A SPATIAL ANALYSIS OF MEMBERSHIP

AND SUCCESS IN THE KINGDOM

OF ANSTEORRA

By

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CHAPTER 1: INTRODUCTION

It is a maxim of the human condition to emulate success. In all endeavors of life, humans study the habits, cultures, and peccadilloes of individuals who exceed those around them. They write articles, books, and manuals, as well as create programs in an effort to teach themselves and others the secrets of success. This thesis is an extension of that activity, being a study of a world-wide medieval recreation group, focusing on one particular region, with the twin goals to determine if there is a spatial relationship to becoming successful and if there are any spatial patterns in membership, both demographically and geographically. Additionally, this research will provide a look at an historical recreation group from a perspective seldom presented - that of a trained geographer.

To preview, this thesis first provides a limited description and background into the medieval recreation group in an effort to aid understanding of the research to follow. After some insight into the group has been attained, there is a statement of the problem and explanation of why this thesis is important both to geographers and to the members of this group. The specific research questions of the thesis follow the reasoning for it, which are in turn trailed by a brief outline of some of the research limitations. Next is an abbreviated list of terms used throughout the text and their definition, to alleviate the need to constantly look up frequently used terms in the glossary. The last section of chapter one will detail the sources of the data used in the research.

Chapter two reviews some of the available literature on research done into various social, historical, and environmental groups in an endeavor to show what kinds of methods can be employed to study a medieval group. The third chapter explains the methodologies applied to the investigation of the group. Chapters four and five detail the in-depth study of the medieval group by answering geographical and non-geographical research questions. The final chapter, six, summarizes the thesis by stating the conclusions and offering possible avenues for future research in the area.

BACKGROUND

The Society for Creative Anachronism (SCA) is an international non-profit educational group dedicated to researching and recreating pre-seventeenth century European history, an era commonly known as the Middle Ages. As an anachronism is something taken out of its place in time, the SCA is selectively recreating skills, activities, and cultures from pre-seventeenth century history in the modern era. The SCA was incorporated in 1968, but the group marks its beginning on May 1, 1966 when a group of friends in Berkeley, California threw a medieval alternative to the common toga party. The party still continues today.

The Knowne World (Figure 1) of the SCA is divided into seventeen kingdoms that span the globe and are based in North America, Europe, and Australia. Even though the kingdoms are autonomous, they all must follow a set of rules laid down in Corpora, the overall written policy for the SCA, which is governed by the Board of Directors of the SCA, Inc. Each kingdom is divided into principalities, baronies, provinces, shires, cantons, colleges and strongholds depending upon their location and number of paid

THERE BE SEA MONSTERS HERE

AMBER SEA

PALATINE BARONY OF THE FAR WEST (WEST)

BARONY OF THE WESTERN SEAS (CAID)

OCCIDENTAL OCEAN

PRINCIPALITY OF LOCHAC (WEST)

PRINCIPALITY OF OERTHA (WEST)

WEST

SOUTHRON GUARD (CAID)

PR. MISTS

CAID

PRINCIPALITY OF CYNAGUA (WEST)

GREAT DESERT

PRINCIPALITY OF THE SUN

ATENVELDT

PRINCIPALITY OF ARTEMISIA

AN TIR

OUTLANDS

SOUTHERN JUNGLES

ANSTEORRA

MIDDLE

CALONTIR

MERIDIAN GULF

UNKNOWN LANDS

MERIDIES

PRINCIPALITY OF EALDORMERE (MIDDLE)

TRIMARIS

ATLANTIA

PR. AETHELMEARC

EAST

ORIENTAL OCEAN

SOUTHERN OCEAN

UNKNOWN LANDS

GREAT DESERT

PRINCIPALITY OF DRACHENWALD (EAST)

UNCHARTED WATERS

THERE BE MONSTERS HERE

UNKNOWN LANDS

1992 C.E.

Figure 1. Map of the Knowne World (Stewart 1992).

members. One of these kingdoms is the Kingdom of Ansteorra, comprised of Oklahoma and Texas (except the portion of Texas in the Mountain Time Zone). Ansteorra currently has forty-two local groups (Table 1), of which thirteen are baronies, nineteen are shires, seven are cantons, one is a college, and two are incipient groups. As one might surmise, the baronies (larger groups) typically coincide with larger metropolitan areas, shires with cities, and the smaller cantons and colleges with towns or educational institutions (Figure 2).

The geographical area within each kingdom is determined by zip codes. When members pay their yearly fee, their zip code is filed in a database. The database sorts the memberships by kingdom and then breaks them down by group (Figure 3). The SCA associates each member with the group closest to the member's zip code, regardless of where they decide to participate in local activities. Since the post office can change zip codes at will, every few years the kingdom investigates all the zip codes and reassigns them so the group boundaries appear less gerrymandered. They also handle any zip codes that may have changed location and other such anomalies.

Each kingdom is ruled by a King and Queen (the Crown), chosen through a "chivalric" style tournament every four to six months (depending upon the kingdom). These tournaments, which are fought on foot rather than horseback, are the recreations of medieval knights fighting each other with swords and shields, among other weapons. Every person who enters the tournament must have a consort willing to rule with them if they should win. The winners of this tournament, called Crown Tournament, will be the Prince and Princess for a period of time, until they are crowned King and Queen.

Branch	Status	Region	City, State
Adlerrsruhe	Shire	Western	Amarillo, TX
Bjornsborg	Barony	Southern	San Antonio, TX
Blacklake	Shire	Western	Midland/Odessa, TX
Bonwicke	Barony	Western	Lubbock, TX
Bordermarch	Barony	Coastal	Beaumont, TX
Brad Leah	Shire	Northern	Wichita Falls, TX
Bryn Gwlad	Barony	Southern	Austin, TX
Chemin Noir	Canton (Northkeep)	Northern	Bartlesville, OK
Crossrode Keep	Shire	Western	Big Spring, TX
Dragonsfire Tor	Canton (Elfsea)	Central	Stephenville, TX
Eldern Hills	Barony	Northern	Lawton, OK
Elfsea	Barony	Central	Fort Worth, TX
Emerald Keep	Shire	Central	Waco, TX
Ffynnon Gath	Shire	Southern	San Marcos, TX
Gates Edge	Shire	Coastal	northern Houston, TX
Glaslyn	Canton (Steppes)	Central	Denton, TX
Greywood	Shire	Coastal	Nacogdoches, TX
La Marche Sauvage	Shire	Coastal	McAllen, TX
Lindenwood	Canton (Steppes)	Central	Irving, TX
Loch Ruadh	Canton (Elfsea)	Central	Weatherford, TX
Loch Soilleir	Barony	Coastal	Clear Lake, TX
Mendersham	Shire	Western	Abilene, TX
Middleford	Shire	Southern	Killeen, TX
Mooneschadowe	Shire	Northern	Stillwater, OK
Namron	Barony	Northern	Norman, OK
Northkeep	Barony	Northern	Tulsa, OK
Ravens Fort	Barony	Southern	Huntsville, TX
Rivers Run	Canton (Wiesenfeuer)	Northern	Ponca City, OK
Rosenfeld	Shire	Central	Tyler, TX
Seawinds	Shire	Coastal	Corpus Christi, TX
Shadowlands	Shire	Southern	Bryan/College Station, TX
Stargate	Barony	Coastal	central Houston, TX
Steppes	Barony	Central	Dallas, TX
Stonebridge Keep	Shire	Coastal	Victoria, TX
Tempio	Shire	Southern	Temple, TX
Thuein	Incip Shire	Southern	Kerrville, TX
Tir Medoin	Incip Canton	Southern	Rockdale, TX
Trelac	Shire	Western	San Angelo, TX
Twr Cath	College	Coastal	central Houston, TX
Wastelands	Shire	Northern	Enid, OK
Westgate	Canton (Stargate)	Coastal	western Houston, TX
Wiesenfeuer	Barony	Northern	Oklahoma City, OK

Table 1. Local groups in Ansteorra, their status, region, and city.
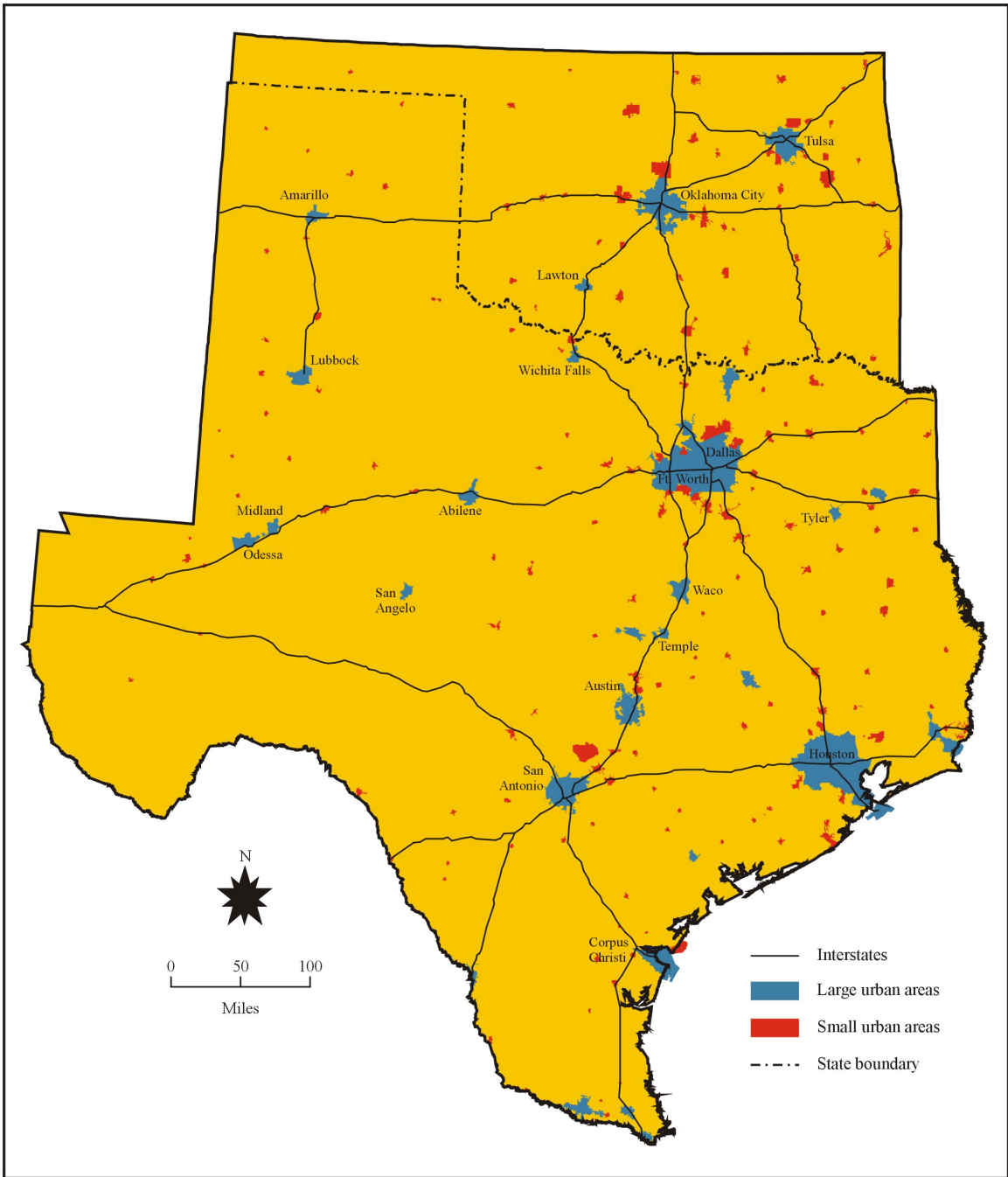
Figure 2. Map of Ansteorra showing interstates, urban areas, and state boundary.

The map legend shows:
- Interstates
- Large urban areas
- Small urban areas
- State boundary

Cities labeled on the map: Tulsa, Amarillo, Oklahoma City, Lawton, Lubbock, Wichita Falls, Dallas, Ft Worth, Midland, Abilene, Tyler, Odessa, San Angelo, Waco, Temple, Austin, Houston, San Antonio, Corpus Christi

Scale: 0, 50, 100 Miles
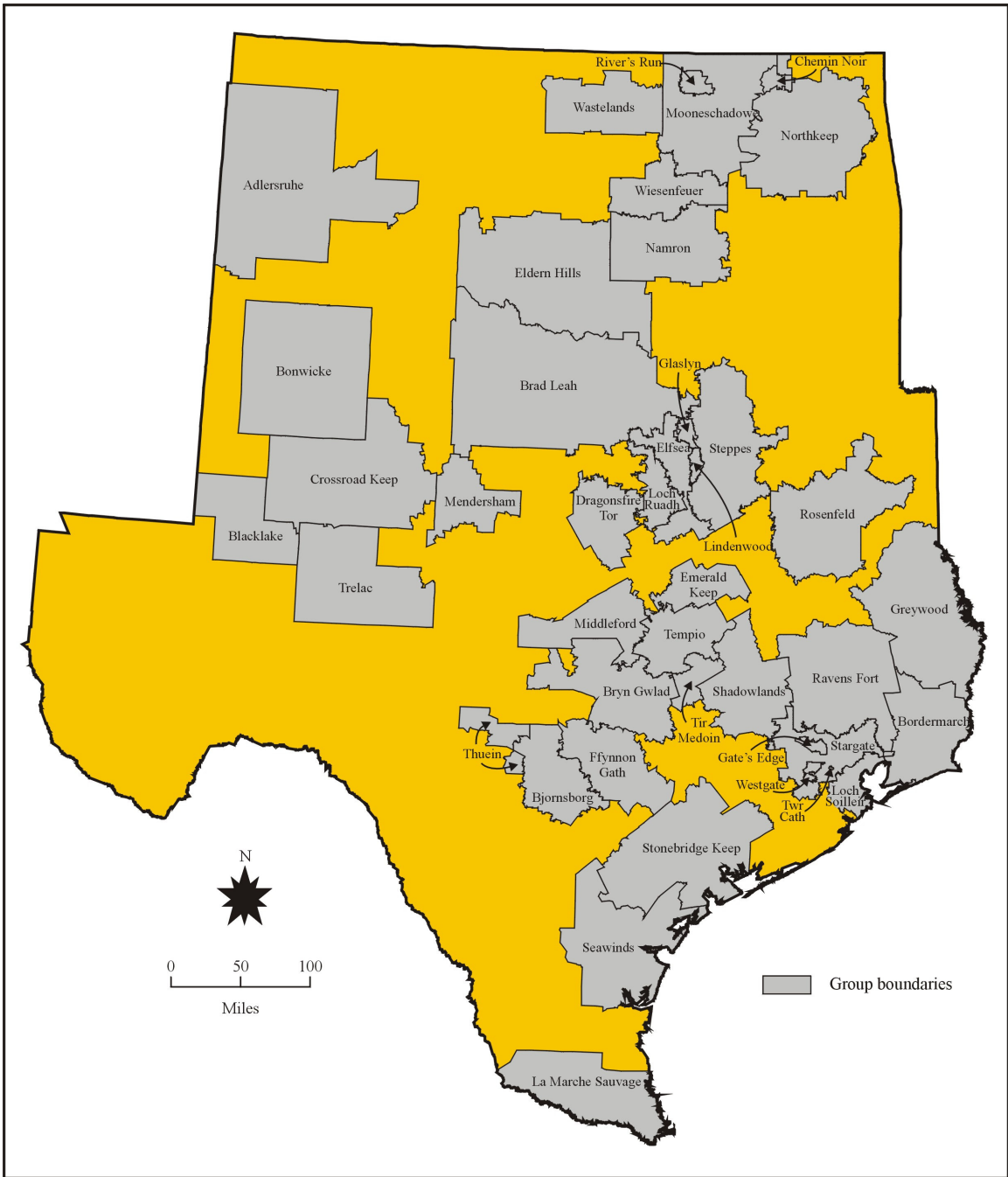
Figure 3. Map of Ansteorra showing the group boundaries.

The King and Queen can modify or supplement Kingdom Law, unless there is a conflict with Corpora. Kingdom Law is the set of rules and regulations governing the individual kingdoms; basically, a sub-section of Corpora. One of the most important duties of the King and Queen is to recognize people in the kingdom for their achievements by giving them awards based upon their skills in the arts and sciences, service, or fighting. The Crowns also serve as the final judges in disputes or disciplinary actions within their kingdoms. However, the King and Queen have no legal authority in the modern world. They are figureheads for the people who play, or participate, in the SCA. A common adage among Crowns is, "You rule because they believe."

Principalities and baronies are the only smaller divisions of a kingdom that have a representative of the Crown at their head. Principalities are ruled by Princes and Princesses (chosen by a coronet tournament) who have similar privileges and responsibilities as the Crown, but on a smaller scale. Baronies are ruled by a Baron and Baroness who are chosen by the Crown to represent them and hold the land in fief for them. Baronies are usually larger groups, with seventy-five to one hundred (or more) members. As a perk for holding land in the name of the Crown, Barons and Baronesses can also hold court and give out awards. Similar to the Kings and Queens, the Barons and Baronesses are figurehead authorities in charge of local groups without any legal authority in the modern world. The other smaller divisions of a kingdom (provinces, shires, cantons, colleges, and strongholds) typically have fewer paid members than principalities or baronies (Figure 4).

There is also an established bureaucracy within each kingdom, composed of kingdom-, regional-, and local-level officers. The kingdom-level officers answer only to
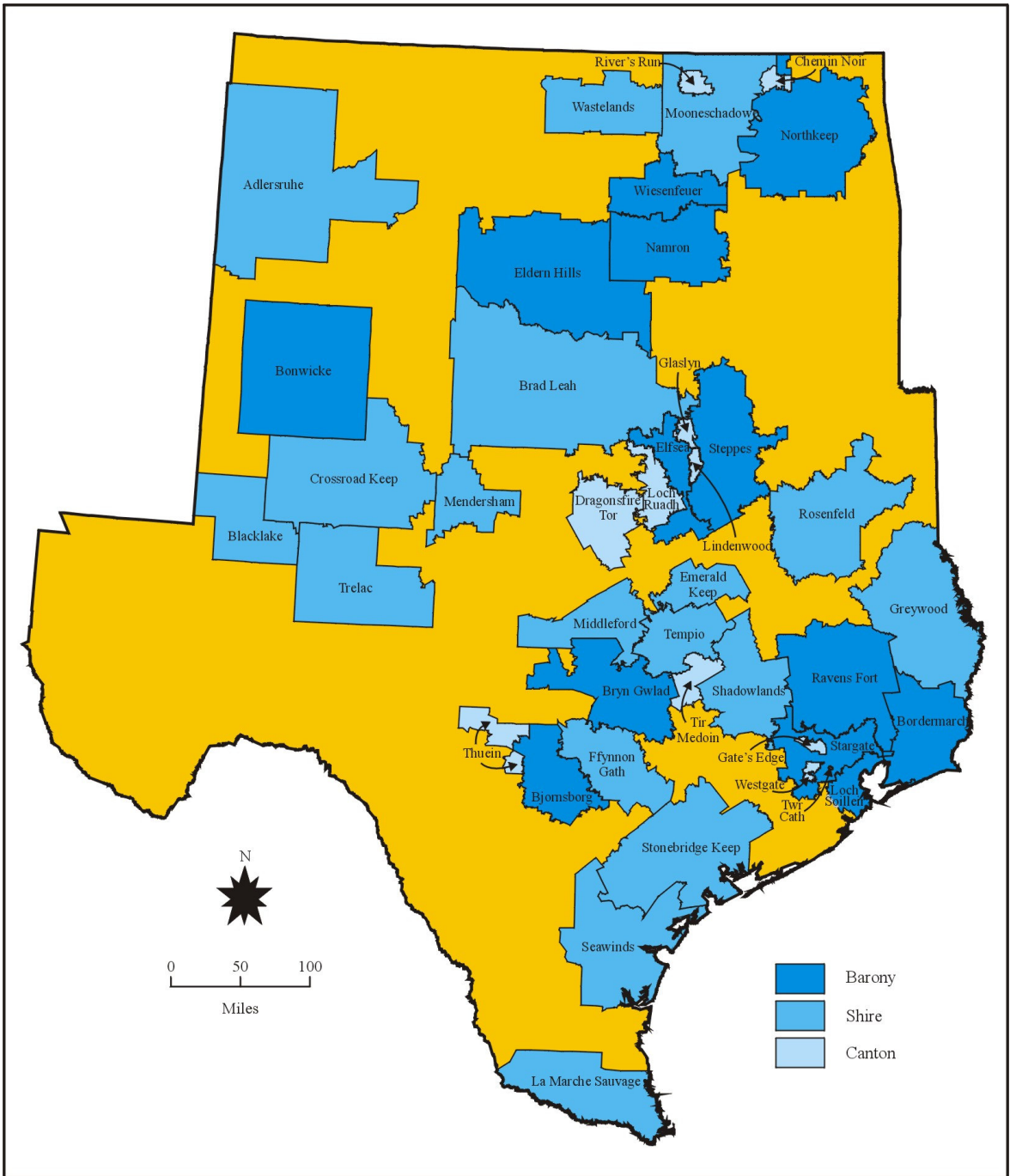
Figure 4. Map of Ansteorra showing the status of each group.

the Crown and their corporate-level superiors. Regional officers oversee five to eight groups and report to their kingdom superior, and local officers report to the regional officers. All of these officers are appointed to their positions based on individual merit after an open application process. The most important officer in the SCA is the seneschal. Similar to a president of an organization, the seneschal acts as the chief administrative officer and is the SCA's legal representative to the modern world. It is the seneschal, not the Crown or the Baron and Baroness, who legally represents the SCA to the common-era world.

As stated earlier, one of the benefits of being Crown is being able to give people awards. Awards in the SCA are used to recognize individuals who have excelled in the skills and research of the Middle Ages. There are three levels of awards, Peerage, Grant, and Award of Arms (AoA).

A peerage is the most prestigious award someone in the SCA can attain. Peerages are typically a polling order, meaning the current members of the peerage can make recommendations to the Crown about prospective new members. Each peerage meets at least once a reign in meetings (circles) to discuss candidates and other business of the kingdom. However, the Crown does have the final say as to whether they will grant the peerage, and there have been times when the Crown has gone against the opinion of the circle and bestowed a peerage regardless of the vote. Peerages are broken down into three separate orders: the Order of the Chivalry, the Order of the Laurel, and the Order of the Pelican.

The Order of the Chivalry consists of Knights and Masters of Arms. The Crown chooses members of this order after consulting with the chivalry to ensure that candidates

have the necessary qualities of courtesy, graciousness, and skill at arms. Knights swear fealty to the Crown and are entitled to wear a white belt. They also wear an unadorned gold chain around their neck as a symbol of their fealty to the Crown (Figure 5). The title

Figure 5.

"Master of Arms" is used by those members of the chivalry who choose not to swear fealty. These members of the chivalry are equal in rank to knights, but they wear a white baldric (a belt hung over a shoulder), and do not usually wear a chain of fealty. A Master of Arms may choose to swear fealty to individual Crowns, and is then able to wear a chain about their neck. The Order of the Chivalry recreates the hand to hand combat of medieval knights with rattan (solid bamboo) weapons and leather or metal armor.

Members of the Order of the Laurel are chosen by the Crown after consultation with the rest of the order for their great skill in the arts or sciences, for their willingness to teach others, and for using their abilities to benefit their kingdom. Their insignia is a medallion depicting a plain

Figure 6.

green laurel wreath (Figure 6). Laurels recreate the day to day activities of the Middle Ages. They make clothing, food, and accessories to help create a more period atmosphere for events or meetings.

Members of the Order of the Pelican are chosen because of their history of service to their kingdom, usually for many years and without thought of reward. A Pelican can be recognized by a medallion representing a pelican in its piety hanging around their neck (Figure 7). As with the other orders, they are chosen by the Crown in consultation with

other members of the order. Pelicans typically are always seen helping at events or taking offices in the SCA. They serve in whatever capacity is needed, be it to clean the toilets, serve a feast, or coordinate an event.

Figure 7.

The grant-level award is next in the Order of Precedence (OP) of the SCA. In Ansteorra, there are several grant-level awards, most of which are also polling orders. Similar to the peerages, grant-level awards are given to people who have shown skill and diligence in combat, as artisans, or in service to their region or kingdom. Grant-level awards are often seen as a "stepping stone" to a peerage.

The Award of Arms (AoA), is the introductory award in the Society. Usually given after a year or two of playing, an AoA award is bestowed to recognize participation and to encourage new members, as well as to keep them coming back for more. Most recipients of this award have shown limited knowledge of the SCA and a willingness to dress in medieval clothes.

PROBLEM STATEMENT

Humans study success in order to identify habits or traits of successful people and to acquire such traits. The purpose of this study is to determine if there is a spatial aspect to success in the Kingdom of Ansteorra and to ascertain what the factors of success are by correlating them with geographic information. This thesis is a foray into the search for success, and attempts to quantify what factors, especially those of a geographical nature, contribute heavily to success in the kingdom. By identifying successful people in Ansteorra (peers and past Crowns) and comparing them to their location, any

geographical factors to success can be revealed. Once revealed, these factors can be utilized by new members or those seeking improvement, in an effort to become more successful.

This success can be based on how much a person interacts with successful people, or there can be other measurable geographical and statistical reasons as to why some people and groups are more successful than others. In addition, there could also be a spatial aspect to the phenomena. By understanding how membership and success are spatially influenced in the SCA, geographers can determine how similar variables will influence other sub- or popular cultures (in addition to other historical or recreation groups) and have a baseline for future studies. To answer this, the following research incorporates methods used by geographers to study other cultural groups and organizations. Some examples are the Freemasons and Civil War reenactment groups, which have been studied by using spatial analysis and GIS.

The main beneficiaries of this research are members of the SCA. Participants will be capable of applying this research to their own involvement with social organizations in an effort to improve their chances of becoming successful. In addition to being advantageous for Ansteorra, the research will also benefit the discipline of geography in ways similar to research done on other cultural groups, organizations, and social clubs. Geographers are always trying to determine not only where people do things, but why, and how things are different between different places. Determining these things is only one of many ways in which this study benefits geography.

RESEARCH QUESTIONS

The rationale of this thesis is to determine if there are any spatial relationships to membership or success in Ansteorra. To do this, several hypotheses have been postulated that pinpoint certain areas to study, both of a geographical and non-geographical origin:

Geographical Research Questions

1. What role does distance play when a Crown chooses and elevates peers? Many people believe that distance from the Crown plays a major role in a candidate's possible elevation to a peerage. The conventional wisdom is that the closer people are to the Crown, the more likely the Crown is to know them personally and be comfortable in elevating them to the status of a peer.

2. Is there a correlation between who wins a Crown Tournament and how far they traveled to the tournament? Even though Crown Tournament has rotated among the five regions in the kingdom for the past six years, there are still more Crowns from the Southern and Central regions than any other. Is this due to the larger number of paid members in those areas, or is it due to a shorter travel distance required to reach all of the Crown tournaments?

3. What is the average distance that people travel within and without of their region (Figure 8)? Does it differ according to which awards a person has received? An overwhelming belief in the SCA is that you must travel in order to be recognized by the peers and eventually be made one yourself. If the other members of the order do not see a prospective peer at many events, they will not think that the person should join their order.
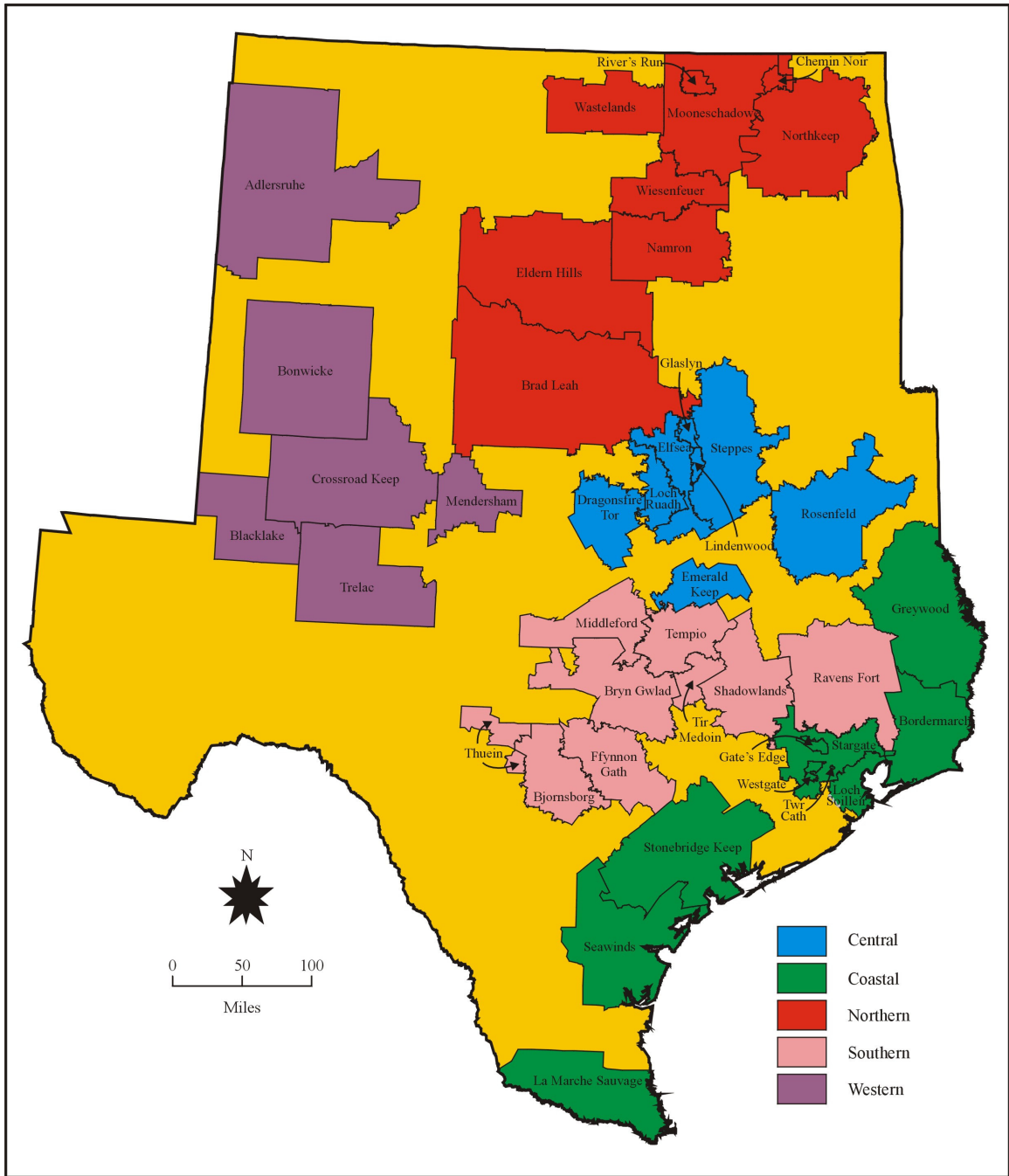
Figure 8. Map of Ansteorra by region.

Non-Geographical Research Questions

4. What socioeconomic variables can be used to determine if someone will join the SCA or not? If you ask any member of the SCA what the typical personality of an SCA member is, the answer is often the same. The typical SCA person has some combination of the following traits: was a "loner" in high school, reads Science Fiction/Fantasy books (among many others), currently plays or has played a role-playing game, is computer savvy, is in the military or ex-military, and is idealistic. Not only do these personality traits foretell who will likely join the SCA, there could also be socioeconomic traits that would as well.

5. How does the Location Quotient of peers and royals in groups with a large number of members compare to groups with fewer members? To be successful in Ansteorra, does a person have to be near other successful people, or is being a member of the kingdom enough? If a person needed to be near other successful people, which groups would offer the greatest chance of success or award progression? All of these things are important to know if you want to be a successful member of the SCA.

6. To what extent does the number of knights in a group influence whether a member of the group wins Crown? With a large number of chivalry in a group, it is plausible to expect that the fighting level of that group would be higher than the collective fighting level in a group that did not have any chivalry.

7. What impact does the average annual income of a group's geographical area have on the number of peers and royals in that group? A participant with a larger income would have more money to spend on the SCA, which means that they can afford to travel more often and farther, and afford new and more elaborate accoutrements and appropriate paraphernalia. This could mean that the average annual income for a group's geographical area could possibly have an influence on the number of peers and royals in that group.

RESEARCH LIMITATIONS

One of the biggest limitations of this study is the lack of precise information about where all of the peers lived. While able to make an educated guess as to which group each peer resided in when elevated, it is difficult to determine a more exact geography, such as a zip code. Some of the peers have not participated in the SCA for years and few people remember who they are or where they live. Also counting those people as current members of the SCA can be considered misleading. With a more precise location for the peers as there is for the past twenty Crowns, the results of the thesis may be significantly altered.

Another possible problem with analyzing the peers is the difficulty in selecting their group. Even though many of the peers have relocated over the years, they are still attributed to the group in which they lived when elevated. For example, the number of paid members as of December 31, 2003 is utilized when calculating the LQ for each group but the total number of peers in the analysis dates from 1979 (the date of birth of

the kingdom). This is without regard to the actual number of peers currently residing in the group or whether they are active or not.

The average annual income of the group's geographical area being used to determine the status of SCA members is yet another limitation. It would be much better if the average annual income for each person in the SCA could be determined, rather than use the income for all 50,000 people in the area.

DEFINITION OF TERMS

The following are a few of the terms that are used profusely throughout the text, defined here to aid in understanding the research. A complete glossary can be found in the appendix.

Awards – given to people who have gone above and beyond the average person in their skills and research of the Middle Ages.

Award of Arms (AoA) – the introductory award in the SCA. Usually given after a year or two of playing to those who show basic knowledge of the society and to recognize participation while encouraging new members.

Circle – a meeting of an order to discuss potential candidates and other business.

Crown – the King and Queen of a kingdom. Also used to refer to the tournament that is held to determine who will be the next King and Queen.

Event – an SCA gathering, usually with a special medieval theme. Events can be held indoors at a variety of sites or at campgrounds.

Grant – the mid-level award in the SCA. Given to those who have shown great promise in combat, the arts and sciences, or service.

Order of Precedence (OP) – A listing of all the individuals in a kingdom that have received an award to show who is higher in rank.

Peer – a person in the SCA who has been granted a peerage (Chivalry, Laurel, or Pelican).

Peerage – the highest level of award in the SCA. Peers are Masters or Mistresses in their activities, be they fighting, arts and sciences, or service.

DATA SOURCES

The data for this study is compiled from many different sources. The information for the database of all the peers, their elevation date (when they were made a peer), and the Crown that elevated them is extracted from Ansteorra's OP. The group in which they lived when elevated is also determined from the OP by looking at what service awards the person has and which group the awards are from. If the peer has a service award from more than one group, and the group they were from is still unknown, an e-mail was sent to the Ansteorran e-mail list asking if anyone knew. By completing these steps, the home group for all the peers except one was determined. The one unknown peer is placed in the generic Crown Lands group.

A similar procedure is utilized to show which group the Crowns were affiliated with and the date they were coronated. The number of persons each Crown elevated to peerages while Crown was extracted from the OP. In addition, the historical Kingdom booklets from the Tenth and Twentieth Year Anniversary celebrations were consulted to determine the location of the Crown Tournament they won. The location of the past

twenty Crowns (the study group for the questions involving Crowns) were ascertained by consulting the monthly kingdom newsletters (Blackstars) for the past ten years.

The OP and the anniversary booklets were also utilized to gather data about the various groups. Paid membership numbers for each group since 1992 were solicited from a past kingdom seneschal who keeps the information on his private website. The number of peers for each group was determined by looking at the aforementioned peerage database. All of the census information for each group is aggregated from the US Census Bureau statistics by zip code.

The shapefiles of events are created from data found in the Blackstars for the years 2002 and 2003. For many of the events, the zip code could be copied directly from the Blackstar. For others, the city or area in which the event was being held could be looked up on the United States Postal Service website and the zip code determined from there. If the zip code was not in the zip code centroid shapefile, the closest city was found and its zip code used. If the event announcement in the Blackstar did not have a stated location, the zip code of the event from an earlier year or another event the group held was applied, assuming that many groups hold their events at the same site.

A third source of data is from a questionnaire that was created and posted to a website before being announced on the Ansteorra e-mail lists and forwarded to many other lists throughout the kingdom. In this questionnaire, respondents were asked for their zip code, the awards they held in the SCA, the events they attended in 2002 and 2003, what local activities they participated in during the week, and if they were a paid member of the SCA. From the 596 people subscribed to the Ansteorra e-mail list, and an additional 1,218 on the Ansteorra-Announce e-mail list, 383 responses to the

questionnaire were received. Seven were discarded since their zip code is not in the kingdom or was incomplete, leaving 376 useable responses. Of those useable responses, only 363 had traveled to events and could be used to answer the question about travel patterns in the kingdom.

An outgrowth of this research is an observation on the number of paid members in the kingdom. One of the most interesting aspects of the SCA is that you do not have to pay for a membership (about $35/year) in order to participate. People interested in recreating the Middle Ages do not have to become members to do so. Membership is only required to hold an office, including being Crown. Due to this feature of the SCA, there are many people who have been playing for years who are not currently members, so there is no way to tell exactly how many people actively participate in the kingdom. It is theorized that non-members are three to four times greater than the number of members.

In order to get a more accurate number of how many people play in the SCA, not just the paid members, the last question of the survey asked if the person answering was a paid member of the SCA. Out of 378 respondents, 305 said 'yes' and 73 said 'no'. This showed that 80.7% of the people who responded to the survey are paid members. Interestingly enough, the corporate level of the SCA recently conducted a study on membership also. Out of 7,403 responses to their survey, 6,142 are members and 1,261 are non-members, showing that 82.9% of the people that responded to their survey are paid members (www.sca.org). Since the respective percentages are so similar, it can be concluded that they are an accurate reflection of participation percentages, and that there are more paid members than unpaid, which is contrary to popular belief in the SCA.

Conversely, those who pay for memberships are also more likely to be involved, or be able to afford, internet access and, therefore, access to the mailing lists which announced these surveys.

CHAPTER 2: LITERATURE REVIEW

There have been few studies of a geographical nature on living history groups. Even fewer studies about the SCA and the spatial patterns and demographics of its members exist. Fortunately, however, there is more research and literature available on similar organizations such as service clubs, sports groups, and environmental organizations from which methodologies can be drawn to study the SCA.

There are two main types of living history groups: re-enactors and re-creators. Erisman (1998) delimited the differences between the two, suggesting that reenactments are usually performed to "depict battles and other carefully recorded moments in time," as well as "attempt to exactly reproduce a particular historical situation. Re-creations, on the other hand, try to capture the more abstract ambiance of a general historical milieu." Another version of these definitions is that SCA members re-create history for themselves, whereas re-enactors are acting out history for the entertainment of others (Rodwell 1998).

Both Rodwell and Erisman theorize on why people join the SCA to re-create the Middle Ages. According to Rodwell (1998), people in the SCA try to re-create "an idealized Middle Ages which in turn allows them to recreate themselves in an idealized form." Along a similar line, Erisman (1998) believes that participants in the SCA "often seem more concerned with escaping the present." As a participant in the SCA myself, I also have observed this in members of the SCA. There are many people who are not content with their mundane lives due to their current jobs or social situations. These same people put that all behind them when going to SCA events and become completely

different people. Some people are happier when playing in the SCA than they are in their normal lives, as their persona (character assumed by an SCA participant (Henford 2004)) has a higher social status or is more respected than in real life. This can cause all sorts of psychological and sociological problems and would be a good basis for a dissertation in those fields.

Allred (1996) and Hall (1994) have both studied living history groups that reenact the Civil War. For re-enactors, authenticity seems to be the focal point. When everything around you, either as a re-enactor or as a member of the audience, is from the Civil War era, it is easier to create the illusion that you are actually in the nineteenth Century and re-enacting actual historical events (Allred 1996).

In a rudimentary study of Civil War re-enactors, Hall (1994) examined members of Civil War groups and where they lived, which was mainly east of the Mississippi River and in the South. While lamenting the lack of satisfactory demographic analysis by others, Hall (1994) made a brief study on the demographics of members in the Civil War groups and determined that "reenacting appears to be a remarkably democratic enterprise with respect to social class, if not race and gender."

Fortunately, there have been a small set of studies done of the SCA and its members, usually for a thesis or dissertation. One such study was conducted by Cary Lenehan (1994), a sociologist who observed the SCA in an effort to determine the demographics of people who would join living history groups. To accomplish this, he distributed a questionnaire in both Australia and California to members of the SCA, as well as collected data on "economic, cultural, educational, and symbolic capital held by members" (Lenehan 1994).

Lenehan discovered that the SCA is "not composed of a random collection of individuals. It is a part of a taste culture" (Lenehan 1994). Other leisure activities which many SCA members participate in are "science fiction, computers, and gaming" (Lenehan 1994) in addition to "equestrian sports, hiking groups, and other medieval re-creation groups" (Lenehan 1994). He also goes on to conclude how important the SCA is to many of its members, inasmuch that they describe their social network as a family. Lastly, Lenehan "indicates a basic desire amongst the members for a level of courtesy that they do not necessarily find in a mundane world."

Service clubs, as a class of organizations, have some similarities to living history groups. People who join service clubs do so for four main reasons: altruism, concern for their community, socialization, or in order to increase profits and develop business contacts (Wikle 1997). Service clubs sponsor many community programs such as park construction, youth groups and charities, and underwriting scholarships (Wikle 1997, 1999). Wikle (1999) has studied a specific service group, Kiwanis International, as well as the expansion of American service clubs internationally.

To conduct this research on the SCA, methods similar to those used in the study of the Kiwanis service club were implemented. Zip code information for both members and meeting locations are collected from the Kiwanis International corporate office and then aggregated to county and state levels by using the Location Quotient (Wikle 1997). Those counties that displayed a high or low Location Quotient (LQ) are then further analyzed using census data in an effort to develop a profile of the type of person who would join Kiwanis International.

Another service club that has been studied recently is the Freemasons. Monroe and Comer (1999) used many different types of statistics to scrutinize the demographics and socioeconomic characteristics of Freemasons in Oklahoma. Many of their ideas, specifically using correlation and regression statistics to study a social group, inspired this research.

Sports groups can also be studied in a geographical venue from a perspective similar to service clubs and living history groups. In 1999, David Robertson published a study on recreational storm chasers in the Great Plains. He specifically reported the distance and destination of trips taken during a typical storm-tracking season. The methods he used can be adapted to study the SCA by substituting event travel details, where individuals live, how far they travel to events, and to what type of event during a typical tourney season.

Besides the above organizations, environmental organizations have also been recently researched and written about. Akin to the studies done on service clubs, members of environmental organizations can be mapped by zip code, and then the demographic data can be used to forecast where the organizations should focus their membership drives (Wikle 1995a, 1995b). In addition to the Location Quotient, the coefficient of localization can be used to "provide a summary measure of the spatial concentration of membership relative to the distribution of population within each state" (Wikle 1995b).

Even though there is not much research being conducted on the spatial patterns and demographics of members in the SCA, there are studies done on similar organizations and groups. The methodology used in these studies can be used to analyze

the SCA to establish if there are any geographic patterns in their membership or travels,

or if specific demographic variables can be used to anticipate what type of person would

join the SCA in order for the society to focus membership drives in those locations.

CHAPTER 3: METHODOLOGY

An important part of this research project is creating the initial database of peers and past Crowns in the kingdom (Table 2 and 3). This is also fairly difficult and time-consuming. By looking through the OP, a list of all the peers that had been elevated can be found, as well as all of the Crowns that had reigned in the kingdom. In the final version of the database, some of the people are listed more than once, depending upon how many peerages they have or how many times they have reigned. In addition, the OP also has the date each person was elevated and by which Crown.

The hardest part of creating this database is ascertaining which group the peer was from when they were elevated. Some of the peers and royals are well known and could be asked where they had lived when they were elevated. For the lesser known success stories, the OP can be queried to track down which groups the person has a service award from, assuming that the person lived in the group they had served. The completely unknown peers and royals were asked about on the Ansteorra e-mail list. By completing these steps, all but one of the peers and royals were tagged to the appropriate group. The remaining peer was placed in the Crown Lands group.

The next database to create listed all the events in the kingdom during the years 2002 and 2003. To accomplish this, a list of all the events was compiled by looking in the Blackstars from those years. Once the event list was assembled, each zip code could be looked up to determine where the event was held. Some of the event advertisements have the zip code listed, but others just have the name of the site or directions to it. For these, an online mapping website was queried to find the closest

Table 2. Example of the database of peers.

Name	Group	Region	Crown	Elev_Date	Peerage
Aaron McGregor	Blacklake	Western	Jean Richard II & Gladwen	5/23/1998	Knight
Aaron McGregor	Blacklake	Western	not applicable	1/12/2002	King
Abd al-Mahdi Jamal ibn Hakim	Steppes	Central	Kein I & Alisha I	1/8/1994	Knight
Abd al-Mahdi Jamal ibn Hakim	Steppes	Central	not applicable	1/18/1997	King
Adelicia Tagliaferro	Steppes	Central	Seamus II & Karlanna II	1/9/1988	Pelican
Aeruin ni hEarain o Chonnemara	Namron	Northern	Seamus I & Karlanna I	1/4/1986	Laurel
Aethelstan Aethelmearson	Namron	Northern	Duncan & Larissa	10/13/2001	Laurel
Aethelyan (Adele of) Moondragon	Bryn Gwlad	Southern	Patrick Michael III & Julia III	4/18/1992	Pelican
Agripina Argyra	Bjornsborg	Southern	Timotheos & Allyson	8/5/2000	Laurel
Airaklee Wolf	Glaslyn	Central	Duncan & Larissa	1/5/2002	Master of Arms
Aislinn di Tanaleone	Bryn Gwlad	Southern	Simonn & Theressa	2/18/1984	Laurel
Aislynn Crystyn	Steppes	Central	Daffydd & Octavia	1/8/2000	Laurel
Alanna of Caer du Pard	Northkeep	Northern	Mikael II & Rebekka II	4/21/1990	Laurel
Alaric Drake	Elfsea	Central	Gunthar & Sara	3/6/1999	Knight
Alaric Drake	Elfsea	Central	not applicable	1/15/2000	King
Alexis la Bouche	Loch Soilleir	Coastal	Kein II & Alisha II	1/17/1998	Knight
Alexis la Bouche	Loch Soilleir	Coastal	Jason & Saereid	7/7/2001	Pelican
Alisandre Oliphant	Bjornsborg	Southern	Hector II & Rowan II	5/28/1988	Laurel
Alisha MacLeod	Bryn Gwlad	Southern	Mahdi & Valeria	5/25/1997	Knight
Alisha MacLeod I	Bryn Gwlad	Southern	not applicable	7/1/1993	Queen
Alisha MacLeod II	Bryn Gwlad	Southern	not applicable	7/26/1997	Queen
Alix Tiberga of Aachen	Namron	Northern	Galen & Rebekah	7/20/1996	Laurel
Allyson Tymmes	Elfsea	Central	not applicable	7/22/2000	Queen
Alrek Kanin	Wiesenfeuer	Northern	Kein II & Alisha II	10/11/1997	Knight
Alys Carvelsdatter	Elfsea	Central	Lloyd II & Jocelyn II	2/15/1982	Pelican
Anastacia Marie Travarra	Namron	Northern	William & Catherine	10/10/1992	Laurel
Anastacia Marie Travarra	Namron	Northern	Barn & Katrionna	9/26/1998	Pelican
Anastassia Mikhailovna Donskoi	Stargate	Coastal	Mahdi & Valeria	7/26/1997	Laurel
Anna Czulneja	Shadowlands	Southern	Sigmund I & Sieglinda I	2/7/1981	Laurel

Table 3. The Crowns and their information.

KING	QUEEN	ZIP CODE	GROUP	REGION	CORONATION	LAURELS	CHIVALRY	PELICANS	TOTAL	TOURNEY LOCATION	TOURNEY REGION	TOURNEY DATE	TOURNEY ZIP
Charles Inman McMoore VI	Athena Morcan Derwyn Ddoo II	76010	Elfsea	Central	1/1/1994	3	0	1	4	Rosenfeld	Central	11/13/1993	75789
Jean Richard Malcomson I	Anora of Winward	77489	Stargate	Coastal	7/1/1994	1	0	3	4	Bordermarch	Coastal	5/8/1994	75938
Mikael of Monmouthshire III	Mikaela of Monmouthshire I	73505	Eldern Hills	Northern	1/1/1995	3	3	1	7	Elfsea	Central	10/22/1994	76028
Patrick Michael Gordonne IV	Julia de Montoya IV	75604	Rosenfeld	Central	7/1/1995	5	1	3	9	Eldern Hills	Northern	4/22/1995	76305
Galen Eadwin Kirchenbauer	Rebekah Kleinspielerin	77089	Stargate	Coastal	1/1/1996	2	0	2	4	Rivertree	Coastal	10/14/1995	77905
Mikael of Monmouthshire IV	Mikaela of Monmouthshire II	73505	Eldern Hills	Northern	7/20/1996	2	1	1	4	Bonwicke	Western	4/20/1996	79322
Abd al-Mahdi Jamal ibn Ha	Valeria Richela Navarra	75216	Steppes	Central	1/18/1997	5	2	0	7	Wiesenfeuer	Northern	10/19/1996	73009
Kein MacEwan II	Alisha MacLeod II	78753	Bryn Gwlad	Southern	7/26/1997	3	7	5	15	Stargate	Coastal	4/12/1997	78956
Jean Richard Malcomson II	Gladwen of Aylesford	77546	Stargate	Coastal	1/17/1998	2	2	5	9	Northkeep	Northern	10/18/1997	77340
Barn Silveraxe	Katrionna McLochlainn	73160	Wiesenfeuer	Northern	7/12/1998	7	1	6	14	Raven's Fort	Southern	3/28/1998	75941
Gunthar Jonsson	Sara Penrose	75150	Steppes	Central	1/12/1999	3	2	3	8	Greywood	Coastal	10/24/1998	75938
Daffydd Whittaker	Octavia de Verdon	76354	Brad Leah	Northern	7/10/1999	3	1	4	8	Bryn Gwlad	Southern	4/17/1999	78653
Alaric Drake	Kayleigh Drake	76112	Elfsea	Central	1/15/2000	0	3	8	11	Mendersham	Western	10/16/1999	79556
Timotheos Kalamanos	Allyson Tymmes	76112	Elfsea	Central	7/22/2000	3	0	1	4	Loch Soilleir	Coastal	4/15/2000	77357
Jason MacPherson	Saereid Sigmunddottier	77546	Loch Soilleir	Coastal	1/31/2001	1	1	2	4	Brad Leah	Northern	10/14/2000	76351
Duncan Arthur Ross the Black	Larissa Alwynn Clarewoode	75006	Steppes	Central	7/7/2001	7	3	7	17	Emerald Keep	Central	3/3/2001	76705
Aaron McGregor	Britta MacGregor	79703	Blacklake	Western	1/12/2002	0	3	2	5	Tempio	Southern	10/6/2001	76513
Patrick Michael Gordonne V	Julia de Montoya V	75604	Rosenfeld	Central	7/13/2002	1	0	4	5	Bonwicke	Western	3/23/2002	79720
Miguel Sebasitan de Oporto	Conal Alexandria O'Riordain	75074	Steppes	Central	1/11/2003	1	1	0	2	Stargate	Coastal	11/2/2002	77351
Walstod the Unsteady	Cateau de Ardennes	77573	Loch Soilleir	Coastal	7/12/2003	3	1	1	5	Northkeep	Northern	5/3/2003	74467

city, followed by the United States Postal Service website to find the zip code for that city, all to determine the correct zip code for the event.

Once created, the databases could be converted into point shapefiles using the centroids in an existing zip code shapefile. To create a shapefile of the Crowns, all of the centroids that corresponded to a Crown were selected and saved as a separate shapefile with the attributes for each Crown. There were some Crowns from the same zip codes which were manually added in and there was also one where the King and the Queen were from different zip codes. For this instance, the Queen's zip code was used as the zip code for the Crown. Due to the availability of data, the study group is the past twenty Crowns, or ten years worth.

A similar procedure was done when creating the shapefile of Crown Tournaments. All of the zip code centroids were selected that corresponded to a location where Crown Tournament had been held and saved as another shapefile. To these, were added all of the attributes about the tournament, such as who won, where they were from, the date of the tournament, and the date of their coronation.

The next largest piece of data for this project was answers collected from an online questionnaire. The complete questionnaire can be found in the appendix, but questions 2, 3, and 4 in the questionnaire were used to gather evidence for the third research question in the thesis, and question twelve was asked so that an observation of how many paid members are in the kingdom compared to the non-paid members could be made. As a questionnaire sent to as many people in the kingdom as possible is the best way to collect all of the required information, an e-mail was sent to the Ansteorra Announce e-mail list explaining about the questionnaire and what would be done with the

answers. Recipients were asked to forward the message to other e-mail lists that were not on the Ansteorra Announce list in an effort to get the word out to as many people in the kingdom as possible. In this way, at least 1,814 people subscribed to the Ansteorra Announce e-mail list were solicited as respondents to the questionnaire, along with an unknown number from other lists.

Once the questionnaire had been created, it had to be put online, yet still keep all of the answers and respondents anonymous. To accomplish this, a computer programmer ran the first question (What is your SCA name?) through a one-way hash (MD5). A one-way hash is an algorithm that turns messages or text into a fixed string of digits, usually for security or data management purposes. The "one-way" part of the hash means that it is nearly impossible to derive the original text from the string. A one-way hash function is used to create digital signatures, which in turn identify and authenticate the sender and message of a digitally distributed message. By hashing the entries, the data can be reasonably assured of originality without compromising anonymity.

In order to answer the second hypothesis about travel patterns in the kingdom based on an individual's awards, knowledge was required of who traveled how much and what their awards were. Question two on the questionnaire asked for the respondent's zip code, which became the starting point for all of the networks showing how far people traveled in 2002 and 2003. The third question asked each respondent to select the awards they had received thus far in the SCA. Rather than list the hundreds of possible awards, only the three award levels (AoA, grant, peer) were listed, along with each category (fighting, arts and sciences, service) within each level. There were also selections for no awards and royal family.

The fourth question of the questionnaire asked each respondent to select all of the events they traveled to from January 1, 2002 to December 31, 2003. This list of events is the same as the events shapefile, so the events each respondent went to could be selected when running the networks in ArcView. The last question of the questionnaire is used to determine how many paid members there are in the SCA. Each respondent was asked if they are a paid member of the SCA and then the answers were used to determine a percentage of people in the SCA that are actual paid members.

All of the other questions on the survey are not used in this thesis, but are questions that could have been necessary. The information is relevant, can be used for further geographical studies of this kingdom, and might be interesting to Ansteorra.

To analyze all of the travel distances along networks in ArcView's Network Analyst, a script by Matt Jaffe was downloaded from the ESRI website entitled "Multiorigin to Multidestination." According to the author, this script "allows the user to select one point theme as origins and another as destinations, and find the shortest routes between all points in the two themes." It also allows the user to select a cost field, which was distance in miles for this study.

For the first two hypotheses in this thesis, the script was employed exactly as written. Networks were calculated from each point in the origin shapefile to all of the points in the destination shapefile and were therefore able to calculate the distance between all the points in miles. The third research question made use of the script a little differently. To answer this one, only the distance from one respondent in the respondent's shapefile to the events they traveled to in the events shapefile were required, not all of them. The same script was utilized to accomplish this task, but this time only

one point in the origin shapefile (respondents) was selected and prior to the events

traveled to in the destination shapefile (events). In this manner, the travel distances can

be calculated in Network Analyst for each respondent and only the events they traveled

to. Unfortunately, the process was rather time consuming as each of the 363 respondents

had to be selected, along with their corresponding events, one at a time.

The final methodologies used to complete this thesis are statistical in nature. To

answer questions 1 and 2, a one sample difference of means t-test was incorporated. This

is a statistical test that compares a sample mean to a population mean for difference when

the sample size is less than thirty (McGrew and Monroe 1993). The same t-test was

applied for question 3, in addition to a z-test and an ANOVA test. A z-test is the same as

a t-test, but for larger sample sizes. An ANOVA, or Analysis of Variance, test compares

three or more independent sample means for differences. This test was utilized to

distinguish if the travel distances derived in the third hypothesis are significantly different

for each award group.

A statistical program called SPSS was run to answer the fourth question in the

thesis. By running a regression, it could be determined if one of the socioeconomic

variables influenced or affected any other or if a functional relationship tied one variable

to another (McGrew and Monroe 1993). The appropriate variables could then be used to

explain a certain percentage of the people who join the SCA.

A measure of regional concentration of an activity, or a Location Quotient (LQ)

was implemented to answer question five. An LQ is a unitless value that shows if a

region is typical, has a deficit, or has a concentration of an activity compared to a larger

area. If the LQ is greater than one, there is a concentration of the activity in the region,

and if the LQ is less than one, there is a deficit of the activity in the region. An LQ equal to one shows that the region is typical of the bigger area, or that the group mirrors the kingdom in its number of peers and royals. The equations used to calculate the LQs for each group are as follows:

$$LQ_P = \frac{\dfrac{\text{\# peers in group}}{\text{\# people in group}}}{\dfrac{\text{\# peers in kingdom}}{\text{\# people in kingdom}}} \qquad LQ_R = \frac{\dfrac{\text{\# royals in group}}{\text{\# people in group}}}{\dfrac{\text{\# royals in kingdom}}{\text{\# people in kingdom}}}$$

$$LQ_T = \frac{\dfrac{\text{\# peers and royals in group}}{\text{\# people in group}}}{\dfrac{\text{\# peers and royals in kingdom}}{\text{\# people in kingdom}}}$$

A two sample difference of proportions test is used to answer question 6. This test "provides an alternative procedure to test for significant differences between two independent samples when the data are dichotomous (binary)" (McGrew and Monroe 1993).

To answer question seven, per capita income and the total number of peers and royals in each group were correlated. A correlation "provides a more objective, quantitative means to measure the association between a pair of spatial variables" (McGrew and Monroe 1993). If the correlation value is zero, then there is no correlation between the variables, but if it is negative one there is an inverse correlation (as one variable goes up, the other variable goes down), and if it is positive one there is a direct correlation (as one variable goes up, so does the other variable). The actual value of the

correlation can also determine how weak or strong the association is between the

variables. A correlation of 0.0-0.3 is weak, 0.3-0.7 is moderate, and 0.7-1.0 is strong.

CHAPTER 4: GEOGRAPHICAL RESEARCH QUESTIONS

WHAT ROLE DOES DISTANCE PLAY WHEN A CROWN ELEVATES PEERS?

The first analysis of this thesis focuses on the spatial distribution of peers and the Crown who elevated them. Many people believe that distance from the Crown plays a major role in whether a candidate will be elevated to a peerage or not. The conventional wisdom is that the closer people are to the Crown, the more likely the Crown will know the candidate personally and be comfortable in elevating them to the status of a peer.

By using the databases of peers and Crowns, two point shapefiles were created in ArcView. Since the exact address of all the peers is not known, the centroid of the group they lived in is applied for their geographic location. Similarly, the geographical location of all the Crowns is the centroid of the zip code in which they lived.

After creating the shapefiles, a script written by Matt Jaffe was downloaded from the ESRI website called Multiorigin to Multidestination. This, along with ArcView's Network Analyst and a NTAD highways shapefile is used to run networks between each group to each Crown, and from each Crown to the peers they elevated. This script allows the networks from each group to all twenty Crowns to be run at one time, rather than running each network individually, saving a lot of time. The resultant shapefile shows the shortest path as well as the distance from the center of each group to the center of the zip code in which each of the Crowns lived (Figure 9).

To analyze this data, it was exported to Microsoft Excel. Once there, each group is weighted by the number of paid members at the end of the year of the Coronation of
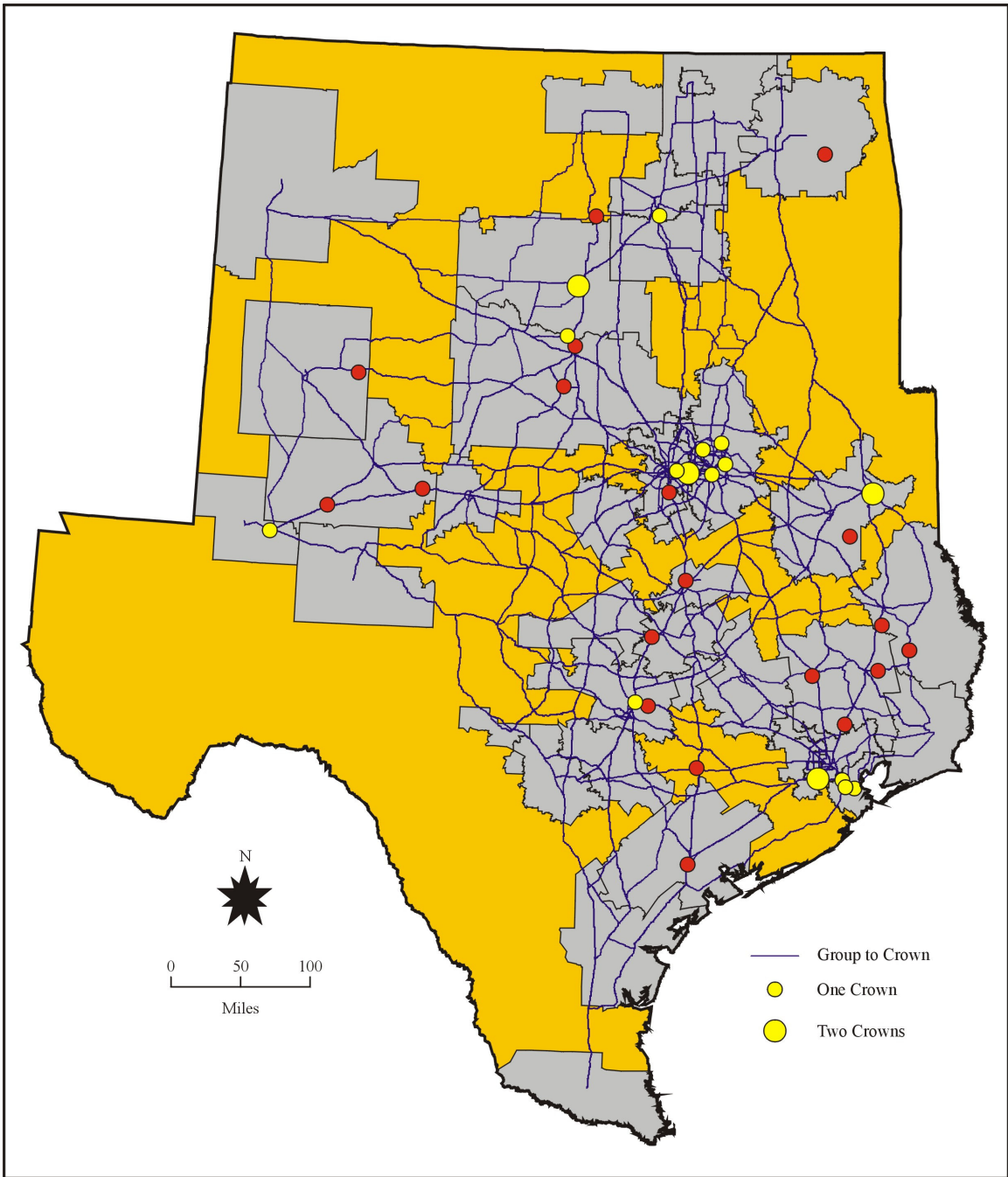
Figure 9. Map showing the networks from each group to the past twenty Crowns.

each Crown. This was done because that is the number of possible people who can travel to the Crown Tournament and have a chance of winning. For example, Charles Inman McMoore VI and Athena Morcan Derwyn Ddoo II were crowned on January 1, 1994, so the paid members for each group as of December 31, 1994 is used to weight the distance from each group to this Crown, coming up with a total membership count of 1,392 and a total distance from each paid member to this Crown of 285,018.88 miles (Table 4). After calculating these numbers for all twenty Crowns, the total number of members and miles was calculated over the past ten years to be 30,938 and 7,679,110.55, respectively. The average weighted distance from the center of each group to the Crown is 248 miles, the population mean for the spatial analysis.

Once the distance is obtained from each group to each Crown, the distance from each Crown to all the peers they elevated could be determined. This difference, if any, told whether the distance between the Crown and potential peerage candidates plays a role in their elevation by that Crown. The same networks generated for the group to Crown could be used, only this time each group was weighted by the number of peers elevated by that particular Crown. The total number of peers made in the past twenty reigns in Ansteorra is 146, with a total mileage of 32,691.15 from the Crown who elevated them (Table 5). This gives a sample mean of 224 miles from the Crown to the peers made by that Crown.

The difference between these two averages is 24 miles, which is tested to determine if it may or may not be statistically significant. A null hypothesis can be declared that the average distance of peers to Crowns is equal to the average distance of

CROWN	WEIGHTED DISTANCE	TOTAL MEMBERS	AVERAGE DISTANCE		
19940101	285018.88	1392	204.75		
19940701	346706.22	1392	249.07		
19950101	450412.97	1571	286.70		
19950701	393779.01	1571	250.66		
19960101	416290.26	1520	273.88	population standard	
19960720	424308.61	1520	279.15	deviation	44.91
19970118	290409.45	1494	194.38		
19970726	331719.57	1494	222.03		
19980117	406295.73	1504	270.14		
19980712	445974.21	1504	296.53	population mean	248.21
19990112	295450.53	1474	200.44		
19990710	385844.08	1474	261.77		
20000115	319189.24	1604	199.00		
20000722	319189.24	1604	199.00		
20010131	391739.24	1477	265.23		
20010707	290897.33	1477	196.95		
20020112	607493.99	1618	375.46		
20020713	404393.87	1618	249.93		
20030111	373859.83	1815	205.98		
20030712	500138.29	1815	275.56		
SUM	7679110.55	30938	4956.61		

Table 4. Weighted distance from the center of each group to the Crown.

CROWN	TOTAL DISTANCE	TOTAL PEERS	AVERAGE DISTANCE		
19940101	758.92	4	189.73		
19940701	691.17	4	172.79		
19950101	1703.94	7	243.42		
19950701	2420.64	9	268.96	sample standard	66.20
19960101	1528.72	4	382.18	deviation	
19960720	701.46	4	175.37		
19970118	1526.69	7	218.10	sample standard	5.48
19970726	2716.67	15	181.11	error	
19980117	2703.89	9	300.43		
19980712	3756.1	14	268.29	t	-4.43
19990112	1314.82	8	164.35		
19990710	1830.7	8	228.84	sample mean	223.91
20000115	1997.18	11	181.56		
20000722	745.95	4	186.49		
20010131	505.47	4	126.37	H_O: $\mu = \bar{x}$	
20010707	3376.54	17	198.62		
20020112	1714.36	5	342.87	H_A: $\mu > \bar{x}$	
20020713	997.88	5	199.58		
20030111	261.54	2	130.77		
20030712	1438.51	5	287.70		
SUM	32691.15	146	4447.53		

Table 5. Average distance from the Crown to the peers made by that Crown.

paid members to Crowns and an alternate hypothesis that the average distance of peers to

Crowns is less than the average distance of paid members to Crowns.

A one sample difference of means test was performed using the paid members to

each Crown as the population and the peers elevated as the sample, giving t=-4.38,

requiring the rejection of the null hypothesis. The difference between the average

distance from peers to Crown and paid members to Crown is significant at the 95% level.

Peers are closer to the Crown who elevated them than are paid members of the SCA

populace at large.

IS THERE A CORRELATION BETWEEN WHO WINS A CROWN TOURNAMENT

AND HOW FAR THEY TRAVELED TO THE TOURNEY?

Not only does distance play a role in who is elevated to a peerage, it is also

possible that it can play a role in who will win a Crown Tournament. Even though the

Crown Tournament rotates among the five regions in the kingdom, as it has for the past

six years, there are still more Crowns from the Southern and Central regions than any

other. This phenomenon could be due to the larger number of paid members in those

areas, or to a lesser travel distance required to reach all of the Crown tournaments. To

answer this question, the average travel distance of the past twenty Crowns can be

compared to the average travel distance of all paid members who could have gone to the

tournament.

The location of all the Crown Tournaments in the past ten years was determined

by using past Blackstars, along with the zip code of the closest United States Post Office

to create a point shapefile from the zip code polygons of all twenty tournaments. The

same Multiorigin to Multidestination script as before was used to run several networks between each group and each tournament, as well as between each Crown and each tournament (Figure 10). The resultant tables of each shapefile are again exported to Excel in order to run more in-depth spatial analysis of the distances between tournaments, members, and winners.

Again, the distance from each group to each tournament was weighted by the number of paid members as of December 31 of the year of the tournament. The total mileage is 8,103,963.35 for a total population of 30,595 paid members, giving a population mean of 265 miles traveled to a Crown Tournament (Table 6). When determining the distance that each Crown traveled to the tournaments, only the distance they traveled to the tournament they actually won was used. The distances they could have traveled to all the other tournaments they did not win were not aggregated. By summing the distances from each Crown to each tournament won, 4,723.53 miles, and dividing by the number of Crowns in the sample, twenty, a sample mean of 236 miles was calculated (Table 7). This gives an average of 29 fewer miles traveled by Crown Tournament winners than by all possible paid members in the kingdom.

With a null hypothesis that the average travel distance of winners of the past twenty Crowns have traveled to is equal to the average travel distance of all paid members to the Crown tournament, an alternate hypothesis could be that the average distance winners of the past twenty Crowns have traveled is less than the average distance of all paid members to the Crown tournament. Another one sample difference of means t-test was calculated to analyze these hypotheses. Calculating t=-1.1307, the null hypothesis failed to be rejected. The average distance the past twenty Crowns have
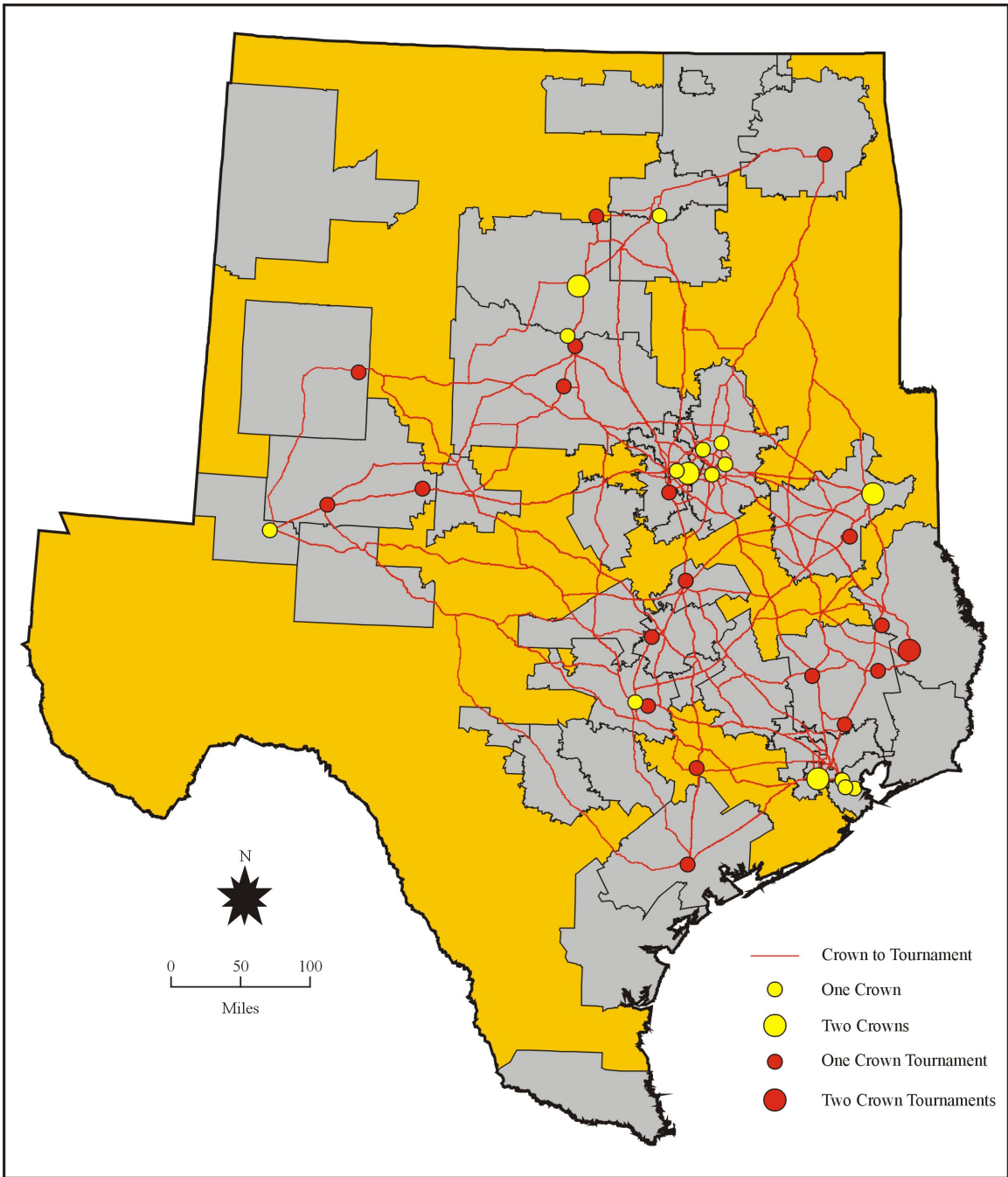
Figure 10. Networks between the past twenty Crowns and the tournament they won.

TOURNEY	WEIGHTED DISTANCE	TOTAL MEMBERS	AVERAGE DISTANCE		
19931113	371357.77	1472	252.28		
19940508	375126.30	1392	269.49		
19941022	279191.19	1392	200.57		
19950422	401769.82	1571	255.74		
19951014	455597.91	1571	290.01	population standard	
19960420	523775.99	1520	344.59	deviation	45.30
19961019	470051.81	1520	309.24		
19970412	370373.31	1494	247.91		
19971018	342098.14	1494	228.98	population mean	264.88
19980328	378927.08	1504	251.95		
19981024	407404.09	1504	270.88		
19990417	318825.96	1474	216.30		
19991016	424226.26	1474	287.81		
20000415	396403.11	1604	247.13		
20001014	405823.80	1604	253.01		
20010303	279892.60	1477	189.50		
20011006	297874.93	1477	201.68		
20020323	552902.11	1618	341.72		
20021102	419735.67	1618	259.42		
20030503	632605.50	1815	348.54		
SUM	8103963.35	30595	5266.74		

Table 6. Average distance from the center of each group to the Crown Tournament.

FROM	TO	DISTANCE	CROWNS			
19940101	19931113	140.91	1			
19940701	19940508	129.53	1			
19950101	19941022	184.70	1			
19950701	19950422	257.99	1	sample standard		
19960101	19951014	134.69	1		deviation	114.00
19960720	19960420	218.67	1			
19970118	19961019	236.26	1	sample standard		
19970726	19970412	84.60	1		error	25.49
19980117	19971018	90.19	1			
19980712	19980328	373.45	1		t	-1.13
19990112	19981024	205.75	1			
19990710	19990417	305.93	1	sample mean		236.18
20000115	19991016	190.94	1			
20000722	20000415	241.50	1			
20010131	20001014	389.01	1			
20010707	20010303	102.11	1	$H_O: \mu = \bar{x}$		
20020112	20011006	314.48	1			
20020713	20020323	405.16	1	$H_A: \mu > \bar{x}$		
20030111	20021102	225.33	1			
20030712	20030503	492.33	1			
	TOTAL	4723.53	20			

Table 7. Average distance from the Crown to the Crown Tournament they won.

traveled to Crown tournament is not significantly less than the average distance of all paid members. Winners of Crown Tournament do not seem to travel a shorter distance than everyone else.

WHAT IS THE AVERAGE TRAVEL DISTANCE OF PEOPLE WITHIN AND WITHOUT OF THEIR REGION? DOES IT DIFFER ACCORDING TO WHICH AWARDS A PERSON HAS?

An overwhelming belief in the SCA is that successful participants must travel across the kingdom on a regular basis so they may be recognized by members of the peerage orders and Crowns. If the other members of the order do not see a prospective peer at many events, they will not think that the person should join their order. In response to this belief, this research question determines how far people are willing to travel in the kingdom, and if the distance traveled is dependent on their rank in the SCA.

The online survey asked both members and non-members about their travels in the kingdom during 2002 and 2003. In the end, 383 people responded to the questionnaire. All of the calendar events during those years were listed out and respondents asked to select the events to which they went. In addition to information about which events they attended, other information asked for included their home zip code and what awards they have in the SCA. With this information, two new shapefiles could be created, one of respondents and their awards, and one of all the events in 2002 and 2003. Another bit of information is how far people traveled within their region and how far they traveled outside of their region.

Old Blackstars were used to determine the location of each event and then Google, Mapquest, and USPS.com were queried to find the zip code for that site or the closest post office. A limited number of events were only advertised in the Blackstar one of the two years (2002 or 2003), so the zip code from the other year for the event was used, assuming that the group would use the same site. Using these zip codes, a point shapefile could be created of all the events using the centroid of the zip code polygon as the location. The respondent shapefile was created the same way, only using the zip code provided by the respondent as their home zip code. There were a few zip codes that were post office boxes, and for those another zip code in the same city was assigned. Seven of the respondents were discarded, because their zip code was not in the kingdom or the zip code did not exist, leaving 376 respondents.

To calculate the distance traveled by each respondent, ArcView, Network Analyst, and the Multiorigin to Multidestination script by Matt Jaffe were once again put to use. This script calculates the least cost path from multiple origins to multiple destinations and allows the user to select the specific origins and destinations needed. For each respondent, a comma separated value (csv) file was created using their ID and zip code as the name, and listing all of the events they attended, along with its zip code. Using this database, each individual respondent in the respondent shapefile could be selected as the origin and then all of the events they traveled to in the events shapefile were selected as the multiple destinations. Once again, the NTAD highways shapefile was put to use as the network, having miles as the cost. Each network was saved as a separate shapefile using the same file name structure as the csv file from the questionnaire (Figure 11, 12, 13).

48
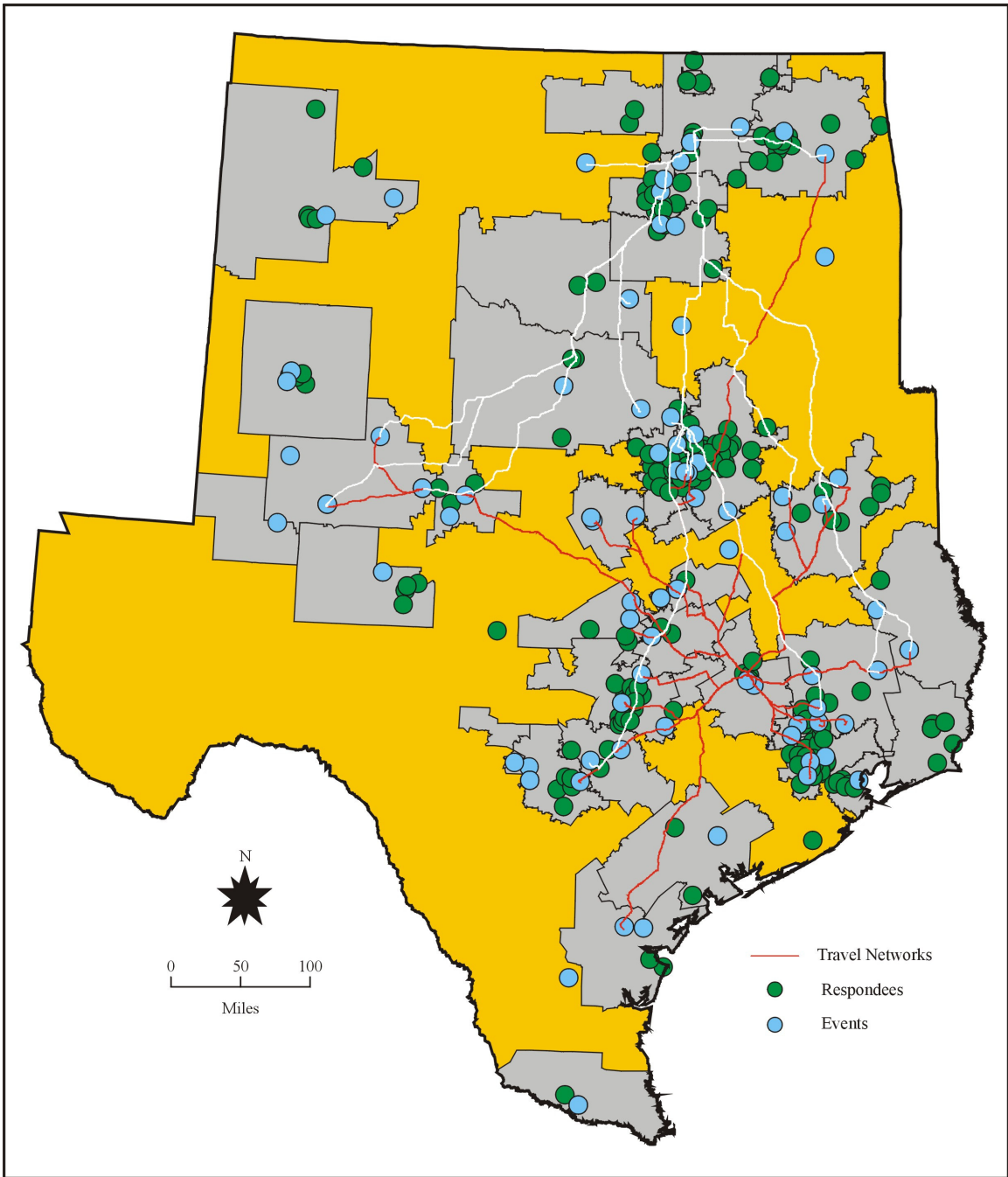
Figure 11. Map of two respondent's travel networks on a kingdom basis.
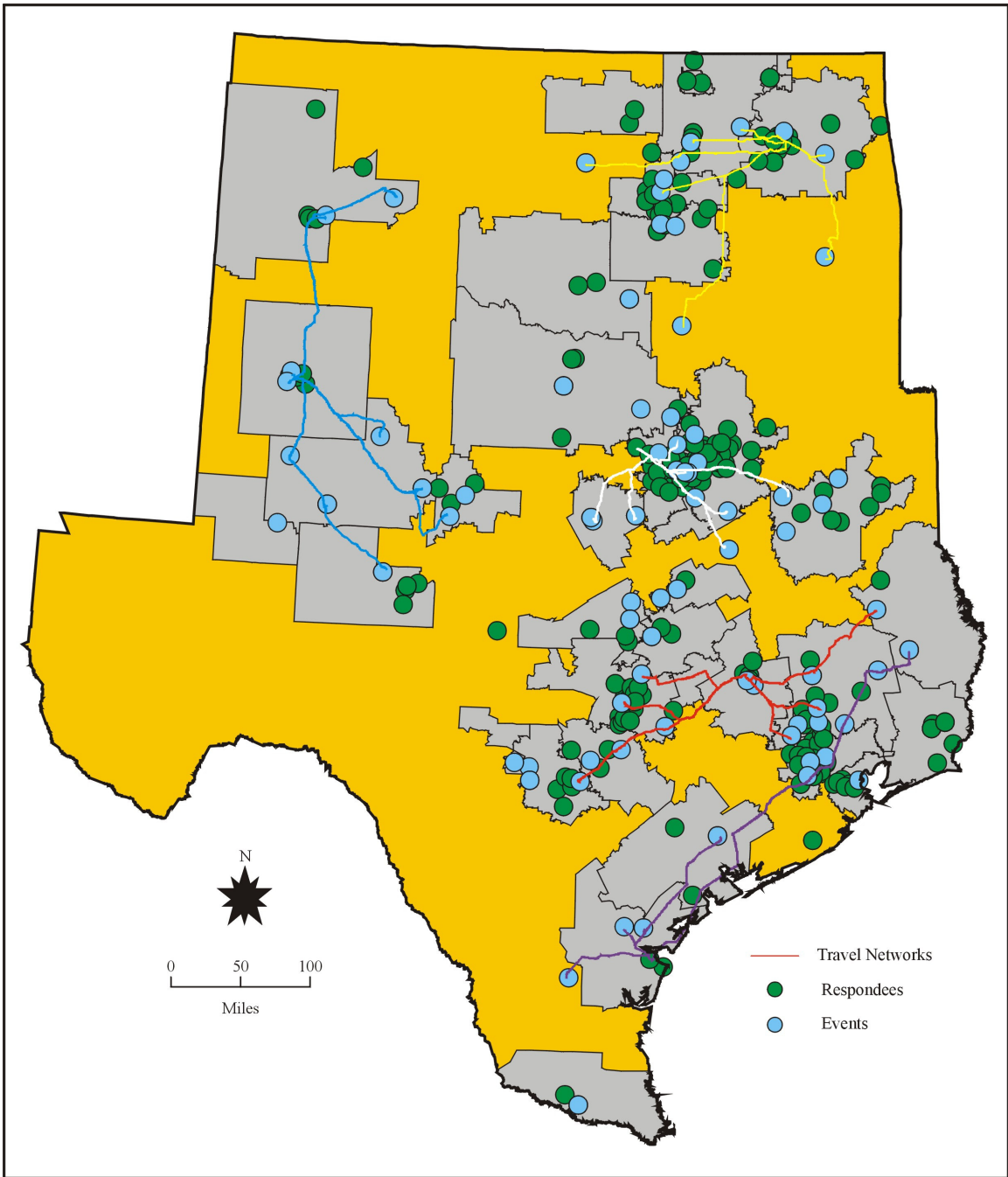
Figure 12. Map showing respondent's travel networks on a regional basis.
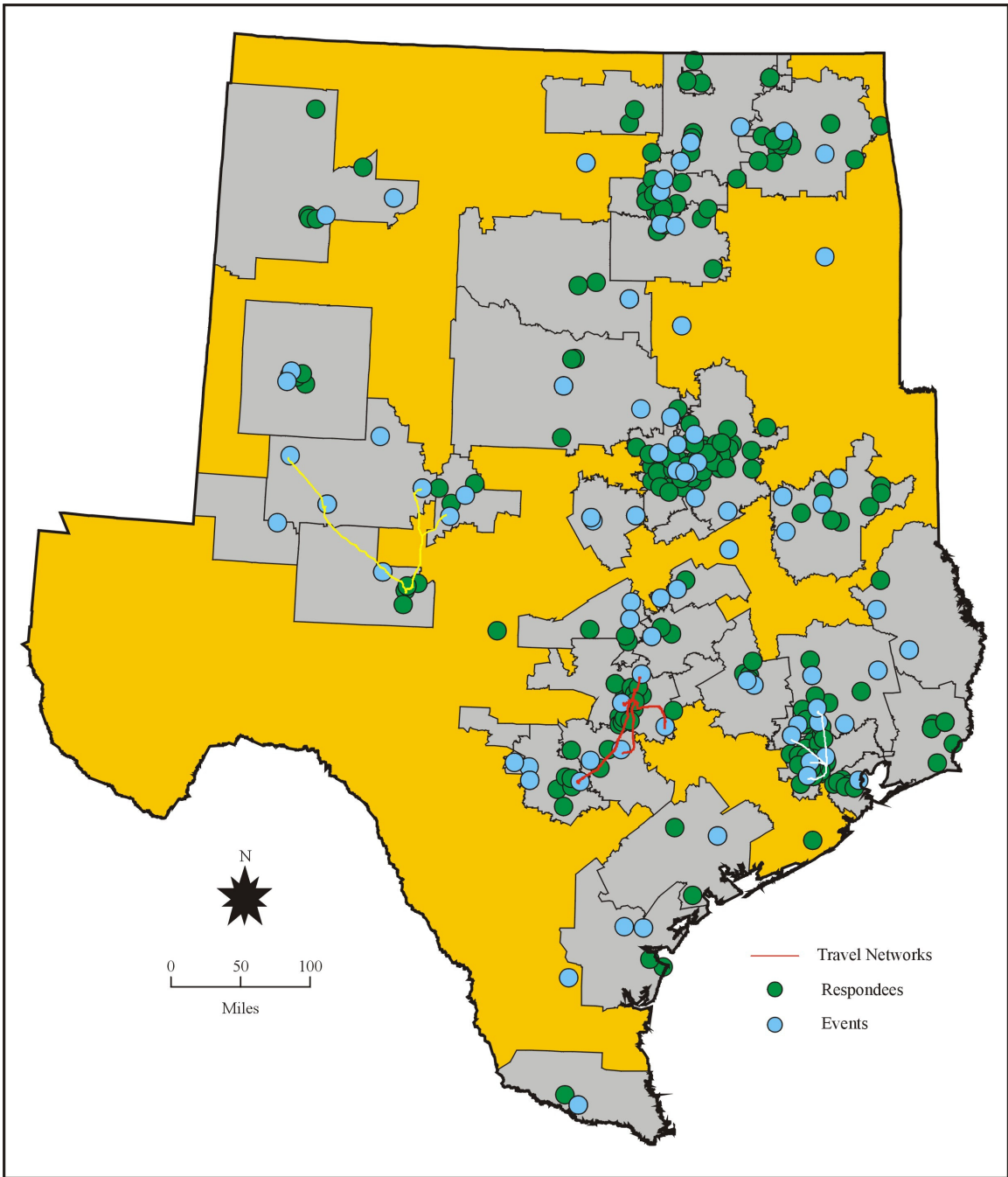
Figure 13. Map showing respondent's travel networks on a local basis.

As each respondent file was gone through, there were some individuals that did not go to any events in the two year time period and one that selected every event. These respondents were discarded, leaving 363 travel pattern networks of SCA members in Ansteorra. Another issue encountered was respondents who did not travel out of their zip code, leaving them with a total travel distance of 0 miles, even though they did go to events.

After all of the networks were calculated, there were 363 shapefiles of travel in the kingdom. The dbfs from the shapefiles were exported into a batch processing script to calculate what region the respondent was from, what region the event was in, the total travel distance of the respondent, the in-region travel distance, and the out-of-region travel distance. All of this information was imported into the respondents' shapefile, except the event region (since there was more than one event for each respondent), to facilitate better analysis using a GIS, as well as to create a travel spreadsheet in Excel. To differentiate between the people who did not travel outside of their zip code from the people who did not travel at all, their total travel distance was changed to five miles, assuming they would have traveled that much even in their own zip code. The total travel distance, in miles, of all the respondents is 749,912; 299,071 being in-region and 450,850 out-of-region, giving an average total travel distance of 1,999.77 miles – 797.52 in-region and 1,202.27 out-of-region.

Excel was also used to separate out travel distances by award level: no awards, AoA, grant, peerage, or royalty. The highest award a respondent had achieved determined at which level they would be placed, with Court Baronies going to the grant-level. For example, someone who had a grant-level award, but had also been Crown,

would be considered at the royalty level (Table 8). Fifty three of the respondents had no awards and an average total travel distance of 734 miles (380 in region and 353 out of region). This was by far the lowest travel distance of all the awards, and it confirmed the expectations of most SCA members. There were 194 AoA-level respondents having an average total travel distance of 1,645 miles (769 in region and 876 out of region), sixty-nine grant-level respondents with an average total travel distance of 2,671 miles (1,045 in region and 1,625 out of region), forty-six peerage-level respondents with an average total travel distance of 3,747 miles 1,061 in region and 2,686 out of region), and thirteen royal respondents with an average travel distance of 2,695 miles (665 in region and 2,029 out of region) (Figure 14).

To determine whether these averages differed according to which awards a person had, a two-tailed z-test was computed for each award grouping against the population, except for the royals-level group, which needed a t-test because of the small sample size. To see how the awards compared to each other in travel distance, an ANOVA (Analysis of Variance) test was then calculated. The null and alternative hypotheses for these tests are all the same:

$$H_O: \mu = \bar{x}$$

$$H_A: \mu \neq \bar{x}$$

The null hypotheses for No Awards and peers were rejected in all three categories: total travel, in-region travel, and out-of-region travel. The travel distances for these two awards groups is significantly different than the travel distances for all of the respondents. It is also observed that the travel distance of people without any awards is

Population 375	Total Travel	In Region Travel	Out Region Travel
Total	749912.00	299071.00	450850.00
Average	1999.77	797.52	1202.27
Std Deviation	2038.79	696.91	1624.82

H_O: $\mu = \bar{x}$ H_A: $\mu \neq \bar{x}$

Grants 69	Total Travel	In Region Travel	Out Region Travel
Total	184314.00	72131.00	112187.00
Average	2671.22	1045.38	1625.90
Std Deviation	2390.30	777.05	1864.04
Std Error	287.76	93.55	224.40
z	2.33	2.65	1.89

No Awards 53	Total Travel	In Region Travel	Out Region Travel
Total	38925.00	20180.00	18744.00
Average	734.43	380.75	353.66
Std Deviation	921.41	411.01	611.50
Std Error	126.57	56.46	84.00
z	-10.00	-7.38	-10.10

Peers 46	Total Travel	In Region Travel	Out Region Travel
Total	172386.00	48817.00	123566.00
Average	3747.52	1061.24	2686.22
Std Deviation	2583.99	477.29	2404.49
Std Error	380.99	70.37	354.52
z	4.59	3.75	4.19

AoAs 194	Total Travel	In Region Travel	Out Region Travel
Total	319249.00	149291.00	169969.00
Average	1645.61	769.54	876.13
Std Deviation	1554.73	718.05	1117.05
Std Error	111.62	51.55	80.20
z	-3.17	-0.54	-4.07

Royals 13	Total Travel	In Region Travel	Out Region Travel
Total	35038.00	8652.00	26384.00
Average	2695.23	665.54	2029.54
Std Deviation	2081.79	553.74	1776.92
Std Error	577.38	153.58	492.83
t	1.16	-0.83	1.61

Table 8. Statistics of travel distances by award level.
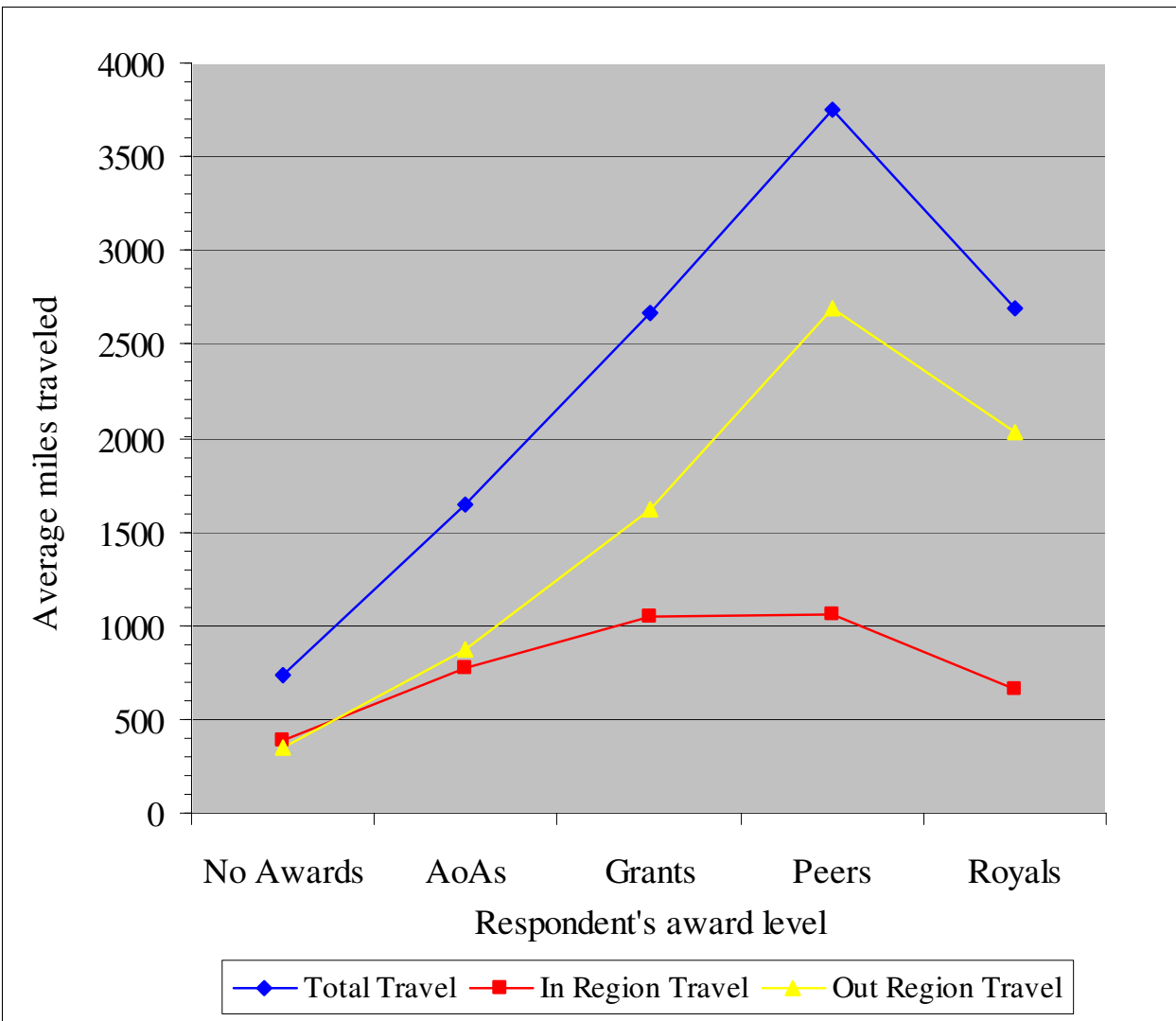
Figure 14. Graph of average miles traveled by award level.

less than the population, whereas the travel distance of peers is greater than the population.

For the AoA level group, the null hypothesis was rejected for total travel distance and out-of-region travel distance, but the null hypothesis for the in-region travel failed to be rejected. The distance traveled by AoAs is significantly different in terms of total travel and out-of-region travel, but not for in-region travel. It can be surmised that AoAs travel less than everyone else in total miles and out of their region, but that they do not travel significantly less than everyone in their region.

The grant-level group has a different travel pattern. For them, it was correct to reject the null hypotheses for both total travel and in-region travel, and fail to reject the null hypothesis for out-of-region travel, but it was very close. Grant-level SCA players travel significantly differently in their region and in total miles, but not significantly differently out of their region. Unlike the AoA-level group and people with no awards, the observation can be made that the individuals with grant-level awards travel farther than all the respondents in both total distance and in their region, but not a lot farther than all the respondents out of their region.

The null hypotheses for all travel distances that the royal-level group traveled failed to be rejected. They did not travel significantly different distances than the rest of the kingdom. To determine if there was a difference somewhere in the various award groups, an ANOVA test was run on each of the three travel distances – total, in-region, and out-of-region. With a critical F-value of 2.396 for all three, it can be deduced that there is a statistical difference among the samples and how far each award group traveled (Table 9).

Total Travel

Anova: Single Factor SUMMARY

Groups	Count	Sum	Average	Variance		
None	53	38925	734.43	865319.90		H_O:
AoAs	194	319249	1645.61	2429703.07		$x_N = x_A = x_G = x_P = x_R$
Grants	69	184314	2671.22	5797543.91		H_A:
Peers	46	172386	3747.52	6825382.30		
Royals	13	35038	2695.23	4694990.86		$x_N \neq x_A \neq x_G \neq x_P \neq x_R$

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	287098794.8	4	71774698.70	20.8836986	1.54649E-15	2.40
Within Groups	1271644407	370	3436876.77			
Total	1558743201	374				

In Region Travel

Anova: Single Factor SUMMARY

Groups	Count	Sum	Average	Variance		
None	53	20180	380.75	172177.30		H_O:
AoAs	194	149291	769.54	518270.50		$x_N = x_A = x_G = x_P = x_R$
Grants	69	72131	1045.38	612680.09		H_A:
Peers	46	48817	1061.24	232866.23		
Royals	13	8652	665.54	332182.10		$x_N \neq x_A \neq x_G \neq x_P \neq x_R$

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	17022133.77	4	4255533.44	9.54	2.39133E-07	2.40
Within Groups	165106837.8	370	446234.70			
Total	182128971.6	374				

Out Region Travel

Anova: Single Factor SUMMARY

Groups	Count	Sum	Average	Variance		
None	53	18744	353.66	381119.65		H_O:
AoAs	194	169969	876.13	1254261.66		$x_N = x_A = x_G = x_P = x_R$
Grants	69	112187	1625.90	3525734.80		H_A:
Peers	46	123566	2686.22	5910041.20		
Royals	13	26384	2029.54	3420559.60		$x_N \neq x_A \neq x_G \neq x_P \neq x_R$

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	181378992.3	4	45344748.08	20.75	1.92041E-15	2.40
Within Groups	808639257	370	2185511.51			
Total	990018249.3	374				

Table 9. ANOVA summaries of travel distances by award level.

To summarize the geographical research questions, distance does play a role when a Crown elevates peers. The difference between the average distance from peers to Crown and the general populace to the Crown is 24 miles, which is a significantly shorter distance. In the past ten years, the peers whom Crowns have elevated during their reign have been closer to each other than all the other paid members of the kingdom. Unlike the distance between Crowns and the peers they elevate, the distance between the past twenty Crowns and the Crown Tournament they won is not significantly shorter, even though the winners traveled 29 fewer miles than the population. The winners of the past twenty Crown Tournaments do not seem to travel a shorter distance than everyone else.

Lastly, the average travel distances within and without of regions and by awards was rather interesting. The travel distances for peers and those with no awards are significantly different than the travel distances of all the other respondents, the observation being that those without any awards traveled less and peers traveled more than the population. The distance traveled by AoAs is different in total travel and out-of-region travel, but not in-region. AoA recipients tend to travel less out of their region and in total miles, but not significantly less than everyone in their region.

The grant-level award group traveled differently in their regions and in total miles, but not out of their regions. Individuals with grant-level awards tend to travel further in both total distance and in their regions, but not a lot further than the other award levels out of their region. The respondents that were in the royal-level group did not travel significantly differently than the rest of the respondents.

CHAPTER 5: NON-GEOGRAPHICAL RESEARCH QUESTIONS

WHAT SOCIOECONOMIC VARIABLES CAN BE USED TO DETERMINE IF
SOMEONE WILL JOIN THE SCA OR NOT?

If you ask any member of the SCA what the typical personality of an SCA
member is, the answer is often the same. The typical SCA person has some combination
of the following traits: was a "loner" in high school, reads Science Fiction/Fantasy books
(among many others), currently plays or has played a role-playing game, is computer
savvy, is in the military or ex-military, and is idealistic. Not only do these personality
traits foretell who will likely join the SCA, there could also be socioeconomic traits that
would as well. Focusing membership drives to those who will most likely join an
organization is one of the most important tasks for a non-profit, volunteer organization.
It makes no sense to have membership drives in areas where the constituents are ill suited
to the organization. Quite a bit of effort is expended by most members of the SCA in
encouraging other people to join, whereas if they only knew where to focus this
encouragement, perhaps the membership numbers in the SCA would rise. Although
many of these characteristics cannot be measured, there are similar variables that can be
used that are measured by the US Census Bureau.

Census data was queried to determine if there are any specific variables that can
foretell what type of person will join the SCA. The census data for all the zip codes in
Oklahoma and Texas was used in a regression model to see whether any of the variables
can be used to ascertain who will join the SCA. To use these statistics, they had to be
aggregated so they would match up correctly with the dependent variable - the number of

members for each group in Ansteorra. Unfortunately, the number of members for each zip code was not available, only for the entire group. To resolve this issue, the list of zip codes claimed by each group is used to aggregate the individual variables by zip code so that there will be one value per variable for each group.

Once the aggregation was complete, the data needed to be manipulated so it would fit into the regression. The number of urban dwellers was divided by the total population to calculate the percent urban and the same was done for below-poverty income to derive the percent impoverished for each group. For the other variables, the one in question was divided by the total adult population (total population minus the number of children 0-17 years). The percent employed includes those in the armed forces, but excludes those under sixteen years of age or not in the labor force, while the percent with a high school diploma includes all those with some higher education divided by the total population over sixteen years of age. The number of members in each group was changed to the number of members for every 10,000 total population by dividing the number of members by the total population and multiplying by 10,000 (Table 10).

The final variables for each of the forty-three groups in Ansteorra to use in the regression project are as follows:

- Percent Urban
- Percent High School Diploma
- Percent College Degree
- Percent Homosexual
- Percent Employed

- Per Capita Income
- Percent Below Poverty
- Percent Members per 10,000 Total Population

Branch	% Urban	% HS Diploma	% College	% Homo	% Employed	Total Income	% Below Poverty	Income Per Capita	Members /10K*
Adlerrsruhe	83.68	63.66	15.38	0.14	94.56	584,620	13.32	17,608	0.98
Bjornsborg	89.96	63.92	18.80	0.21	94.51	1,721,535	14.96	18,676	0.50
Blacklake	88.58	60.25	14.85	0.16	93.37	247,087	15.67	17,560	0.84
Bonwicke	79.15	58.27	16.20	0.20	94.25	701,271	18.14	16,506	1.10
Bordermarch	75.88	65.21	11.93	0.16	92.31	549,920	14.94	17,500	1.05
Brad Leah	66.39	63.59	13.82	0.15	95.23	1,024,441	12.46	17,080	0.85
Bryn Gwlad	87.35	68.52	30.53	0.37	96.25	1,814,997	10.41	25,352	1.10
Chemin Noir	89.94	74.43	25.65	0.15	94.52	40,284	0.12	21,394	0.00
Crossroads Keep	71.05	59.10	9.63	0.16	93.70	325,901	16.51	14,915	0.61
Crown Lands	56.47	58.03	11.91	0.17	93.11	11,612,459	19.12	14,786	0.00
Dragonsfire Tor	50.88	66.43	17.63	0.19	92.96	255,183	11.25	19,423	1.60
Eldern Hills	61.73	65.20	13.92	0.11	94.06	911,970	15.92	15,359	1.64
Elfsea	93.94	67.46	21.87	0.22	95.54	1,423,982	10.19	22,626	0.83
Emerald Keep	75.42	59.41	14.54	0.18	93.79	396,595	17.40	16,971	1.17
Ffynnon Gath	57.40	61.43	17.16	0.17	94.33	503,001	12.48	17,904	0.57
Gate's Edge	98.27	67.61	23.96	0.21	95.34	288,488	9.16	22,865	0.46
Glaslyn	94.54	70.14	30.30	0.17	95.49	244,497	7.44	25,964	0.64
Greywood	38.54	58.34	11.90	0.18	92.33	586,716	18.00	15,418	0.70
La Marche Sauvage	90.04	40.69	10.10	0.19	87.89	407,901	34.94	10,199	0.14
Lindenwood	99.88	65.01	24.38	0.26	95.55	271,178	9.88	23,494	0.28
Loch Ruaidh	82.01	67.66	19.31	0.23	95.48	495,860	9.88	21,399	0.87
Loch Soillier	94.74	65.39	18.58	0.21	94.04	857,308	11.52	21,026	0.91
Mendersham	77.41	62.39	15.94	0.15	92.66	275,550	13.25	16,678	1.25
Middleford	82.53	63.70	11.84	0.13	94.99	290,946	10.26	15,408	1.50
Mooneschadowe	57.16	63.34	16.66	0.19	94.32	646,158	16.24	15,895	2.30
Namron	59.85	66.01	17.60	0.15	95.18	662,892	12.32	17,881	1.69
Northkeep	75.28	69.14	18.54	0.19	95.00	1,525,711	12.20	19,255	0.92
Ravensfort	52.75	64.60	16.94	0.20	94.73	821,563	11.34	21,024	1.12
River's Run	78.58	70.70	17.77	0.20	92.37	37,580	15.39	17,903	0.00
Rosenfeld	54.89	63.19	14.26	0.19	93.38	884,112	14.37	17,292	0.60
Seawinds	84.56	59.18	13.89	0.18	92.54	651,685	18.96	16,155	0.72
Shadowlands	68.24	51.01	17.93	0.15	92.64	355,478	21.23	16,056	0.90
Stargate	95.91	59.57	21.33	0.30	93.40	2,414,701	15.56	20,811	0.56
Steppes	92.14	65.61	24.75	0.30	95.06	3,255,759	11.27	24,411	0.49
Stone Bridge Keep	61.66	60.42	11.45	0.14	94.52	394,750	15.08	16,081	0.69
Tempio	59.08	64.25	15.76	0.14	94.74	407,360	13.10	18,234	1.80
Torre de los Brazos	64.00	62.92	12.55	0.14	93.14	395,552	12.76	17,469	0.00
Treloc	82.41	60.03	15.26	0.16	93.21	207,904	14.44	17,232	1.27
Twr Cath	100.00	50.30	19.08	0.41	76.82	9,614	31.46	14,429	0.00
Wastelands	63.80	69.39	15.62	0.15	95.45	466,934	13.10	17,161	1.68
Westgate	99.99	71.19	34.76	0.25	94.68	360,200	11.48	27,537	0.68
Wiesenfeuer	87.84	68.76	20.13	0.24	95.18	1,195,852	13.75	19,498	0.66

* This is the dependent variable used to calculate the regression.

Table 10. Socioeconomic attributes for each group in Ansteorra.

When the required data is in the proper format, it can be imported into the statistics program SPSS to run the analysis and eventually the regression itself. To begin, the data was "explored" to see if any of the variables are not distributed normally or if there are any other statistical issues with them. The variables with the highest amount of skewness and kurtosis are percent employed and total income, mostly due to one outlier of Twr Cath. Twr Cath is one zip code in downtown Houston where the few people actually living there have a low income and are unemployed.

The variables with the highest Pearson's correlation (Table 11) are income per capita and percent college degree, with a positive correlation of .892. This would make sense, as people with higher and more education are more qualified for the higher income careers. Percent high school diploma is also highly correlated in a positive direction with percent college, percent employed and income per capita. The highest Spearman's correlations (Table 12) are again income per capita and percent college degree; only this time the correlation was .811. The other outliers in the Spearman's matrix are percent below poverty and income per capita, with a correlation of -.800, the reason being obvious.

To begin the regression, all of the variables are put into the regression at once, called the Enter method. The R^2 turned out to be .324, and the adjusted R^2 is .165. Basically, with the chosen variables, only 32% of the reasoning behind why people join the SCA could be explained. With such a low adjusted R^2, the differences between the sample and population values are large. The F-test is 2.036, which is significant to .072, meaning that the variables are not statistically significant in explaining who will join the SCA at the level desired (0.05).

		% Urban	% HS Diploma	% College	% Homo	% Employed	Total Income	% Below Poverty	Income Per Capita	% Members /10K
% Urban	Pearson Correlation	1								
	Sig. (2-tailed)	.								
	N	43								
% HS Diploma	Pearson Correlation	0.095	1							
	Sig. (2-tailed)	0.546	.							
	N	43	43							
% College	Pearson Correlation	0.575	0.541	1						
	Sig. (2-tailed)	0.000	0.000	.						
	N	43	43	43						
% Homo	Pearson Correlation	0.526	-0.014	0.577	1					
	Sig. (2-tailed)	0.000	0.930	0.000	.					
	N	43	43	43	43					
% Employed	Pearson Correlation	-0.135	0.610	0.192	-0.393	1				
	Sig. (2-tailed)	0.389	0.000	0.216	0.009	.				
	N	43	43	43	43	43				
Total Income	Pearson Correlation	-0.118	-0.072	-0.045	0.097	0.065	1			
	Sig. (2-tailed)	0.451	0.648	0.773	0.536	0.680	.			
	N	43	43	43	43	43	43			
% Below Poverty	Pearson Correlation	-0.055	-0.887	-0.474	0.153	-0.739	0.081	1		
	Sig. (2-tailed)	0.728	0.000	0.001	0.328	0.000	0.606	.		
	N	43	43	43	43	43	43	43		
Income Per Capita	Pearson Correlation	0.460	0.704	0.892	0.429	0.456	-0.033	-0.698	1	
	Sig. (2-tailed)	0.002	0.000	0.000	0.004	0.002	0.833	0.000	.	
	N	43	43	43	43	43	43	43	43	
% Members /10K	Pearson Correlation	-0.358	0.059	-0.248	-0.360	0.296	-0.229	-0.076	-0.122	1
	Sig. (2-tailed)	0.018	0.705	0.108	0.018	0.054	0.140	0.628	0.435	.
	N	43	43	43	43	43	43	43	43	43

Table 11. Pearson correlation matrix from SPSS.

		% Urban	% HS Diploma	% College	% Homo	% Employed	Total Income	% Below Poverty	Income Per Capita	% Members /10K
% Urban	Correlation Coefficient	1								
	Sig. (2-tailed)	.								
	N	43								
% HS Diploma	Correlation Coefficient	0.210	1							
	Sig. (2-tailed)	0.176	.							
	N	43	43							
% College	Correlation Coefficient	0.570	0.623	1						
	Sig. (2-tailed)	0.000	0.000	.						
	N	43	43	43						
% Homo	Correlation Coefficient	0.534	0.223	0.675	1					
	Sig. (2-tailed)	0.000	0.150	0.000	.					
	N	43	43	43	43					
% Employed	Correlation Coefficient	0.191	0.592	0.451	0.135	1				
	Sig. (2-tailed)	0.219	0.000	0.002	0.390	.				
	N	43	43	43	43	43				
Total Income	Correlation Coefficient	-0.124	0.054	0.079	0.288	0.207	1			
	Sig. (2-tailed)	0.429	0.732	0.617	0.062	0.183	.			
	N	43	43	43	43	43	43			
% Below Poverty	Correlation Coefficient	-0.236	-0.789	-0.581	-0.182	-0.701	0.021	1		
	Sig. (2-tailed)	0.127	0.000	0.000	0.242	0.000	0.896	.		
	N	43	43	43	43	43	43	43		
Income Per Capita	Correlation Coefficient	0.428	0.755	0.811	0.513	0.598	0.121	-0.800	1	
	Sig. (2-tailed)	0.004	0.000	0.000	0.000	0.000	0.441	0.000	.	
	N	43	43	43	43	43	43	43	43	
% Members /10K	Correlation Coefficient	-0.422	0.047	-0.232	-0.404	0.194	0.021	-0.010	-0.139	1
	Sig. (2-tailed)	0.005	0.767	0.134	0.007	0.213	0.894	0.949	0.372	.
	N	43	43	43	43	43	43	43	43	43

Table 12. Spearman's correlation matrix from SPSS.

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Of all the variables, only one is statistically significant when looking at the coefficients. Per capita income is barely significant at the .042 level, whereas all the other variables ranged from .093 to .913. Few of the variables influenced the changes in the number of members for each group in the kingdom.

A stepwise regression model was also run, allowing SPSS to choose which variables are the most significant for determining the best formula for the regression. The only variable it chose is percent homosexual, which had a negative relationship as shown by the coefficient of -4.101 for the variable. After the first model, the R^2 was .129, adjusted to .108 with a significance of .018. From this regression model, it can be surmised that there are not many socioeconomic variables common throughout the SCA.

HOW DOES THE LOCATION QUOTIENT OF PEERS AND ROYALS IN GROUPS WITH A LARGE NUMBER OF MEMBERS COMPARE TO GROUPS WITH FEWER MEMBERS?

The database of all the peers in the kingdom and their home group was used to run a Location Quotient (LQ) analysis to determine if a group is similar in the number of peers to the entire kingdom or if the group is an abnormality. Do the baronies have the same percentage of peers to non-peers as the smaller groups, usually the shires and cantons? The Location Quotient is an index value that measures the regional concentration of an activity. An LQ equal to one means that the smaller region is very typical of the larger one, or that the group mirrors the kingdom. An LQ greater than one means there is a concentration of the activity being measured in the region, or that there are more peers and royals in that group than there are throughout the rest of the kingdom.

An LQ less than one means there is a deficit of activity in the region, or that there are fewer peers and royals in that group than throughout the rest of the kingdom.

This question was used to determine if the number of peers and royals were comparable in groups with a large population to groups with a smaller population of paid members. To be successful in Ansteorra, does a person have to be near other successful people, or is being a member of the kingdom enough? If a person needed to be near other successful people, which groups would offer the greatest chance of success or award progression? All of these things are important to know if you want to be a successful member of the SCA.

To answer this question about success in the Kingdom of Ansteorra, the data was gathered and then all the peers and royalty in the kingdom were selected by using the Order of Precedence (OP). All 304 names of the peers and royalty that had been elevated while they lived in the kingdom were selected and the group where they resided when they were elevated was determined. To do this, as some of the data was nearly twenty-five years old, other awards the person had received were cross-referenced to see if any were from a specific group, such as a service award, around the time of their elevation. Some of the peers and royals could be asked where they lived or where the person or people they had elevated lived, and the rest were asked about on the Ansteorra e-mail list. Eventually, it was determined where all of the peers and royals had lived when they were elevated except one. That Laurel was added in as an attribute for Crown Lands (unclaimed zip codes in the kingdom) rather than a specific group.

The number of paid members for each group was received from the Kingdom Seneschal in a list dated December 31, 2003. Unfortunately, all canton members were

counted in their barony's membership numbers, so official membership numbers for cantons are unavailable. Using these numbers, an LQ was calculated three times for each group, for peerages, for royalty, and for both of them together (Table 13).

Some notable numbers and groups are the Shire of Blacklake, with 12 members and a $LQ_P = .9951$ and a $LQ_R = 3.0867$. Blacklake is typical of the rest of the kingdom with their number of peers being two, but the LQ shows a concentration of past Crown reigns, when they only had one. The Shire of Brad Leah is similar, but they have 39 members, with a $LQ_P = .15$ and a $LQ_R = .94$. They have a deficit of peers, but a typical number of royalty.

The Barony of Eldern Hills, with 59 members, has a high concentration of royalty ($LQ_R = 2.511$), but a deficit of peers ($LQ_P = .3036$). Elfsea has a large number of members, 111, and is another barony with a concentration of past Crowns ($LQ_R = 4.338$). However, they also have a concentration of peers ($LQ_P = 1.344$). Far down on the coast, the Barony of Loch Soillier has 84 members and a typical gathering of peers ($LQ_P = .924$) but only a slight concentration of royalty ($LQ_R = 1.322$).

The Shire of Mooneschadowe boasts 51 members in Stillwater, OK, but it has a deficit of peers ($LQ_P = .2341$) and no royalty. The Baronies of Stargate (139 members) and the Steppes (139 members) are both bastions of peers ($LQ_P = 2.1047$ and 1.5892, respectively) and royals ($LQ_R = 3.4642$ and 1.5989, respectively), with Stargate having the greater numbers. Lastly, the Shire of the Wastelands is very typical of the rest of the kingdom in its number of peers ($LQ_P = .9951$), but has no royalty. They only have 12 paid members, though.

Branch	City, State	Members	Chivalry	Laurels	Pelicans	Royals	LQ-P	LQ-R	LQ-T
Adlerrsruhe	Amarillo, TX	32					0.00	0.00	0.00
Bjornsborg	San Antonio, TX	101	3	12	9	1	1.42	0.37	1.27
Blacklake	Midland/Odessa, TX	12	1		1	1	1.00	3.09	1.29
Bonwicke	Lubbock, TX	36	2	1	2		0.83	0.00	0.71
Bordermarch	Beaumont, TX	48	2	2	3	1	0.87	0.77	0.86
Brad Leah	Wichita Falls, TX	39	1			1	0.15	0.95	0.26
Bryn Gwlad	Austin, TX	159	6	19	11	2	1.35	0.47	1.23
Chemin Noir	Bartlesville, OK						0.00	0.00	0.00
Crossrode Keep	Big Spring, TX	20			1		0.30	0.00	0.26
Crown Lands				1			0.00	0.00	0.00
Dragonsfire Tor	Stephenville, TX	20					0.00	0.00	0.00
Eldern Hills	Lawton, OK	59	1		2	4	0.30	2.51	0.61
Elfsea	Fort Worth, TX	111	8	11	6	13	1.34	4.34	1.76
Emerald Keep	Waco, TX	12	1				0.50	0.00	0.43
Ffynnon Gath	San Marcos, TX	19	1	1			0.63	0.00	0.54
Gate's Edge	northern Houston, TX	15					0.00	0.00	0.00
Glaslyn	Denton, TX	17	1				0.35	0.00	0.30
Greywood	Nacogdoches, TX	21		1	1		0.57	0.00	0.49
La Marche Sauvage	McAllen, TX	8					0.00	0.00	0.00
Lindenwood	Irving, TX	14					0.00	0.00	0.00
Loch Ruadh	Weatherford, TX	59					0.00	0.00	0.00
Loch Soilleir	Clear Lake, TX	84	3	6	4	3	0.92	1.32	0.98
Mendersham	Abilene, TX	13		1			0.46	0.00	0.40
Middleford	Killeen, TX	38	6	2	1		1.41	0.00	1.22
Mooneschadowe	Stillwater, OK	51		1	1		0.23	0.00	0.20
Namron	Norman, OK	94	5	15	6	1	1.65	0.39	1.48
Northkeep	Tulsa, OK	85	2	5	1	1	0.56	0.44	0.54
Raven's Fort	Huntsville, TX	70	1		3		0.34	0.00	0.29
River's Run	Ponca City, OK						0.00	0.00	0.00
Rosenfeld	Tyler, TX	40	2	1	2	1	0.75	0.93	0.77
Seawinds	Corpus Christi, TX	43	1				0.14	0.00	0.12
Shadowlands	Bryan/College Station, TX	24		4			1.00	0.00	0.86
Stargate	central Houston, TX	139	14	18	17	13	2.10	3.46	2.29
Steppes	Dallas, TX	139	10	15	12	6	1.59	1.60	1.59
Stonebridge Keep	Victoria, TX	21		1			0.28	0.00	0.24
Tempio	Temple, TX	20	1				0.30	0.00	0.26
Thuein	Kerrville, TX	4					0.00	0.00	0.00
Tir Medoin	Rockdale, TX						0.00	0.00	0.00
Trelac	San Angelo, TX	20		2	1		0.90	0.00	0.77
Twr Cath	central Houston, TX						0.00	0.00	0.00
Wastelands	Enid, OK	12		1	1		1.00	0.00	0.86
Westgate	western Houston, TX	33					0.00	0.00	0.00
Wiesenfeuer	Oklahoma City, OK	83	12	6	9	1	1.94	0.45	1.73
	TOTAL	1815	84	126	94	49			

Table 13. Location Quotients for all of the groups in the Kingdom of Ansteorra.

Statistically speaking, a person's odds of becoming Crown are better if they live in Blacklake, Eldern Hills, Elfsea, Stargate, or the Steppes, whereas their odds of becoming a peer are better if they live in Bjornsborg, Elfsea, Namron, Stargate, the Steppes, or Wiesenfeuer.

TO WHAT EXTENT DOES THE NUMBER OF CHIVALRY IN A GROUP INFLUENCE WHETHER A MEMBER OF THE GROUP WINS CROWN?

Just as distance could possibly have been a factor in who wins Crown Tourney, the number of chivalry in a group can also possibly increase the chance of someone from that group winning Crown Tournament. After all, the Order of the Chivalry is the peerage given to those who excel in fighting. With a large number of chivalry in a group, it is plausible that the fighting level of that group would be higher than the collective fighting level in a group that did not have any chivalry. Using the same database as the previous objectives, the number of chivalry in each group was extracted in order to envisage the number of Crown Tournament winners from groups with a lot of chivalry, and groups with only a few members of the chivalry.

The number of chivalry in each group at the time a person from that group won Crown was used rather than the number of chivalry currently in each group. This data went back for the past twenty Crowns, or ten years. Since the date each member of the chivalry was elevated is known, the exact number of chivalry in each group as of the date of each respective Crown Tournament could be used. For the groups that never had a Crown, the data was the number of chivalry that had been elevated in that group before December 31, 2003. In order to keep all groups on the same level, the number of

chivalry per capita was used by dividing the number of chivalry in each group by the total number of paid members in each group at the time (Table 14).

The number of chivalry per capita in groups that had a Crown has a proportion of 0.0623, and the number of chivalry per capita in groups that did not have a Crown has a proportion of 0.0274. Using these proportions, a Z of 3.9911 was calculated, which shows that the number of chivalry per capita in groups that had a Crown is significantly higher than those groups without a Crown. Being able to practice with higher caliber fighters, (members of the chivalry) before a Crown Tourney appears to greatly increase the odds of a fighter winning Crown Tournament.

WHAT IMPACT DOES THE AVERAGE ANNUAL INCOME OF A GROUP'S GEOGRAPHICAL AREA HAVE ON THE NUMBER OF PEERS AND ROYALS IN THAT GROUP?

Distance is not the only factor that can influence the distribution of peerages and members of the SCA. The average annual income for a group's geographical area could possibly have an influence. A participant with a larger income would have more money to spend on the SCA, which means that they can afford to travel more often and farther, as well as afford new and more elaborate clothing and other paraphernalia. If a group is in a lower income area, it is surmised that there would not be as many peers in that group compared to other groups where the average annual income is much higher. The average annual income from the census data can be used to ascertain if the average income in an area influences a person's chance of being successful by becoming a peer or winning Crown Tournament.

Number of Chivalry per capita per group that had a Crown		
Group	**Chivalry**	**Members**
Elfsea	4	73
Stargate	12	134
Eldern Hills	1	39
Rosenfeld	1	35
Stargate	12	165
Eldern Hills	1	42
Steppes	7	173
Bryn Gwlad	4	106
Stargate	12	129
Wiesenfeuer	11	67
Steppes	7	149
Brad Leah	1	24
Elfsea	7	114
Elfsea	7	90
Loch Soillier	2	62
Steppes	10	157
Blacklake	1	15
Rosenfeld	1	34
Steppes	10	139
Loch Soillier	3	84
TOTAL	114	1831

proportion with Crowns (1)	0.0623
proportion without Crowns (2)	0.0274
standard error of the difference of proportions	0.0087
test statistic (Z)	3.9911

$H_O: \rho_1 = \rho_2$

$H_A: \rho_1 \neq \rho_2$

Number of Chivalry per capita per group that did not have a Crown		
Group	**Chivalry**	**Members**
Adlerrsruhe	0	32
Bjornsborg	3	101
Bonwicke	2	36
Bordermarch	2	48
Chemin Noir	0	0
Crossrode Keep	0	20
Dragonsfire Tor	0	20
Emerald Keep	1	12
Ffynnon Gath	1	19
Gate's Edge	0	15
Glaslyn	1	17
Greywood	0	21
La Marche Sauvage	0	8
Lindenwood	0	14
Loch Ruadh	0	59
Mendersham	0	13
Middleford	6	38
Mooneschadowe	0	51
Namron	5	94
Northkeep	2	85
Raven's Fort	1	70
River's Run	0	0
Seawinds	1	43
Shadowlands	0	24
Stonebridge Keep	0	21
Tempio	1	20
Thuein	0	4
Tir Medoin	0	0
Trelac	0	20
Twr Cath	0	0
Wastelands	0	12
Westgate	0	33
TOTAL	26	950

Table 14. Number of chivalry per group that have won Crown.

To find out if this was true, a correlation was run between the per capita income for each group and the total number of peers and royals in the group. If the correlation comes out to be negative one, there is an inverse relationship between income and peerages, (i.e. that as income goes down, the number of peerages goes up). If the correlation comes out to be positive one, then as income goes up, the number of peerages will go up as well. The correlation can also be weak (0.0-0.3), moderate (0.3-0.7), or strong (0.7-1.0). In order to launder out the size of each group, the total numbers of peers and royals were divided by the number of paid members in each group (Table 15).

The results show that there is a very weak correlation between the average annual income and the number of peers and royals in each group, as the correlation per capita is .193. The not per capita correlation is not much better, coming in at a moderate .359. The conclusion from this is that the income of a group's geographical area does not influence whether or not a member of that group is successful by becoming a peer or by becoming Crown.

In summary, the first non-geographical research questions show that there are no socioeconomic variables that can be used to help determine what type of person is most likely to join the SCA. Only 32% of the reasoning behind why people join the SCA can be explained, which is also not statistically significant. It seems that there are not very many common socioeconomic indicators for the kingdom of Ansteorra; its members are too eclectic.

The second non-geographical research question is used to determine if the number of peers and royals are comparable in both large and small groups. There are some groups, Elfsea, Stargate, and Steppes, that have a concentration of peers and royals and

Branch	Chivalry	Laurels	Pelicans	Royals	Total	Members	Total Per Capita	Income Per Capita
Adlerrsruhe					0	32	0.00	17608.40
Bjornsborg	3	12	9	1	25	101	0.25	18675.97
Blacklake	1		1	1	3	12	0.25	17560.22
Bonwicke	2	1	2		5	36	0.14	16506.28
Bordermarch	2	2	3	1	8	48	0.17	17500.38
Brad Leah	1			1	2	39	0.05	17079.74
Bryn Gwlad	6	19	11	2	38	159	0.24	25352.33
Chemin Noir					0	0	0.00	21394.20
Crossrode Keep			1		1	20	0.05	14914.74
Crown Lands		1			1	0	0.00	14785.63
Dragonsfire Tor					0	20	0.00	19422.98
Eldern Hills	1		2	4	7	59	0.12	15359.38
Elfsea	8	11	6	13	38	111	0.34	22626.38
Emerald Keep	1				1	12	0.08	16970.93
Ffynnon Gath	1	1			2	19	0.11	17903.64
Gate's Edge					0	15	0.00	22864.61
Glaslyn	1				1	17	0.06	25964.03
Greywood		1	1		2	21	0.10	15417.73
La Marche Sauvage					0	8	0.00	10199.08
Lindenwood					0	14	0.00	23493.82
Loch Ruadh					0	59	0.00	21398.57
Loch Soilleir	3	6	4	3	16	84	0.19	21026.32
Mendersham		1			1	13	0.08	16677.63
Middleford	6	2	1		9	38	0.24	15407.86
Mooneschadowe		1	1		2	51	0.04	15895.30
Namron	5	15	6	1	27	94	0.29	17881.17
Northkeep	2	5	1	1	9	85	0.11	19255.29
Raven's Fort	1		3		4	70	0.06	21023.63
River's Run					0	0	0.00	17903.33
Rosenfeld	2	1	2	1	6	40	0.15	17291.58
Seawinds	1				1	43	0.02	16154.54
Shadowlands		4			4	24	0.17	16056.42
Stargate	14	18	17	13	62	139	0.45	20811.00
Steppes	10	15	12	6	43	139	0.31	24410.68
Stonebridge Keep		1			1	21	0.05	16081.10
Tempio	1				1	20	0.05	18233.84
Thuein					0	4	0.00	19907.16
Tir Medoin					0	0	0.00	11381.73
Trelac		2	1		3	20	0.15	17231.80
Twr Cath					0	0	0.00	14429.00
Wastelands		1	1		2	12	0.17	17160.94
Westgate					0	33	0.00	27536.73
Wiesenfeuer	12	6	9	1	28	83	0.34	19497.94
Correlation	0.36			**Correlation per capita**			0.19	

Table 15. Income correlation by group in the Kingdom of Ansteorra.

there are other groups, Crossrode Keep, Seawinds, Stonebridge Keep, and Tempio, that have a deficit of peers and royals based on their membership. By looking at the groups with a typical amount of peers (LQ = 1.0), such as Blacklake, Shadowlands, and Wastelands, it can be construed that for every six paid members there is approximately one peer. Brad Leah and Rosenfeld are the groups with the most typical number of royals (0.95 and 0.93, respectively) and they each have approximately forty paid members. These LQs show that for every 37 paid members, there is one royal.

The number of chivalry in a group does influence whether a member of that group will win Crown. The number of chivalry per capita in groups that had a Crown is statistically more significant than those groups without a Crown. The ability to practice with fighters of a higher caliber will increase a fighter's chance of winning Crown Tournament.

Lastly, the average annual income of a group's geographical area does not have a very large impact on the number of successful people from that group. There is a very weak correlation between the average annual income and the number of peers and royals in each group. Even though the common perception is that being successful requires a lot of money, the data does not corroborate with it. Granted, this data is for the entire geographical area, not just the SCA members. If socioeconomic data could be gathered on SCA members only, the answer to this question could possibly change.

CHAPTER 6: CONCLUSIONS

SUMMARY

The results of this thesis are mixed. For some of the questions, there is a spatial relationship to success (becoming a peer or winning Crown Tournament), and in others there is not. There does appear to be a geographical relationship to membership and winning Crown Tournament, but not necessarily to being successful or receiving awards.

Distance does seem to play a role when a Crown elevates peers. Statistically speaking, the twenty four miles on average that a Crown is closer to the peers they elevated is significant. Upon careful consideration, this conclusion is logical. If the Crown knows the potential peer, they may have already decided whether or not to elevate them, regardless of the recommendations of the particular peerage circle. If the Crown does not know the candidate, then the circle must come to a positive decision and persuade the Crown that their perceptions are correct.

There also is not a correlation between who wins a Crown Tournament and how far they traveled to the tourney. Even though the winners of Crown Tournament in the past ten years have traveled twenty-nine fewer miles on average than the rest of the paid members, it is not a statistically significant number. The fact that Crown Tournaments are usually held closer to the center of the kingdom and that many of the more recent Crowns have been from the Fort Worth area could account for this lower number.

However, a positive relationship was found in the second half of the third geographic question. The average travel distance of people inside and outside of their region does differ according to which awards a person has. After running 363 networks

of travel patterns with ArcView's Network Analyst, it is clear that the higher an individuals rank, the farther on average they travel. Several statistical tests then illustrated that many of the travel distance averages are different. These tests show that the people without any awards travel far less than the average person with awards. For the most part, travel distances seem to increase with the precedence of an individual's award level. The only exception to this is with the royal-level group.

With some knowledge of the SCA, these patterns do make sense. The more individuals travel, the more likely they are to be seen by more people who will acknowledge their skills with awards. Usually, by the time people become a peer, they have traveled and done so much that they become "burned out" on the SCA, either for a short time or forever. This is especially true for past Crowns. Many royals take a needed, and long, break after being Crown.

The first non-geographic research questions asked what socioeconomic variables can be used to determine whether or not someone will join the SCA. After the statistical tests were run, there are not many. Having a high school diploma and a job are the two best variables, but even they did not fit the regression line very well. The eclecticism of SCA members is so great that there are not many socioeconomic variables that can be used to focus membership drives in certain areas.

The LQ for groups with a larger number of members versus groups with a fewer number of members for the most part shows that groups with over one hundred members have a concentration of peers and royals while groups with less than fifteen members have a deficit. The one exception to this is the Shire of Blacklake, which has twelve members with one member of the chivalry, one pelican and one past Crown.

The statistics also show that the number of chivalry in a group greatly influences whether a member of that group would win Crown Tournament. Crown Tournament determines the best fighter on the field that day, as well as usually in the kingdom at the time. It only makes sense that being able to practice with higher caliber fighters on a more regular basis will prepare fighters better for Crown Tournament. The statistics show that a fighter is more likely to win Crown Tournament if they travel to groups like Stargate, Steppes, Elfsea, and Wiesenfeuer where there are lots of members of the chivalry with which to fight and practice with.

But, hearkening back to the inconclusive socioeconomic variables question, the average annual income of a group's geographical area does not have an effect on the number of peers and royals from that group. The correlation is weak on a not per capita basis and extremely weak per capita, once again showing that SCA members are too eclectic to pin down into one, or even a few, social or economic classes.

A final observation from the questionnaire is to determine how many people who play in the SCA are paid members. Surprisingly, about 80% of the people who answered the questionnaire are paid members. This is a far higher percentage than many people thought possible. It can possibly be due to the $3.00 non-member surcharge imposed by the Board of Directors of the SCA, Inc. on all non-members who come to SCA events. Many people who go to several events a year bought memberships for about $30 a year, rather than pay an extra fee at the gate.

In summary, there are many ways in which this research can benefit geography as a discipline. Some of the techniques used to study the kingdom of Ansteorra, spatially and socioeconomically, can be used to study other cultural, recreational, or volunteer

organizations. There is definitely unexplored territory in the study of how far people are willing to travel to have fun or to succeed in a hobby or recreational group. Even in the SCA, there are other kingdoms that are amazed Ansteorrans are willing to travel five or more hours for a one day event. How do other types of hobbies compare? Are people who re-create the Civil War willing to travel those distances? How about model train enthusiasts or home brewers?

Along these lines, what about success in those other groups? To be successful, do people have to live near other successful people, or just large groups of similar enthusiasts? Do they need to fit a certain socioeconomic criteria, or are there just a certain set of hurdles they need to jump before becoming successful in their organization? There are still lots of open ground when it comes to studying cultural groups with quantitative methods. Hopefully this research is just one of the many to come.

FUTURE RESEARCH

There are many other studies that can be done in this area in the future. There are sixteen other kingdoms in the SCA in which a similar study can be conducted. Although all of the kingdoms are part of the SCA, Inc, the cultural and historical differences can sometimes be astounding. Each kingdom has its own unique award structure under the peerages and their focus can be quite different. In addition, there are also other historical recreation groups that can be compared to the SCA, such as Civil War re-enactors or the Buckskinners.

Further research in this kingdom could be expended to study all of the Crowns, instead of the past twenty. Much of the information about them would be hard to find,

but it might be worth it in the end. In the early years of the kingdom, people were spread out much further and the Crowns seemed to be more clustered. It would be interesting to see if the distance between peers and Crowns would change when all fifty Crowns are studied.

It would also be interesting to see a socioeconomic study of the SCA done only with data from SCA members, rather than the entire census population. By collecting information from those who participate in the SCA, more research could be conducted on the socioeconomic outline of the SCA and how membership drives and recruitment could be focused in certain areas.

Instead of studying the demographics of what type of person would most likely join the SCA, there could be a certain type of personality for those who would join. There are several personality tests that can be administered quickly and easily either online or in person. It would be fascinating to see if personality is a better indicator of the type of person interested in the SCA, rather than socioeconomics.

If a second version of this thesis could be written, it would be nice to try and determine the zip code that all of the peers lived in, rather than just assigning them a group. Since some of that information is twenty-five years old, a study group may have to be created of only those peers elevated in the past ten years to coincide with the study group of Crowns. It would also behoove the researcher to figure out a way to define an active player in the SCA and then determine how many paid members there are compared to those who are active. That definition could also be used to weed out the non-active peers and Crowns in some of the questions, in an effort to get a more accurate reading of the spatial distribution of peers throughout the kingdom.

The same questions could still be pondered upon, but from the other direction.

One possibility is when looking at the travel patterns of individuals, to determine which

events they went to, the travel pattern could be turned around and each event looked at to

determine where the people travel from to go to the event. It would be interesting to see

if there are specific groups, sizes, or types of events that people are willing to travel

further for.

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APPENDICES

APPENDIX ONE: GLOSSARY

Anachronism – something taken out of its place in time.

Ansteorra – a kingdom in the SCA, comprised of Oklahoma and Texas (except the portion in the Mountain Time Zone).

Arts and Sciences – the day-to-day activities of the middle ages reproduced in the SCA. i.e. – cooking, dancing, making baskets, coursing hounds, making armor, weaving, etc.

Awards – given to people who have gone above and beyond the average person in their skills and research of the Middle Ages.

Award of Arms (AoA) – the introductory award in the SCA. Usually given after a year or two of playing to those who show basic knowledge of the society and to recognize participation while encouraging new members.

Baron/ess – They oversee a large local group called a Barony and act as representatives of the Crown.

Barony – A Barony is a branch within the SCA -- an official organization. A Barony must have a Baron and/or Baroness, as well as fit within specific guidelines defined in the SCA's Corpora and By-Laws for the size and activity levels of the organization.

Board of Directors (BoD) – the "Congress" of the SCA, Inc.

Canton – A Canton is a small branch within the SCA. It is often (but not always) a sub-group contained within a Barony or Province.

Circle – A meeting of a peerage order to discuss potential candidates and other business.

College – A College is a branch based on a University campus. The guidelines for activity levels are more loosely defined for a College, as they have some of the most transient populations in the SCA.

Corpora – the governing rules of the SCA, Inc.

Count/ess – someone who has been king or queen once.

Crown – the King and Queen of a kingdom. Also used to refer to the tournament that is held to determine who will be the next King and Queen.

Crown Lands – zip codes within a kingdom that have not been claimed by a group.

Duke/Duchess – someone who has been king or queen two or more times.

Event – An SCA gathering, usually with a special medieval theme. Events can be held indoors at a variety of sites or at campgrounds.

Fighting – combat in the SCA. Used to refer both to chivalric and rapier fighting.

Grant – the mid-level award in the SCA. Given to those who have shown great promise in combat, the arts and sciences, or service.

In fief – a person in fealty to the Crown.

King – the ceremonial head of a kingdom, or the person who won Crown Tournament.

Kingdom – A branch of the SCA with the ceremonial leaders King and Queen.

Kingdom Law – the written rules of a kingdom. Can be changed by the King and Queen, but cannot be more lenient than Corpora.

Knowne World – the parts of the Earth that belong to an SCA group.

Order of Precedence (OP) – A listing of all the individual's in a kingdom that have received an award to show who is higher in rank.

Peer – a person in the SCA who has been granted a peerage (Chivalry, Laurel, or Pelican).

Peerage – the highest level of award in the SCA. Peers are Masters or Mistresses in their activities, be they fighting, arts and sciences, or service.

Persona – The character assumed by an SCA member. This may involve anything from adopting a name to developing a full history for a person born and raised at some specific place and time in the period covered by the SCA.

Populace – the people who play in the SCA.

Prince/ss – The Crown Prince and Princess are heirs to the kingdom, chosen by combat in the Crown Tourney. They hold these titles until their coronation as King and Queen.

Principality – An SCA branch that has a ceremonial head of a Prince and Princess.

Province – A branch with the same requirements as a Barony, but not having the ceremonial leader of a Baron and/or a Baroness.

Queen – the ceremonial head of a kingdom, consort to the king.

Riding – A small, Canton-equivalent branch dependent upon the support of a Province. A Riding bears the same relationship to a Province that a Canton does to a Barony.

SCA – Society for Creative Anachronism. A non-profit, educational organization begun in 1966 to research and recreate pre-seventeenth century European history.

Seneschal – the representative for the local group in the outside world. Acts as the chief administrative officer, similar to a group's president.

Service – volunteering time to help organize events and activities.

Shire – A small, usually autonomous local branch.

Society – refers to the Known World of the SCA.

Stronghold – A small SCA branch based in a military installation of some sort (often used for US Army or Air Force Bases).

APPENDIX TWO: SUMMARY TABLE OF GROUPS IN ANSTEORRA

Branch	Status	Region	City, State	Total Population	Paid Members
Adlerrsruhe	Shire	Western	Amarillo, TX	305,787	30
Bjornsborg	Barony	Southern	San Antonio, TX	1,527,559	76
Blacklake	Shire	Western	Midland/Odessa, TX	250,048	21
Bonwicke	Barony	Western	Lubbock, TX	346,504	38
Bordermarch	Barony	Coastal	Beaumont, TX	408,315	43
Brad Leah	Shire	Northern	Wichita Falls, TX	282,409	24
Bryn Gwlad	Barony	Southern	Austin, TX	1,126,341	124
Chemin Noir	Canton (Northkeep)	Northern	Bartlesville, OK	38,916	0
Crossrode Keep	Shire	Western	Big Spring, TX	98,474	6
Dragonsfire Tor	Canton (Elfsea)	Central	Stephenville, TX	87,268	14
Eldern Hills	Barony	Northern	Lawton, OK	255,843	42
Elfsea	Barony	Central	Fort Worth, TX	1,175,192	97
Emerald Keep	Shire	Central	Waco, TX	221,545	26
Ffynnon Gath	Shire	Southern	San Marcos, TX	264,902	15
Gates Edge	Shire	Coastal	northern Houston, TX	322,904	15
Glaslyn	Canton (Steppes)	Central	Denton, TX	232,966	15
Greywood	Shire	Coastal	Nacogdoches, TX	255,891	18
La Marche Sauvage	Shire	Coastal	McAllen, TX	952,745	13
Lindenwood	Canton (Steppes)	Central	Irving, TX	354,055	10
Loch Ruadh	Canton (Elfsea)	Central	Weatherford, TX	473,478	41
Loch Soilleir	Barony	Coastal	Clear Lake, TX	880,102	80
Mendersham	Shire	Western	Abilene, TX	151,699	19
Middleford	Shire	Southern	Killeen, TX	233,750	35
Mooneschadowe	Shire	Northern	Stillwater, OK	178,155	41
Namron	Barony	Northern	Norman, OK	379,602	64
Northkeep	Barony	Northern	Tulsa, OK	1,017,099	94
Ravens Fort	Barony	Southern	Huntsville, TX	492,294	55
Rivers Run	Canton (Wiesenfeuer)	Northern	Ponca City, OK	33,743	0
Rosenfeld	Shire	Central	Tyler, TX	571,242	34
Seawinds	Shire	Coastal	Corpus Christi, TX	498,138	36
Shadowlands	Shire	Southern	Bryan/College Station, TX	243,398	22
Stargate	Barony	Coastal	central Houston, TX	2,364,092	133
Steppes	Barony	Central	Dallas, TX	2,854,956	139
Stonebridge Keep	Shire	Coastal	Victoria, TX	203,229	14
Tempio	Shire	Southern	Temple, TX	139,202	25
Thuein	Incip Shire	Southern	Kerrville, TX	46,402	4
Tir Medoin	Incip Canton	Southern	Rockdale, TX	25,751	0
Trelac	Shire	Western	San Angelo, TX	110,322	14
Twr Cath	College	Coastal	central Houston, TX	30,562	0
Wastelands	Shire	Northern	Enid, OK	71,538	12
Westgate	Canton (Stargate)	Coastal	western Houston, TX	501,560	34
Wiesenfeuer	Barony	Northern	Oklahoma City, OK	813,699	54

APPENDIX THREE: QUESTIONNAIRE

1. What is your SCA name?

> (The test subject's name will be run through a one way hash, such as SHA or MD5. A one way hash is an algorithm that turns messages or text into a fixed string of digits, usually for security or data management purposes. The "one way" means that it's nearly impossible to derive the original text from the string. A one-way hash function is used to create digital signatures, which in turn identify and authenticate the sender and message of a digitally distributed message. By hashing the entries, I will be able to reasonably assure originality without compromising anonymity.)

2. What is your zip code?

> (This will be used as a starting point for the locational and spatial analyses I will conduct)

3. What level of awards do you hold in the Society for Creative Anachronism, both in-kingdom and out-of-kingdom?

> a. AoA level A&S award
> b. AoA level service award
> c. AoA level fighting award
> d. Grant level A&S award
> e. Grant level service award
> f. Grant level fighting award
> g. Member of the Laurel
> h. Member of the Pelican
> i. Member of the Chivalry
> j. Member of the Royal family

4. Which events have you been to since January 2002? What events are you planning on going to until January 2004?

> (Below will be a list of all events in 2002 and 2003 (see attached page) to select)

5. What type of local activities do you attend?

> a. Populace meeting
> b. A&S meeting/guild meeting
> c. Fighter practice
> d. General weekly/monthly meetings

6. How many times do you participate in your group's local activities?

> a. Once a week
> b. Twice a week
> c. Three or more times a week
> d. Once a month
> e. Twice a month
> f. Three or more times a month
> g. Never

h. I participate in another group's weekly activities

7. How many times a month does your local group meet?
    a. Once a month
    b. Twice a month
    c. Three times a month
    d. Four or more times a month

8. If you participate in another group's weekly activities, which group is it?
    (A list of all groups in the kingdom will be added)(See attached page)

9. What activities of another group do you participate in on a weekly basis?
    a. Populace meeting
    b. A&S meeting/guild meeting
    c. Fighter practice
    d. General weekly/monthly meetings

10. How many years have you been participating in the SCA, Inc.?

11. Have you held any Kingdom, Regional or Local level offices? (Includes the actual office or a deputy position)
    a. Seneschal
    b. Treasurer
    c. Arts & Sciences
    d. Earl Marshal
    e. Hospitaler
    f. Chronicler
    g. Chiurgeon
    h. Minister of Children
    i. Historian
    j. Herald

12. Are you a paid member of the SCA, Inc.?
    a. Yes
    b. No

APPENDIX FOUR: IRB FORMS

**Oklahoma State University
Institutional Review Board**

Date : Monday, June 09, 2003   IRB Application No   AS0386

Proposal Title: A SPATIAL ANALYSIS OF MEMBERSHIP AND SUCCESS IN THE KNIGDOM OF
ANSTEORRA

Principal
Investigator(s) :

April Gillian   Allen Finchum
15 N. Grandview   219 Scott Hall
Stillwater, OK 74075   Stillwater, OK 74078

Reviewed and
Processed as: Exempt

Approval Status Recommended by Reviewer(s) : Pending Revision

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You will need to make the following revisions to your research project before approval is
granted. Please Submit a revised IRB application incorporating these changes. If you
have questions, or wish to discuss the reviewers' comments, please schedule a meeting or
call Dr. Carol Olson, Director of University Research Compliance (405-744-1676), or
Sharon Bacher, IRB Executive Secretary (405-744-5700) in 415 Whitehurst.

The reviewers' comments are listed on the following page. To receive approval, they must be
addressed and/or incorporated into the research protocol.

Approvals are valid for one calendar year, after which time a request for continuation must be
submitted. Any modifications to the research project approved by the IRB must be submitted for
approval with the advisor's signature. The IRB office MUST be notified in writing when a project is
complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt
projects may be reviewed by the full Institutional Review Board.

Oklahoma State University
Institutional Review Board
Reviewer Comments

Date : Monday, June 09, 2003   IRB Application No   AS0386

Proposal Title: A SPATIAL ANALYSIS OF MEMBERSHIP AND SUCCESS IN THE KNIGDOM OF
ANSTEORRA

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1. What steps will you take to insure that the identity of survey respondents cannot be tracked?

2. Where is the website located, who will maintain it, how long will data be kept, who will have access to the website information?

Signature   *Carol Olson*

Carol Olson, Director of University Research Compliance

Monday, June 09, 2003

Date

Oklahoma State University
Institutional Review Board

Protocol Expires: 7/1/2004

Date: Wednesday, July 02, 2003   IRB Application No AS0386

Proposal Title: A SPATIAL ANALYSIS OF MEMBERSHIP AND SUCCESS IN THE KINGDOM OF
ANSTEORRA

Principal
Investigator(s):

April Gililan   Allen Finchum
115 N. Grandview   219 Scott Hall
Stillwater, OK 74075   Stillwater, OK 74078

Reviewed and
Processed as: Exempt

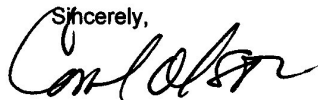Approval Status Recommended by Reviewer(s): Approved

---

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of
the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of
individuals who may be asked to participate in this study will be respected, and that the research will be
conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol
   must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar
   year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are
   unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the
IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive
Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson, Chair
Institutional Review Board

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Oklahoma State University
Institutional Review Board

Protocol Expires: 7/1/2004

Date: Tuesday, September 30, 2003

IRB Application No AS0386

Proposal Title: A SPATIAL ANALYSIS OF MEMBERSHIP AND SUCCESS IN THE KINGDOM OF ANSTEORRA

Principal
Investigator(s):

April Gillilan
115 N. Grandview
Stillwater, OK 74075

Allen Finchum
219 Scott Hall
Stillwater, OK 74078

Reviewed and
Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved   **Modification**

Please note that the protocol expires on the following date which is one year from the date of the approval of the original protocol:

Protocol Expires: 7/1/2004

Signature:

Carol Olson

Tuesday, September 30, 2003
Date

Carol Olson, Director of University Research Compliance

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

APRIL LYNN GILLILAN

Education:

Completed the requirements for the **Masters of Science in Geography** degree at Oklahoma State University in December 2004.

Thesis: A SPATIAL ANALYSIS OF MEMBERSHIP AND SUCCESS IN THE KINGDOM OF ANSTEORRA

Bachelor of Arts in Geography
Applied Resource Management Option; Certificate in GIS
December 2000, Oklahoma State University

Work Experience:

Computer Graphics Operator
Engineering Division, Water & Wastewater Department, City of Oklahoma City
September 2001–July 2002

GIS Technician
Engineering Division, Public Works Department, City of Manhattan, Kansas
January 2001–September 2001

Cartographic Assistant
Cartography Services, Department of Geography, Oklahoma State University
May 2000–January 2001, May 2003 - present

GIS Research Assistant
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Kansas Association of Mappers, member
Association of American Geographers, member
Gamma Theta Upsilon, member
Phi Kappa Phi, member