lithuanian people and landscape from multiple categories. As illustrated in this research, three overarching categories were conflict; the resulting population movement associated with this conflict; and the elimination of targeted population groups.

Although this thesis examined a geo-historical event from over 70 years ago, the challenges related to toponym deviation and its impact to georeferencing and discovering spatial associations have modern day relevance which will be illustrated in the following scenarios. These scenarios will address the aforementioned categories of conflict,

61

population movement in the form of forced migration, and genocidal actions that could result from prior two categories.

6.3.1 Conflict Scenario

The need to discern locational information gleaned from toponyms to establish spatial associations has been relevant in past conflicts and will continue to have relevance to future conflicts. The argument could be made that this relevance is higher due to the increased tempo of modern day warfare. Knowing where a place name, its variants and any associated locations precisely reside on a map could be instrumental and highly beneficial in establishing more refined spatial networks. This knowledge could make the difference in determining the best alternatives for conflict resolution.

6.3.2 Population Displacement Scenario

Movement of people, either by choice or forced migration as a result of regional conflicts, occurs at various levels throughout the world. In the case of forced migration, which could be categorized as a man-made environmental disaster, knowing where the movement originated from, is currently located, and where it could terminate can all be directly tied to place names and spatial associations. Having insight into these elements can be vital to preparedness for the management of these types of cultural crises.

6.3.3 Population Genocide Scenario

As was illustrated during the war crimes associated with the Holocaust, an either overt or covert end goal of forced migration is elimination of elements of a population. Fast forwarding to current times, knowledge of place names that can be accurately georeferenced and associated with other locations could play a part in reducing critical reaction time needed to mitigate such events.

6.3.4 Geographic Information System (GIS) Application

Regarding the aforementioned scenarios, having the geospatial knowledge is only half the battle. Applying the information in the most efficient manner possible is the other half of the challenge. This is where the functionality of a Geographic Information System would provide a means to capture, examine, manage, and implement a multitude of geospatial problem solving procedures thereby creating and expanding layers of geospatial intelligence. Accurately georeferenced place names and associated locations would be one of many layers of that intelligence.

APPENDIX A: THE JÄGER REPORT

Figure 7: Jäger Report - Page 1 of 9

Übertrag: 3 834

29.7.41 Rasainiai	254 Juden, 3 lit. Kommunisten	257
30.7.41 Agriogala	27 " , 11 " "	38
31.7.41 Utena	235 " , 16 Jüdinnen, 4 lit./Komm. 1 zweifacher Raubmörder	256
11/31.7.41 Wendziogala	13 Juden, 2 Mörder	15

Monat August:

1.8.41 Ukmerge	254 Juden, 42 Jüdinnen, 1 pol. Komm. 2 lit. NKWD-Agenten, 1 Bürgermeister von Jonava, der den Befehl zum An- zünden der Stadt Jonava gab	300
2.8.41 Kauen-Fort IV	170 Juden, 1 USA-Jude, 1 USA-Jüdin, 33 Jüdinnen, 4 lit. Kommunisten	209
4.8.41 Panevezys	362 Juden, 41 Jüdinnen, 5 russ. Komm. 14 lit. Kommunisten	422
5.8.41 Rasainiai	213 Juden, 66 Jüdinnen	279
7.8.41 Utena	483 " , 87 " , 1 Litauer, war Leichenfledderer an deutschen Soldaten	571
8.8.41 Ukmerge	620 Juden, 82 Jüdinnen	702
9.8.41 Kauen-Fort IV	484 " , 50 "	534
11.8.41 Panevezys	450 " , 48 " , 1 lit.1 russ.K.	500
13.8.41 Alytus	617 " , 100 " , 1 Verbrecher	719
14.8.41 Jonava	497 " , 55 "	552
15.und 16.8.41 Rokiskis	3200 Juden, Jüdinnen und J.-Kinder, 5 lit. Komm., 1 Pole, 1 Partisane	3 207
9.bis 16.8.41 Rasainiai	294 Jüdinnen, 4 Judenkinder	298
27.6.bis 14.8.41 Rokiskis	493 Juden, 432 Russen, 56 Litauer (alles aktive Kommunisten)	981
18.8.41 Kauen-Fort IV	698 Juden, 402 Jüdinnen, 1 Polin, 711 Intell.-Juden aus dem Ghetto als Repressalie für eine Sabotage- Handlung	1 812
19.8.41 Ukmerge	298 Juden, 255 Jüdinnen, 1 Politr. 88 Judenkinder, 1 russ. Kommunist	645
22.8.41 Dünaburg	3 russ. Komm., 5 Letten, dabei war 1 Mörder, 1 russ. Gardist, 3 Polen, 3 Zigeuner, 1 Zigeunerin, 1 Zigeu- nerkind, 1 Jude, 1 Jüdin, 1 Arme- nier, 2 Politruks (Gefängnis-über- prüfung in Dünaburg)	21

Übertrag: 16 152

Figure 8: Jäger Report - Page 2 of 9

Blatt 3.

	–Übertrag:	16 152
22.8.41 Aglona	Geisteskranke: 269 Männer, 227 Frauen, 48 Kinder	544
23.8.41 Panevezys	1312 Juden, 4602 Jüdinnen, 1609 Judenkinder	7 523
18. bis 22.8.41 Kr.Raseiniai	466 Juden, 440 Jüdinnen, 1020 Judenkinder	1 926
25.8.41 Obeliai	112 Juden, 627 Jüdinnen, 421 Judenkinder	1 160
25.und 26.9.41 Seduva	230 Juden, 275 Jüdinnen, 159 Judenkinder	664
26.8.41 Zarasai	767 Juden, 1113 Jüdinnen, 1 lit.Kom. 687 Judenkinder, 1 russ.Kommunistin	2 569
26.8.41 Pasvalys	402 Juden, 738 Jüdinnen, 209 Judenkinder	1 349
26.8.41 Kaisiadorys	alle Juden,Jüdinnen u.J.-Kinder	1 911
27.8.41 Prienai	" " " " "	1 078
27.8.41 Dagda und KrasIawa	212 Juden, 4 russ.Kr.-Gefangene	216
27.8.41 Joniskis	47 Juden, 165 Jüdinnen, 143 Judenkinder	355
28.8.41 Wilkia	76 Juden, 192 Jüdinnen, 134 Judenkinder	402
28.8.41 Kedainiai	710 Juden, 767 Jüdinnen, 599 Judenkinder	2 076
29.8.41 Rumsiskis u. Ziezmariai	20 Juden, 567 Jüdinnen, 197 Judenkinder	784
29.8.41 Utena und Moletai	582 Juden, 1731 Jüdinnen, 1469 Judenkinder	3 782
13. bis 31.8.41 Alytus und Umgebung	233 Juden	233
Monat September:		
1.9.41 Mariampole	1763 Juden, 1812 Jüdinnen, 1404 Judenkinder, 109 Geisteskranke, 1 deutsche Staatsangehörige, die mit einem Juden verheiratet war, 1 russin	5 090

–Übertrag: 47 814

Figure 9: Jäger Report - Page 3 of 9

66

Blatt 4.

28.8. bis									
2.9.41	Darsuniskis	1o Juden,	69	Jüdinn.	2o	J'-Kind.			99
	Carliava	73	"	113	"	61	"		247
	Jonava	112	"	1200	"	244	"	1	556
	Petrasiunai	3o	"	72	"	23	"		125
	Jesuas	26	"	72	"	46	"		144
	Ariogala	2o7	"	260	"	195	"		662
	Jasvainai	86	"	11o	"	86	"		282
	Babtei	2o	"	41	"	22	"		83
	Wenziogala	42	"	113	"	97	"		252
	Krakes	448	"	476	"	2o1	"	1	125
4.9.41	Pravenischkis	247	"	6	"	(Netz.i.A.-Lg.)			253
4.9.41	Cekiske	22	"	64	"	6o	J.-Kind.		146
	Seredsius	6	"	61	"	126	"		193
	Velinona	2	"	71	"	86	"		159
	Zapiskis	47	"	118	"	13	"		178
5.9.41	Ukmerge	1123	"	1849	"	1737	"	4	7o9
25.8. bis									
6.9.41	Säuberung								
	in Rasainiai	16	"	412	"	415	"		843
	in Georgenburg	alle	"	alle	"	alle	"		412
9.9.41	Alytus	287	"	64o	"	352	"	1	279
9.9.41	Butrimonys	67	"	37o	"	3o3	"		74o
1o.9.41	Merkine	223	"	355	"	276	"		854
1o.9.41	Varena	541	"	141	"	149	"		831
11.9.41	Leipalingis	6o	"	7o	"	25	"		155
11.9.41	Seirijai	229	"	384	"	34o	"		953
12.9.41	Simnas	68	"	197	"	149	"		414
11. und									
12.9.41	Uzusalis	Strafaktion gegen Bewohner, die die russ.Partisanen verpflegt haben und teilweise in Besitze von Waffen waren							43
26.9.41	Kauen-F.IV-	412 Juden 615 Jüdinnen, 581 J.-Kind. (Kranke u.Seuchenverdächtige)						1	6o8

Figure 10: Jäger Report - Page 4 of 9

67

Blatt 5.

<u>Monat Oktober:</u>

2.10.41	Lagare	633 Juden, 1107 Jüdinn., 496 J.-Ki. 2 236 (beim Abführen dieser Juden entstand eine Meuterei, die jedoch sofort niedergeschlagen wurde. Dabei wurden 150 Juden sofort erschossen. 7 Partisanen wurd. verletzt)	2 236
4.10.41	Kauen-F.IX-	315 Juden, 712 Jüdinn., 818 J.-Kind. (Strafaktion weil im Ghetto auf einen deutsch. Polizisten geschossen wurde)	1 845
29.10.41	Kauen-F.IX-	2007 Juden, 2920 Jüdinnen, 4273 Judenkinder (Säuberung des Ghettos von überflüssigen Juden)	9 200

<u>Monat November:</u>

3.11.41	Lasdijai	485 Juden,	511 Jüdinn.,	539 J.-Kind.			1 535
15.11.41	Wilkowiski	36 "	48 "	31 "			115
25.11.41	Kauen-F.IX-	1159 "	1600 "	175 "			2 934
		(Umsiedler aus Berlin, München u. Frankfurt a.M.)					
29.11.41	" "	693 "	1155 "	152 "			2 000
		(Umsiedler aus Wien u. Breslau)					
29.11.41	" "	17 Juden, 1 Jüdin, die gegen die Ghettogesetze verstossen hatten, 1 R.-Deutscher, der zum jüdischen Glauben übergetreten war und eine Rabinerschule besucht hatte, dann 15 Terroristen der Kalinin-Gruppe					34

Teilkommando des EK.3
in Dünaburg in der Zeit
<u>vom 13.7.-21.8.41:</u>

        9012 Juden, Jüdinnen und Judenkinder,
        573 aktive Kommunisten   9 585

Teilkommando des EK.3
<u>in Wilna:</u>

12.8. bis
1.9.41 Wilna-Stadt   425 Juden, 19 Jüdinnen, 8 Kommunist.
        9 Kommunistinnen   461

2.9.41 " "   864 Juden, 2019 Jüdinnen,
        817 Judenkinder
        (Sonderaktion, weil von Juden auf
        deutsche Soldaten geschossen wurde) 3 700

Figure 11: Jäger Report - Page 5 of 9

Blatt 6.

-Übertrag: 99 804

Datum	Ort	Juden		Jüdinn.		J.-Kind.		Summe
12.9.41	Wilna-Stadt	993 Juden,		1670 Jüdinn.		771 J.-Kind.		3 334
17.9.41	" "	337 "		687 "		247 "		1 271
	und 4 lit. Kommunisten							
20.9.41	Nemencing	128 Juden,		176 Jüdinn.		99 "		403
22.9.41	Novo-Wilejka	468 "	,	495 "		196 "		1 159
24.9.41	Riess	512 "		744 "		511 "		1 767
25.9.41	Jahiunai	215 "		229 "		131 "		575
27.9.41	Eysisky	989 "		1636 "		821 "		3 446
30.9.41	Trakai	366 "		483 "		597 "		1 446
4.1o.41	Wilna-Stadt	432 "		1115 "		436 "		1 983
6.1o.41	Semilishki	213 "		359 "		390 "		962
9.1o.41	Svenciany	1169 "		1840 "		717 "		3 726
16.1o.41	Wilna-Stadt	382 "		507 "		257 "		1 146
21.1o.41	" "	718 "		1063 "		586 "		2 367
25.1o.41	" "	– "		1766 "		812 "		2 578
27.1o.41	" "	946 "		184 "		73 "		1 203
3o.1o.41	" "	382 "		789 "		362 "		1 533
6.11.41	" "	340 "		749 "		252 "		1 341
19.11.41	" "	76 "		77 "		18 "		171
19.11.41	" "	6 Kriegsgefangene, 8 Polen						14
20.11.41	" "	3 "						3
25.11.41	" "	9 Juden, 46 Jüdinnen, 8 J.-Kinder, 1 Pole wegen Waffenbesitz u. Besitz von anderem Kriegsgerät						64

Teilkommando des EK.3
in Minsk
vom 28.9.-17.1o.41:

Pleschnitza,
Bicholin,
Scak,
Beber,
Uzda 62o Juden, 1285 Jüdinnen, 1126 J.-Kind. und 19 Kommunisten 3 o5o

_____

133 346

Vor Übernahme der sicherheitspol. Aufgaben durch das EK.3, 4 ooo
Juden durch Progrome und Exekutionen - ausschliesslich von
Partisanen - liquidiert.

_____

Sa. 137 346

_____

Figure 12: Jäger Report - Page 6 of 9

69

Blatt 7.

Ich kann heute feststellen, dass das Ziel, das Judenproblem für Litauen zu lösen, vom EK.3 erreicht worden ist. In Litauen gibt es keine Juden mehr, ausser den Arbeitsjuden incl. ihrer Familien.

Das sind

in Schaulen	ca.	4 500
in Kauen	"	15 000
in Wilna	"	15 000.

Diese Arbeitsjuden incl. ihrer Familien wollte ich ebenfalls umlegen, was mir jedoch scharfe Kampfansage der Zivilverwaltung (dem Reichskommissar) und der Wehrmacht eintrug und das Verbot auslöste: Diese Juden und ihre Familien dürfen nicht erschossen werden!

Das Ziel, Litauen judenfrei zu machen, konnte nur erreicht werden, durch die Aufstellung eines Rollkommandos mit ausgesuchten Männern unter Führung des SS-Obersturmführer Hamann, der sich meine Ziele voll und ganz aneignete und es verstand, die Zusammenarbeit mit den litauischen Partisanen und den zuständigen zivilen Stellen zu gewährleisten.

Die Durchführung solcher Aktionen ist in erster Linie eine Organisationsfrage. Der Entschluss, jeden Kreis systematisch judenfrei zu machen, erforderte eine gründliche Vorbereitung jeder einzelnen Aktion und Erkundung der herrschenden Verhältnisse in dem betreffenden Kreis. Die Juden mussten an einem Ort oder an mehreren Orten gesammelt werden. An Hand der Anzahl musste der Platz für die erforderlichen Gruben ausgesucht und ausgehoben werden. Der Anmarschweg von der Sammelstelle zu den Gruben betrug durchschnittlich 4 bis 5 km. Die Juden wurden in Abteilungen zu 500, in Abständen von mindestens 2 km, an den Exekutionsplatz transportiert. Welche Schwierigkeiten und nervenaufreibende Arbeit dabei zu leisten war, zeigt ein willkürlich herausgegriffenes Beispiel:

In Rokiskis waren 3208 Menschen 4 1/2 km zu transportieren, bevor sie liquidiert werden konnten. Um diese Arbeit in 24 Stunden bewältigen zu können, mussten von 80 zur Verfügung stehenden litauischen Partisanen über 60 zum Transport, bezw.

Figure 13: Jäger Report - Page 7 of 9

70

besw. zur Absperrung eingeteilt werden. Der verbleibende Rest, der immer wieder abgelöst wurde, hat zusammen mit meinen Männern die Arbeit verrichtet. Kraftfahrzeuge stehen zum Transport nur selten zur Verfügung. Fluchtversuche, die hin und wieder vorkamen, wurden ausschliesslich durch meine Männer unter eigener Lebensgefahr verhindert. So haben z.B. 3 Mann des Kommandos bei Mariampole 38 ausbrechende Juden und kommunistische Funktionäre auf einem Waldweg zusammengeschossen, ohne dass jemand entkam. Der An- und Rückmarschweg betrug zu den einzelnen Aktionen Garchweg 160 - 200 km. Nur durch geschickte Ausnutzung der Zeit ist es gelungen, bis zu 5 Aktionen in einer Woche durchzuführen und dabei doch die in Kauen anfallende Arbeit so zu bewältigen, dass keine Stockung im Dienstbetrieb eingetreten ist.

Die Aktionen in Kauen selbst, wo genügend einigermassen ausgebildete Partisanen zur Verfügung stehen, kann als Paradeschiessen betrachtet werden, gegenüber den oft ungeheuerlichen Schwierigkeiten die ausserhalb zu bewältigen waren.

Sämtliche Führer und Männer meines Kommandos in Kauen haben an den Grossaktionen in Kauen aktiv teilgenommen. Lediglich ein Beamter des Erkennungsdienstes war infolge Krankheit von der Teilnahme befreit.

Ich betrachte die Judenaktionen für das EK.3 in der Hauptsache als abgeschlossen. Die noch vorhandenen Arbeitsjuden und Jüdinnen werden dringend gebraucht und ich kann mir vorstellen, dass nach dem Winter diese Arbeitskräfte dringendst weiter gebraucht werden. Ich bin der Ansicht, dass sofort mit der Sterilisation der männlichen Arbeitsjuden begonnen wird, um eine Fortpflanzung zu verhindern. Wird trotzdem eine Jüdin schwanger, so ist sie zu liquidieren.

Eine der wichtigsten Aufgaben sah das EK.3, neben den Judenaktionen, in der Überprüfung der meist überfüllten Gefängnisse in den einzelnen Orten und Städten. Durchschnittlich mussten in jeder Kreisstadt an 600 Personen lit.Volksangehörigkeit in Gefängnis sein, obwohl ein eigentlicher Haftgrund nicht verlag. Sie wurden von Partisanen auf Grund einfacher Denunzierungen usw. festgenommen. Viele persönliche Rechnungen waren dabei beglichen worden. Kein Mensch hat sich um sie gekümmert. Man muss in den Gefängnissen gewesen sein und sich mal einen Moment in den überfüllten Zellen aufgehalten

Figure 14: Jäger Report - Page 8 of 9

aufgehalten haben, die in hygienischer Beziehung oft jeder Beschreibung spotten. In Jonava - und das ist ein Beispiel für viele - sasse in einem düsteren Kellerraum von 3 m Länge, 3 m Breite und 1,65 m Höhe, 5 Wochen lang 16 Männer ein, die alle entlassen werden konnten weil gegen sie nichts vorzubringen war. Mädchen im Alter von 13 bis 16 Jahren sind eingesperrt worden, weil sie sich, um Arbeit zu bekommen, um die Aufnahme in die kommunistische Jugend beworben hatten Hier musste durch durchgreifende Massnahmen eine klare Richtung in die Köpfe der zuständigen litauischen Kreise hineingehämmert werden. Die Gefängnisinsassen wurden auf dem Gefängnishof aufgestellt und an Hand der Listen und Unterlagen überprüft. Diejenigen, die wegen harmloseren Vergehen grundlos eingesperrt waren, wurden zu einem besonderen Haufen zusammengestellt. Diejenigen, die wir aufgrund ihres Vergehens zu 1 - 3 und 6 Monaten verurteilten, wurden wieder gesondert aufgeteilt, ebenso diejenigen, die zu liquidieren waren, wie Verbrecher, kommunistische Funktionäre, Politruks und anderes Gesindel. Zusätzlich zu der ausgesprochenen Strafe erhielt ein Teil, je nach dem Vergehen, im besonderen kommunistische Funktionäre, 10 bis 40 Peitschenhiebe zudiktiert, die jeweils sofort ausgeteilt wurden. Nach Abschluss der Überprüfung wurden die Gefangenen in ihre Zellen zurückgeführt. Die Freizulassenden wurden im Zuge nach dem Marktplatz gebracht und dort nach einer kurzen Ansprache, in Gegenwart vieler Einwohner, freigelassen. Die Ansprache hatte folgenden Inhalt (sie wurde satzweise sofort von einem Dolmetscher litauisch und russisch übersetzt):

"Wenn wir Bolschewisten wären, hätten wir Euch erschossen, da wir aber Deutsche sind, geben wir Euch die Freiheit."

Dann folgte eine scharfe Ermahnung, sich jeder politischen Tätigkeit zu enthalten, sofort alles, was über Gegenströmungen in Erfahrung gebracht wird, den deutschen Stellen zu melden und sich sofort arbeitsmässig an Wiederaufbau, vor allem in der Landwirtschaft, intensiv zu beteiligen. Sollte sich einer erneut eines Vergehens schuldig machen, werde er erschossen. Dann wurden sie entlassen.

Man kann sich keine Vorstellung machen, welche Freude, Dankbarkeit und Begeisterung diese unsere Massnahme jeweils bei den Freigelassenen und der Bevölkerung auslöste. Mit scharfen Worten musste man sich oft der Begeisterung erwehren, wenn Frauen, Kinder und Männer mit tränenden Augen versuchten, uns die Hände und Füsse zu küssen.

H-Standartenführer

Figure 15: Jäger Report - Page 9 of 9

APPENDIX B: GEOCOORDINATE DEVIATION DATA FOR GIS LAYER

Table 11: Geocoordinate Deviation Data For GIS Layer Illustrated in Chapter 5

Object ID	German	Lithuanian	NGA-GNS	Atlas & Database	distance	distdev
1	Aglona	Aglonas Novads (1)	56.10667, 27.10056	56.123333, 27.016667	496.4548376	0
2	Agriogala	Ariogala (1)	55.266667, 23.466667	55.255183, 23.481717	77.90943618	0
3	Alytus	Alytus (0)	54.35, 24.016667	54.378033, 24.042083	201.4765596	0
4	Babtei	Babtai (1)	55.1, 23.8	55.107450, 23.787533	48.49882769	0
7	Butrimonys	Butrimonys (0)	54.5, 24.25	54.488433, 24.253633	74.47511413	0
8	Carliava	Garliava (1)	54.816667, 23.866667	54.818917, 23.902883	39.47012158	0
9	Cekiske	Čekiškė (2)	55.166667, 23.516667	55.020467, 23.605367	932.8131826	0
10	Dagda	Dagdas Novads (1)	56.12028, 27.64444	56.1004, 27.5379	627.4446071	0
11	Darsuniskis	Darsūniškis (2)	54.733333, 24.116667	54.727750, 24.127883	39.63796469	0
12	Dünaburg	Daugavpils (2)	55.88139, 26.53889	55.921, 26.485	372.3462439	0
13	Eysisky	Eišiškės (2)	54.166667, 25	54.170100, 25.010200	51.87981433	0

14	Georgenburg	Jurbarkas (2)	55.18333322., 883333	55.080910, 22.793241	657.8186149	0
15	Girkalinei	Girkalnis (1)	55.316667, 23.216667	55.297100, 23.218500	124.7184003	0
16	Jahiunai	Jašiūnai (2)	54.45, 25.333333	54.423617, 25.312500	181.4482699	0
17	Jasvaniai	Josvainiai (1)	55.25, 23.833333	55.255183, 23.481717	605.6770269	0
18	Jesuas	Jieznas (1)	54.6, 24.166667	54.592483, 24.190617	74.31362202	0
19	Jonava	Jonava (0)	55.116667, 24.3	55.087483, 24.293967	185.9913892	0
20	Joniskia	Joniškis (2)	56.233333, 23.5	56.195583, 23.562650	447.2000436	0
21	Kaisiadorys	Kaišiadorys (2)	54.833333, 24.416667	54.823900, 24.460700	73.14326944	0
22	Kauen Fort IV	Kaunas (1)	55, 23.8	54.851783, 23.954017	942.8684536	0
23	Kauen Fort VII	Kaunas (1)	55, 23.8	54.915217, 23.926833	539.3145913	0
24	Kauen Fort IX	Kaunas (1)	55, 23.8	54.944967, 23.871017	350.4026538	0
25	Kedainiai	Kėdainiai (2)	55.333333, 23.933333	55.299083, 23.960350	225.5437282	0
26	Krakes	Krakės (2)	55.4, 23.733333	55.404317, 23.706467	75.63803357	0
27	Kraslawa	Krāslavas Novads (2)	55.92333, 27.32111	55.9023, 27.1413	930.8946161	0
28	Kreis Rasainiai	Raseiniai (0)	55.383333, 23.216667	55.337000, 23.085867	428.1605605	0

29	Lazdijai	Lazdijai (0)	54.166667, 23.633333	54.216717, 23.519617	603.4614956	0
30	Leipalingis	Leipalingis (0)	54.083333, 23.85	54.080017, 23.853600	27.69740791	0
31	Mariampole	Marijampolė (2)	54.55, 23.466667	54.545650, 23.334033	353.1676249	0
32	Merkine	Merkinė (2)	54.166667, 24.166667	54.157683, 24.192500	132.812545	0
33	Moletai (Utena)	Molėtai (2)	55.216667, 25.433333	55.222100, 25.401700	59.33781394	0
34	Nemencing	Nemenčinė (2)	54.85, 25.483333	54.831446, 25.436954	124.8891324	0
35	Novo-Wilejka	Naujoji Vilnia (1)	54.7, 25.416667	54.666233, 25.447550	222.5694822	0
36	Obeliai	Obeliai (0)	55.966667, 25.15	55.923200, 25.840000	3604.968079	1
37	Panevezys	Panevėžys (2)	55.65, 24.35	55.734100, 24.476233	750.6934461	0
38	Pasvalys	Pasvalys (0)	56.066667, 24.333333	56.026833, 24.446417	680.5310885	0
39	Petrasiunai	Petrašiūnai (2)	56.026667, 23.944167	**56.025023, 23.940954**	20.59734768	0
41	Pravenischkis	Pravieniškės (2)	54.916667, 24.233333	54.922817, 24.210883	40.05064025	0
42	Prienai	Prienai (0)	54.670833, 24	54.649117, 23.969117	151.3906507	0
43	Rasainiai	Raseiniai (0)	55.383333, 23.216667	55.337000, 23.085867	428.1605605	0
44	Riess	Riešė (2)	54.816667, 25.233333	54.813317, 25.342967	115.1985665	0

45	Rokiskis	Rokiškis (2)	55.95, 25.533333	55.996067, 25.631200	599.6034911	0
46	Rumsiskis (Ziezmariai)	Rumšiškės (2)	54.85, 24.2	54.803950, 24.558563	447.293726	0
48	Seduva	Šeduva (2)	55.766667, 23.766667	55.692100, 23.660750	661.3645521	0
49	Seirijai	Seirijai (0)	54.233333, 23.816667	54.212900, 23.848117	189.1744171	0
50	Semiliski	Semeliškės (2)	54.666667, 24.666667	54.671500, 24.673700	33.66752454	0
51	Seredsius	Seredžius (2)	55.083333, 23.416667	55.061830, 23.466775	140.2402553	0
52	Simnas	Simnas (0)	54.4, 23.65	54.354817, 23.637600	291.2968327	0
53	Svenciany	Švenčionys (2)	55.116667, 26.016667	55.166900, 25.980967	322.1293361	0
54	Trakai	Trakai (0)	54.55, 24.783333	54.649933, 24.961733	760.1925662	0
55	Ukmerge	Ukmergė (2)	55.266667, 24.758333	55.220117, 24.806050	307.0323512	0
56	Utena (Molėtai)	Utena (0)	55.5125, 25.691667	55.519533, 25.600650	300.4866897	0
57	Uzda	Uzda (0)	53.4627, 27.2137	**53,466824, 27.224373**	7118.705852	2
58	Uzusalis	Užusaliai (2)	54.983333, 24.2	**54.982829, 24.196787**	3.212750159	0
59	Varena	Varėna (2)	54.183333, 24.5	54.265017, 24.518583	526.6625137	0
60	Velinona	Veliuona (1)	55.083333, 23.283333	55.086450, 23.235867	37.91234092	0

61	Wendziogala	Vandžiogala (2)	55.116667, 23.966667	55.119283, 23.975000	18.24093366	0
62	Wilkia	Vilkija (1)	55.05, 23.583333	55.020467, 23.605367	188.315393	0
63	Wilkowisksi	Vilkaviškis (2)	54.6, 22.966667	54.650200, 22.774917	528.2915294	0
64	Wilna Stadt	Vilnius (1)	54.8, 25.508333	54.626200, 25.161317	1233.96348	1
65	Zagare	Žagarė (2)	56.359167, 23.25	56.361417, 23.274917	156.5952423	0
66	Zapiskis	Zapyškis (2)	54.916667, 23.666667	54.930450, 23.643017	88.18550838	0
67	Zarasai	Zarasai (0)	55.7, 26.1	55.687133, 25.995183	445.6398679	0
68	Ziezmariai (Rumsiskis)	Žiežmariai (2)	54.8, 24.45	54.803950, 24.558563	123.5579972	0

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BIOGRAPHY

Michael J. Bekisz graduated from North Schuylkill High School, Fountain Springs, Pennsylvania, in 1980. He received his Bachelor of Science from Wayland Baptist University in 1993, and a Master of Science from the National Intelligence University in 1999.