


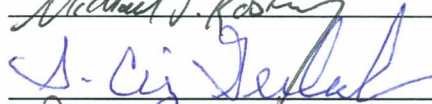
YOUTH CREATING SUSTAINABLE COMMUNITIES IN RURAL ALASKA

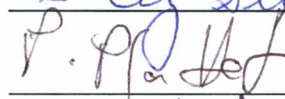
By


Irmelin Gram-Hanssen

RECOMMENDED:

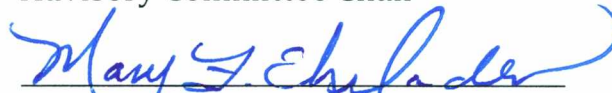








Advisory Committee Chair



Director, Northern Studies Program


APPROVED:



Dean, College of Liberal Arts



Dean of the Graduate School



Date

YOUTH CREATING SUSTAINABLE COMMUNITIES IN RURAL ALASKA

A

THESIS

Presented to the Faculty
of the University of Alaska Fairbanks

in Partial Fulfillment of the Requirements

for the Degree of

MASTER OF ARTS

By

Irmelin Gram-Hanssen, B.A.

Fairbanks, Alaska

August 2012

Abstract

In this thesis I discuss the ability of the people of Igiugig to define their strengths and vulnerabilities as a village, and their ability to create innovative solutions in their conscious efforts to become a more sustainable village now and in the future. I argue that this process provides the village of Igiugig with a high degree of self-determination and increases its ability to move into the future on its own terms rather than terms defined solely by world politics and economics. A key component of Igiugig's process of becoming more sustainable is the accommodation and empowerment of its youth. The village makes an active effort to instill a feeling of belonging in its youth and encourages the young people to take an active part in the shaping of the village. The youth, categorized in this thesis as residents from age fourteen to thirty-one, make up roughly one third of the population in Igiugig and they contribute with a diverse set of resources that combined greatly enhances the strength of the community. Although all residents play an important part in Igiugig's sustainability efforts, it is this group of young people that in many ways is leading the development of the community. In order to accommodate the youth in this way and enable them to take on leadership the village has had to open up to change and compromise. While this has come with certain challenges, it has also to some degree strengthened the village by increasing diversity and thereby the ability to respond to change without jeopardizing the quality of life of the people living there.

With this thesis I attempt to show the strengths of a rural Alaskan community and explore the idea that there is tremendous potential for creating innovative and healthy solutions to the problems faced by many rural villages, in Alaska and elsewhere. I also emphasize the great need for open communication about values and goals within a community, and the equally important need for intergenerational collaboration and acceptance. Furthermore, I argue that state and federal policy can both aid and hinder this positive change, and that rural villages need to be shown the trust and help needed for them to become more sustainable.

Table of contents

	Page
Signature Page	i
Title Page	ii
Abstract	iii
Table of Contents	iv
List of Figures	vi
List of Tables	vi
List of Appendices	vii
Acknowledgements	viii
1. Introduction	1
1.1 Goals, Motivation, and Research Questions	1
1.2 Defining the Problems	3
1.3 Brief Introduction to Igiugig, Alaska	5
2. Theory, Methodology, and Methods	9
2.1 Theoretical Foundation	9
2.1.1 Defining Sustainability	11
2.1.1.1 Sustainability of What and for Whom?	11
2.1.1.2 Frameworks and Concepts	13
2.1.1.2.1 Vulnerability Analysis	14
2.2 Methodological Foundation	17
2.2.1 Community-Based Participatory Research	19
2.2.2 Conducting the Research	20
2.3 Methods	22
2.3.1 Choosing Interviewees	22
2.3.2 Qualitative Interviews	24
2.3.2.1 A Note on Values	25
3. Ethnohistorical Overview of Southwest Alaska	26
3.1 Southwestern Yup'ik Culture Before 1818	26
3.2 The Russian Period (ca. 1818-1867)	30
3.3 The Early American Period (ca. 1867-1950s)	33
4. Igiugig Today	38
4.1 Coming of the Community	38

4.1.2 The Alaska Native Claims Settlement Act.....	40
4.2 The People of Igiugig.....	44
4.2.1 Introducing the Youth.....	44
5. Sustainability Analysis.....	48
5.1 Population and the Connection to the Outside.....	49
5.1.1 Population.....	49
5.1.2 The Connection to the Outside.....	57
5.1.3 Summary of Key Points.....	62
5.2 Education and the Focus on Youth.....	64
5.2.1 Education.....	64
5.2.2 The Focus on Youth.....	72
5.2.3 Summary of Key Points.....	80
5.3 Economy and the Openness to Change.....	81
5.3.1 Economy.....	81
5.3.2 The Openness to Change.....	88
5.3.3 Summary of Key Points.....	98
5.4 Food and the Relationship With the Land.....	100
5.4.1 Food.....	100
5.4.2 The Relationship With the Land.....	110
5.4.3 Summary of Key Points.....	113
5.5 Energy and Innovation.....	115
5.5.1 Energy.....	115
5.5.2 Innovation.....	116
5.5.3 Summary of Key Points.....	120
5.6 Political Sovereignty and Communication.....	121
5.6.1 Political Sovereignty.....	121
5.6.2 Communication.....	126
5.6.3 Summary of Key Points.....	135
5.7 Summary of Key Findings from the Analysis.....	140
6. Discussion and Conclusions.....	141
References.....	148
Appendices.....	159

List of Figures

	Page
Figure 1.1: Location of Igiugig and nearby villages in southwest Alaska.....	6
Figure 1.2: Igiugig, Alaska.....	6
Figure 1.3: Downtown Igiugig	7
Figure 3.1: Cultural borders in southwest Alaska at the time of contact (roughly 1818).....	27
Figure 5.1: Location of the proposed Pebble Mine	92
Figure 5.2: Christina Salmon helping her grandmother, Mary Gregory-Olympic, cut up fish on the beach of the lake.....	104
Figure 5.3: The potato garden in Igiugig	106
Figure 5.4: The Igiugig greenhouse with individual and community plots.....	107
Figure 5.5: Weekly food costs for a family of four and gasoline prices for Portland, OR, Fairbanks, AK, and Bethel, AK	116
Figure 5.6: A family get-together at Mary-Gregory-Olympic’s house	131

List of Tables

Table 5.1: Overview of findings from the sustainability analysis.....	137
---	-----

List of Appendices

	Page
Appendix A. Example of Analysis Process	159
Appendix B. Statement of Informed Consent	160
Appendix C. Interview Guide	162

Acknowledgments

I would like to give my first and deepest thank you to the people of Igiugig. You have all made me feel very welcome in your community and have shared with me many of your thoughts and feelings, all of which I hope I have presented in a way that correlates with your intents. I admire your community and the lives that you live there and I have all the faith in the world that you are capable of maintaining this beautiful place for future generations to enjoy as well. You are a great inspiration to me and I hope that this thesis will inspire others as well. A special thanks to Elder Annie Wilson for making my stay especially enjoyable with tea and baked goods and games – in which you beat me one-handedly. Also a special thanks to Elder Mary Gregory-Olympic for letting me stay in your home and sharing your incredible knowledge with me. The next thank you goes to AlexAnna Salmon, without whom there would have been no thesis. Thank you for sharing your thoughts and home with me and thank you for believing in my research idea and helping me frame it in the right way so as to make it most beneficial for everyone involved. Thank you for taking the time to look through my drafts and give your invaluable insights into matters too complicated for me to figure out on my own. You are a true community leader and you carry the legacy of your father beautifully. I would also like to thank William Schneider, my committee chair, who believed in my research even before I believed in it myself. Your knowledge and wonderful approach to research has been of great value to me. Also a great thanks to my three remaining committee members, Mike Koskey, Craig Gerlach, and Patrick Plattet who gave me valuable comments from their fields of expertise and made my research more well-rounded. A big thanks also goes to Mary Ehrlander, Director of the Northern Studies Program and to Terrence Cole, Director of the Office of Public History. You have both supported my studies and my research in so many ways and made my time at UAF fun and stimulating. Knowing that I can always come to you for help is so incredibly valuable and it has without a doubt helped me succeed in the Northern Studies Program. Last I would like to express my thankfulness to the organizations and institutions that made my studies and my research possible through generous grants and scholarships. Without the help of the Fulbright Commission, the Northern Studies Program, the William R. Hunt History Scholarship, the College of Rural and Community Development, the Oticon Fund, the Nordea Fund, and the Knud Højgaard Fund this great adventure would not have been possible.

1. Introduction

1.1 Goals, Motivation, and Research Questions

What can community sustainability be taken to mean in a rural Alaskan context in 2012? What are some of the barriers and possible solutions people identify in their attempts to lead healthy and fulfilling lives? What is the role of young people in the sustainability efforts of these communities? How do young people see themselves in the context of their village and what role do they wish to play in the continuation and development of their home communities? These are some of the questions asked in this thesis; a document that attempts to capture the nature and potential for sustainability of the lives led by young Alaska Natives living in contemporary rural Alaska.

Where one set of questions addresses the youth, another set of questions addresses the community in which they live. The community that constitutes the physical and social framework for the questions asked in this thesis is the community of Igiugig (Ig-ee-AH-gig), Alaska. This village of roughly sixty-six people is located where Lake Iliamna feeds into the Kvichak (Kwee-Jack) River in the Lake and Peninsula Borough in southwest Alaska, with the mountains to the northeast and the ocean to the southwest. In many ways the words that make up this thesis are a tribute to this community and the people who live there – their strengths, their struggles and their beautiful pursuit to create a healthy community where future generations can live satisfying lives. Through the thesis I take a look at how the village of Igiugig has developed, what some of the current problems and possible solutions are, and where the community is likely to be headed in the future. These questions are illuminated through the eyes of Igiugig residents and in particular the youth.

I learned about the village of Igiugig in the spring of 2009 when I was taking a Community Development Strategies class in the Rural Development Department at the University of Alaska Fairbanks. Coming from Denmark and knowing very little about life in rural Alaska, I learned about the many issues concerning community development in this part of the world, how people living in these communities work on improving their lives, and what barriers they encounter in this process. The newly assigned village administrator of Igiugig, AlexAnna Salmon, then twenty-three years old, gave a presentation to the class about her community and the sort of solutions they were designing to fit their problems. Although I had heard many inspiring stories from my fellow students about their communities, AlexAnna's presentation left a special impression on me. AlexAnna talked

about recycling programs, wind turbines, job creation, youth involvement, the process of defining community values and goals, and about the challenges of running a community as a young woman. The impression I was left with was that of a strong and creative community that was very proactive about dealing with their problems.

When I began my graduate studies in the Northern Studies Program at the University of Alaska Fairbanks in the fall of 2010, what AlexAnna had told about her community was still on my mind and I chose to focus my thesis on the community of Igiugig. Some of the things AlexAnna talked about in her presentation made me wonder how this community had reached a point where they were able to identify their strengths and deal with their problems in a creative and largely successful manner. It also made me wonder if the experiences of Igiugig would be worthwhile for other communities to learn about and be inspired by. Last but not least, what AlexAnna told about Igiugig did not fit the picture of a “typical” Native village in rural Alaska as depicted in the popular media. I thought that if there was a counter-narrative to the general tale of life in rural Alaska and the sustainability of this life, it needed to be told!

The long-term aim of the thesis is manifold. The research aims at illuminating the ways in which the community of Igiugig functions and how its residents live their lives. It is also hoped that it can be a source of inspiration, both for the people of Igiugig to reflect upon and take into the future as well as for other communities in rural Alaska to find ways to face their own problems and find their own strengths. While this thesis does not attempt to present and discuss community sustainability and the lives of young people in rural Alaska in general, I still believe that the general can be illuminated through the particular, and that the small story of one village can contribute to an understanding of the big story of the communities and peoples across rural Alaska.

These are the overall ideas and goals that define the context in which the following research questions are situated:

- 1) In what ways is Igiugig working towards being a sustainable community and what are some of the challenges and solutions that can be identified in this process?

2) What is the role of youth in the sustainability efforts of the community and to what extent is the village able to accommodate the wants and needs of its youth?

3) How does the identification of challenges and solutions in Igiugig contribute to the overall understanding of community sustainability in rural Alaska and elsewhere?

1.2 Defining the Problems

Rural Alaskan communities are faced with a variety of problems that in combination threaten their health, viability, and sustainability. One clear problem for all rural communities is the increasing dependence on fossil fuels. The majority of villages in rural Alaska are not on the road system and only accessible by air or sea and because of their remote location everything must be shipped or flown in. Because of this, the cost of living is up to 150 percent higher in rural Alaska than in the bigger cities, such as Anchorage, Fairbanks, and Juneau (Fried 2010, 5). Everything from food to electricity is more expensive in the villages and this trend correlates with the number of individuals who fall under the federal poverty line¹. Whereas only 9.5 percent of Alaska's residents were below the U.S. federal poverty line in 2010 compared to a national average of 13.8 percent (United States Census Bureau 2010), the rural boroughs in parts of Alaska had as high as 26 percent of its population living under the poverty line. In 2008, 16.6 percent of the Lake and Peninsula Borough's residents were below the poverty line (Boston 2008, 1).

When fuel prices spike it affects access to nutritious country foods and the ability to pursue hunting, fishing, trapping, and other subsistence activities (Loring and Gerlach 2009, 466; Loring et al. 2011, 74; Gerlach et al. 2011, 95-96). These activities depend on fuel for four-wheelers and snow-machines as well as the indirect cost of transporting ammunition and parts for repairs, also related to fuel. The difficulties people experience in regards to subsistence activities have helped cause an increase in the consumption of store bought foods. This increase has contributed to what is referred to as a "nutrition transition" (Popkin and Gordon-Larsen 2004) in many rural communities, which has had a significant impact on the increase of life-style related diseases (Bersamin et al. 2006, 1055). Lack of access to

¹ The federal poverty line is calculated based on income relative to measure of need (poverty thresholds).

nutritious food, especially country foods that correlate with cultural values as well as preference is a general concern throughout rural Alaska. According to their 2012 study on food security, Feeding America estimates that over 30 percent of the inhabitants in some rural areas of Alaska are food insecure. This stands in stark contrast to the national average of 16.6 percent (Feeding America 2012). Because subsistence activities are not only about accessing food but carry with them a cultural component of immense importance to most Alaska Native cultures, the implications of the decrease in such activities become increasingly complicated. Intergenerational relations, cultural identity, and the continuation of culture and language are some of the areas that are greatly affected by the decrease in subsistence related activities among Alaska Natives (Gerlach et al. 2011, 89; Holthaus 2008, 73-75; Loring 2007, 104). The remote location of rural villages also affects the availability and accessibility of social services, including but not limited to health, education, and legal matters, and the access to such services are generally speaking less than in the bigger cities and in some communities non-existent. Access to such services often means expensive travel to regional hubs or one of the larger urban Alaskan centers such as Anchorage or Fairbanks (Alaska Center for Rural Health 2011).

Another pressing issue is the lack of employment opportunities, a problem that contributes to the high percentage of low-income families and a high outmigration rate, especially among young adults and particularly among women (Hamilton and Seyfrit 1993, 261; Hamilton and Seyfrit 1994, 189; Huskey, Berman and Hill 2004, 83; Howe 2009, 71). The problems outlined above are likely linked to other issues faced by rural Alaska Native residents, such as health problems. Overall, Alaska Natives are more prone to suffer from a handful of health problems than the average U.S. citizen. High rates of cancer, type-2 diabetes, and heart disease is characteristic of rural Alaska and the number of people suffering from alcohol and drug abuse is much higher among this population than any other in the United States. Other troubling rates include domestic violence, homicides, and suicides. Homicide and suicide rates are particularly high among young Alaska Native men (fifteen to twenty-four year-olds) with 141.6 suicides per 100,000 annually from 2000 to 2009. The national average is 11.5 per 100,000 (State of Alaska Health and Social Services 2010).

Because of issues such as the ones outlined above, it becomes critical to look at how to improve the lives of people in rural Alaska and how to enhance community sustainability with all that this is taken to mean in the given context. Because the youth are the ones who,

if any, will secure the continuation of their home villages into the future, this group is of particular interest when talking about community sustainability. The alarmingly high rates of youth outmigration from rural Alaska indicate that they will not automatically stay. A discussion on how youth are defined and a presentation of who the youth of Igiugig are will follow in chapter 2 Theory, Methodology, and Methods.

1.3 Brief Introduction to Igiugig, Alaska

Southwest Alaska is roughly defined as stretching from the Bering Sea in the west to Cook Inlet in the east, and from the upper reaches of the Kuskokwim-Yukon delta in the north to the Alaska Peninsula in the south. As of 2011, southwest Alaska was home to 41,613 people (Department of Labor and Workforce Development 2011a). Located where Lake Iliamna feeds into the Kvichak River, Igiugig is named after its location: in Yugtun (the Yup'ik language), Igiugig means, "like a throat that swallows water." Culturally, Igiugig is largely a Yup'ik community, although the lake area is an intersection of traditional Yup'ik, Alutiiq, and Athabascan² lands and clear cultural borders are hard to define.

It is not only the name of Igiugig that is determined by its location. Throughout the history of the place, from before it became a village, the river and lake have influenced the life of people living there. Igiugig is a fishing community, although the number of commercial fishing permits owned by Igiugig residents has dwindled in recent years. Subsistence fishing is the main activity in the summer months and sockeye salmon is a main staple in the diet of people in Igiugig. The village is small, with an average of sixty-six permanent residents in the winter months. The population greatly increases during the summer when sport-fishing tourists from all over the country come to the area to experience the phenomenal sockeye salmon and rainbow trout runs. Igiugig is not on the road system and residents and tourists alike have to fly from Anchorage, Dillingham, or King Salmon to get to and from the village. A return ticket to Anchorage with the semi-local airline, Dena'ina Air Taxi, is approximately \$625 (in 2011). This is more than it costs to fly from Anchorage to Seattle and back. The lake and river provides access to other villages in the area and tundra trails are utilized throughout the year with four-wheelers and snow-machines.

² The Alutiiq are also known as Sugpiaq and the Athabascan as Dena/Denaa/Dene. However, because Alutiiq and Athabascan are most commonly used when referring to these cultural and linguistic groups, these are the names that will be used throughout this thesis.

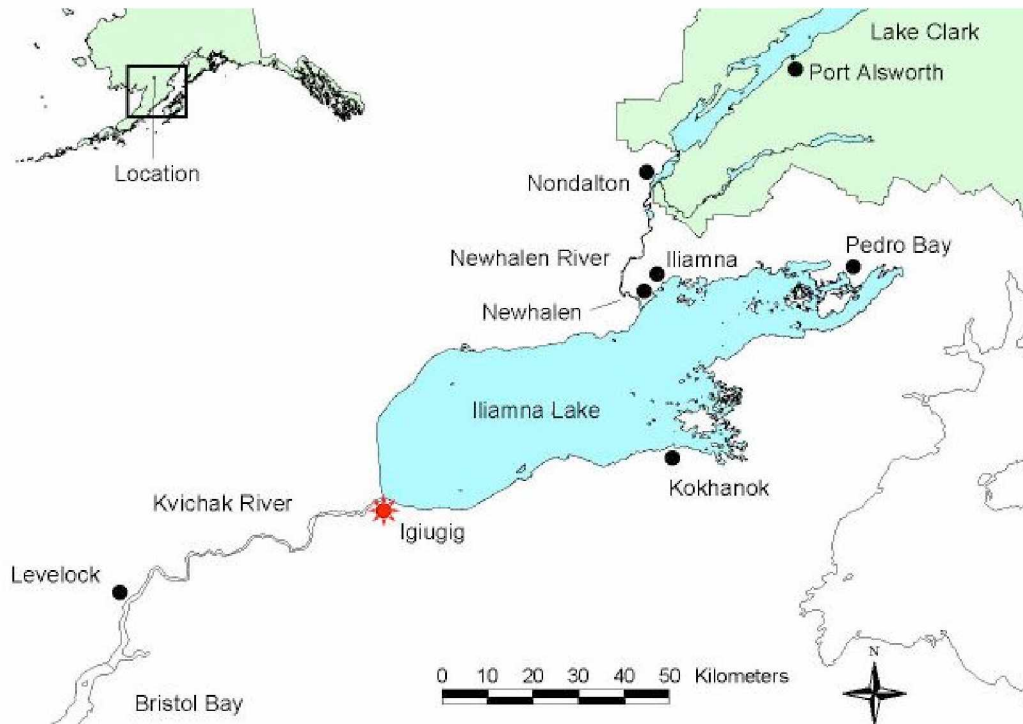


Figure 1.1: Location of Igiugig and nearby villages in southwest Alaska (Courtesy of the Igiugig Village Council)



Figure 1.2: Igiugig, Alaska (courtesy of the Lake and Peninsula School District)



Figure 1.3: Downtown Igiugig (courtesy of the Igiugig Village Council)

Igiugig is located within the Lake and Peninsula Borough, which is home to a total of 1,693 people (Department of Labor and Workforce Development 2011a), 72 percent of whom identify as Alaska Native (Department of Labor and Workforce Development 2011b). As of March 2012, Igiugig had thirty-four housing units, only twenty-one of which were permanently occupied. Some of the unoccupied houses are owned by people who only live in Igiugig seasonally, and the thirteen supposedly vacant houses are therefore not all available for other present or future Igiugig residents to occupy. During the 2010/2011 school year the Igiugig School had eleven students in grades K-12 and pre-school with two teachers. For a small Alaskan village, Igiugig's physical infrastructure is good and includes a health clinic with two health aids, a Russian Orthodox church, a hanger, a barge landing, a Village Public Safety Officer (VPSO) office, a fire station, a tribal library, a power plant, a generator building, a landfill, three wind turbines, a greenhouse, a village store, and six rental homes. The village is divided into an old and new part. The old part is located on the mouth of the river where some of the community Elders have fish camps. The new part of the village is a few miles down a newly constructed dirt road, down river from the old part of town. The Igiugig Village Council is the governing entity in Igiugig and the Igiugig Native Corporation is the legal owner of the village lands as settled by the Alaska Native Claims Settlement Act in 1971. For twenty-five years the late Dan Salmon was village administrator in Igiugig and after his untimely passing in 2007 his second oldest daughter, AlexAnna Salmon, took over the position.

In many ways the village of Igiugig is faced with similar issues as the ones discussed at the beginning of this chapter. Like all communities they have had to figure out how to deal with their problems, by defining their values and goals and designing solutions that fit these. What these possible solutions look like is what will be explored in this thesis.

2. Theory, Methodology, and Methods

2.1 Theoretical Foundation

When I ask about ways for rural Alaskan villages to become more sustainable and to develop into the future in a healthy way for all of their inhabitants, I am assuming that these villages ought to be sustained. The main assumption is that community sustainability is important and desirable and, more specifically, that rural villages in Alaska and elsewhere should continue to exist. This assumption is nested within other assumptions, namely those of human ecology and the parts of the sustainability sciences that argue for diversity as a key ingredient to the health and sustainability of any given system (Kassam 2009, 68-69; Sahtouris 2000, 11-13). The notions formulated by various scholars within human ecology and other fields have formed the ontology and epistemology of this research: my understanding of the nature of life and how it can be known.

My first ontological premise is that the world is holistic and that all parts of life – the organic and inorganic; the concrete and abstract – are part of a whole (Edwards 2005, 9; Sahtouris 2000, 52). Therefore, an investigator must recognize that the subject of study is not to be understood completely in isolation but must be understood in the context of the complex web of which it is a part. This idea does not deem isolated research useless but demands that the object of study must at some point be taken out of its isolation and understood within the whole in order to achieve an integrated assessment (Gallopín 2006, 294).

Another ontological premise is that culture is in fact the context in which all is understood and experienced (Holthaus 2008, 15-49 *passim*). Culture is not an aspect of life along with an endless list of other aspects, but is rather the foundation from where these aspects are understood and valued. This is not to say that culture is everything and therefore nothing. On the contrary, in this view culture becomes very important to investigate in order to understand and solve any given issue. What culture is taken to mean in the context of Igiugig will be addressed through the narratives of the interviewees throughout the analysis and will be discussed in chapter 6 Discussion and Conclusions.

The third ontological premise is the immense importance of diversity. That ecological diversity is necessary for a healthy ecosystem is a pillar in ecological thought. That the same is true for cultural diversity and the health of the human species is less well

known, or acknowledged, but is one of the main arguments found in some variations of human ecology (Bennett 1976). Beside a strictly academic or nostalgic interest in preserving different cultures and languages in order to study and “catalog” them, the importance of cultural diversity relates to the ability of the human race to adapt and evolve (Holthaus 2008, 40; Kassam 2009, 61). With the loss of cultural diversity the ways in which we are able to solve our problems become fewer and fewer. Simultaneously the problems we face become greater and greater in scale because we all depend on the same resources (Hawken, Lovins, and Lovins 1999, 2-5; Bennett 1976, 39-40, 137-139). Diversity and adaptability relate to place since spatial as well as temporal change will foster different contexts with different problems that require different downscaled and place-based solutions.

This leads to a fourth premise, one tightly connected to that of diversity, which is the need for local solutions. Of course, all communities face problems whose origin are beyond their control and many issues must be dealt with on a national, international or global scale. Similarly, the focus on local solutions does not mean that different communities cannot learn from one another and apply others’ design solutions to their own context. However, it is necessary for the community in question to define its own goals and how to reach them as well as its own problems and how they might be solved. This requires a lengthy and involved process that engages all members of the community and allows for all voices to be heard. Because culture is the foundation on which other aspects of life are understood, the importance of being context specific in design solutions is immense. Issues of employment, natural resource use, and political sovereignty all need to be understood in relation to the culture of the community and an accurate assessment and understanding of these issues is impossible outside this cultural context.

Understanding the world to be a complex web of connections and feedbacks on various scales and levels, I employ an interdisciplinary approach to my research, hoping to illuminate the issues at hand as accurately and fully as possible. I make some use of anthropological methods but reserve the freedom to engage with the material in the analysis on a handful of levels that transcend disciplinary boundaries. On a similar note, I will not follow any one method or theory from start to finish because I prefer to be inspired and guided by ideas and concepts rather than dictated by theory (Vayda 1983, 277-278). Although I find it important to have a theoretical framework and methodology as a foundation for the research, I find it more productive to let the “tools” be determined by the

task at hand, i.e. the object of analysis. In this case, the tools for analyzing and understanding the issues of the village of Igiugig have been chosen after a thorough attempt to understand the context in which these issues have developed.

The theoretical foundation of this research is guided by the notion of sustainability. However, what sustainability can be taken to mean is highly debatable and will have to be discussed before it is applied in the analysis.

2.1.1 Defining Sustainability

The problems of rural Alaskan communities outlined in the introduction all stand in the way for Alaska Natives in rural Alaska to lead healthy and satisfying lives and thereby they challenge the sustainability of rural Alaskan communities. To better gain an understanding of what sustainability can be taken to mean in this context, it will be helpful to have a brief discussion of the sustainability concept, its origin and its uses, as well as how it is applied in this research.

2.1.1.1 Sustainability of What and for Whom?

Sustainability is not only a concern in rural villages in Alaska but has become a goal for communities, institutions and nations all over the world. With the increasing awareness of human-induced climate change and the intersection of climate, social, political, economic, and other cultural issues, the need for sustainable development is evident. Institutions such as international aid agencies and the UN work on developing frameworks that help center their development projects on the goal of sustainability. These frameworks and concepts identify areas of focus, and set up indicators for evaluating the success of the development efforts. Many of these frameworks are based on work done in academia where complex (or not so complex) models are being produced that attempt to capture the issues in a manner that is consistent with the explicit and implicit goals of sustainable development. The question is how these frameworks and concepts are useful when it comes to assessing the strengths and weaknesses of a community and designing sustainable solutions for the future.

An unambiguous, measurable, and “accepted-by-all” definition of sustainability is difficult to find (Edwards 2005). This is especially so within a context of rapid and slow changes in the global climate and regional weather patterns, global population trends, globalization, international trade and tariffs, and uncertainty in global economic systems.

The meaning of words such as “improve,” “future,” and “conserve” have different meanings for different people. Thus, professors in sustainability sciences Bell and Morse (1999) argue that “this relativity lies at the heart of sustainability, and the latter is only meaningful if it is based on a trend over time and if we apply a value judgment as to what that trend should equate to” (Bell and Morse 1999, 16). According to Bell and Morse, sustainability can only be meaningful when goals and temporal and spatial limits of the sustainability effort are defined.

In most cases, the concept of sustainability derives its meaning from the Brundtland Report, *Our Common Future*, from 1987. The most commonly cited quote from the report is on its definition of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Edwards 2005, 17). However, this is still a broad definition with multiple potential meanings and applications, especially when downscaling to the local and regional. Things become even more complicated when more than the natural environment is included, such as social, economic, political, and other cultural elements – most often compiled in the ambiguous concept of “quality of life” or “wellbeing.” Because these concepts are generally understood as qualitative variables, quantitatively measuring the degree of “quality of life” or “wellbeing” in models for sustainability is problematic but possible if the appropriate indicators are incorporated into the analysis. According to Edwards (2005) the core of the contemporary sustainability paradigm consist of what he refers to as the Three E’s: ecology/environment, economy/employment, and equity/equality (Edwards 2005, 21-23). However, scientists and scholars from different fields, such as ecologists and economists, tend to have very different understandings of what sustainability means, and in practice there is obviously a difference between sustaining the ecosystem and sustaining the economy (Toman 1992, 4-6). In Gary Holthaus’ (2008) book *Learning native wisdom*, he argues that sustainability has to start with the recognition that everything in this world is connected:

A sustainable culture recognizes that all health – human health, the health of other species, community health, economic health, and the health of our institutions – is related, and all health is directly tied to the health of the soil. None of the former is possible for long without the latter. A sustainable culture recognizes the relationship between humans and other creatures, from microviruses to watershed ecosystems

to global ecology to the cosmos beyond our globe, and seeks to create healthy relationships with all. (Holthaus 2008, 122)

Regardless of how difficult it is to define, some working definition of sustainability is needed, since we cannot know if we have gained sustainability if we do not know what it is. However, too strict a definition of sustainability is not beneficial since “people differ in the environmental, social and economic conditions within which they have to live, and having a single definition that one attempts to apply across this diversity could both be impractical and dangerous” (Bell and Morse 1999, 12). This emphasizes the importance of defining goals and designing solutions that relate specifically to the system in question – be it an ecosystem, a nation, or a village. The focus on being context specific in any sustainable development efforts is connected to the recognition that the meaning of sustainability, like any idea generated within a cultural context, is relative and will change both in relation to space and time. Sustainability is an emergent property that needs to be understood contextually. Even within a relatively stable context, such as a community, what is viewed as sustainable development will likely change over time.

2.1.1.2 Frameworks and Concepts

Within the sustainability literature there are various models and frameworks that attempt to guide sustainable development in a variety of settings, such as the Sustainable Livelihoods Framework (SL) (DFID 2000) and the Millennium Ecosystem Assessment (MA) (Millennium Ecosystem Assessment 2005), to mention but two possible integrated frameworks for assessment. Such frameworks are helpful in that they provide a structure for analysis, and identify important questions to pose. For instance, the SL Framework proposes a development effort that takes its starting point in the livelihoods of people in a given context and attempts to strengthen the viability of these livelihoods. The MA Assessment focuses on the relationship between people and the ecosystem and attempts to enhance the sustainability of this relationship through a change in people’s use of the natural environment, or “ecosystem services.” However, many of these frameworks are developed by national, international, or governmental development agencies, and are written very generally so as to span a wide range of contexts that might have little to nothing in common. Of the social aspects that relate to people’s lives, such frameworks also tend to focus on economics, and exclude or only briefly touch on other issues of culture that are more qualitative in nature.

Whereas these frameworks do work as inspiration for sustainable development efforts in a given context, it is crucial that any such effort is also based on context specific and locally defined issues, values, and goals. That it is crucial to include the people who are subject to or will be affected by the development effort has been well established at this point (Fenge 1994, 1; Guyette 1996, 1-3; Kaul 2002, 2-5; Parfitt 2004, 537). However, grand-scale development agencies have a history of top-down development, largely due to political agendas and economic constraints (Kaul 2002, 12; Rondinelli 1993, 3-5; Guyette 1996, 131-133). When wanting to foster actual positive development, Inge Kaul (2002) with the United Nations Development Program (UNDP) argues that “the key question to address would be how local societies see their futures and how to move local developments, if at all possible, into these directions” (Kaul 2002, 12). This strong focus on the current state and future goals of a community as defined by the people in question points to a framework or effort that takes an inherently local approach.

2.1.1.2.1 Vulnerability Analysis

Besides grand-scale frameworks for sustainability, there are some key concepts within the natural and social sciences that can help shed light on issues of sustainability and how best to plan for the sustainable development of a system. One such concept, and the concept that will guide the analysis of this thesis, is that of vulnerability. Taking its starting point in ecology, the concept of vulnerability has been used to investigate the sustainability of ecosystems but in recent years it has taken on a form that to a higher degree allows for a community development perspective. In geographer Billie Turner et al.’s paper from 2003, vulnerability analysis is presented as a way to work towards understanding the sustainability of a variety of systems³. A sustainability analysis that is based on the concept of vulnerability works as a road map to show where a community is strong and where it is weak, and thus helps to identify the ways in which different aspects of the system are linked. In effect, vulnerability analysis is founded on the understanding of the interconnectedness of the natural environment and humans who live in it. Rather than dealing with humans and nature as two separate entities, the world is viewed as a “coupled human-environment system” (see Turner et al. 2003, 8074; Berkes and Folke 1998, 8-10; Chapin et al. 2006, 37;

³ In vulnerability analysis the term “system” is used. In this thesis, the system in question is the community of Igiugig. In this chapter, however, “system” and “community” will be used interchangeably depending on the context.

Gallopín 2006, 293). This notion is gaining ground in various disciplines (although certainly not all), including human ecology. Turner et al. aim at creating a framework for understanding and planning for sustainability in a context of global environmental change. As described above, “environment” in this context does not solely refer to the natural environment but includes the social realm, such as the economy and human health.

Turner et al.’s vulnerability analysis draws on three concepts: entitlement, coping through diversity, and resilience (Turner et al. 2003, 8075-8076). In a community context, entitlement refers to the ability of a community to act on challenges and changes in a way that makes sense in the given context. Political power is a key aspect of entitlement. Turner et al. argue that without political power the system will most likely adapt poorly to change or cope quite ineffectively with any change or unanticipated shocks to the system. Diversity allows the community to respond in a great variety of ways, in part because coping through diversity equals having multiple resource sets that can be drawn upon when necessary. Resilience is understood as the ability of a system to heal after a disruption by absorbing the shocks and bouncing back to the original state within a certain amount of time (Turner et al. 2003, 8075). The concept of resilience is sometimes used as the only indicator of sustainability and it is assumed that through enhancing the resilience of a system the sustainability will be enhanced as well.

However, it can be argued that resilience alone does not result in sustainability, since dealing with some disruptions and shocks might require a complete change of the system. This can especially be the case when both socioeconomic and ecological issues are considered. Rather than bouncing back to a previous state, sustainability can be seen as the ability of a system to sustain itself through effective responses to change (Gerlach et al. 2011, 100; Loring et al. 2011, 75). Whereas resilience theory operates with “state conditions,” sustainability is an emerging property rather than a fixed state and resilience and sustainability can therefore not be used as synonyms. There are many examples of resilient systems that are far from sustainable, such as the global economic system, and in relation to community development and human wellbeing it is not necessarily beneficial to design for a resilient system (Gallopín 2006, 295). However, including the concept of resilience in an analysis of community sustainability can be helpful in understanding strengths and weaknesses, and resilience can contribute to the strength of a system in some cases.

Turner et al.'s vulnerability analysis asks about the exposure of the system to internal and external shocks and disruptions as well as the sensitivity of the system to these. It asks about the links between the system and its subsystems and how the vulnerability of one affects that of the other. Furthermore, it asks about the changes in the system after a shock or disruption and how one such shock leaves the system more vulnerable to future shocks of various kinds (Turner et al. 2003, 8077-8078). The goal of vulnerability analysis is to understand how and where the system is weak and to reduce this weakness, and how and where the system is strong and to enhance this strength. The temporal framework of vulnerability analysis therefore includes both the present condition as well as how the system is likely to develop in the future⁴.

The degree of connectedness of the system to other systems can leave the system increasingly vulnerable or strong, depending on the nature of the connection. Operating with the concepts of over- and under-connectedness, vulnerability analysis asks about the independence or self-reliance of the system. Being over-connected to other systems, say the global food system, a community is more sensitive to the sudden cut of imports or increase in food costs potentially brought on by increasing fuel prices and transportation costs. Because of its dependence on the outside system, the community has not developed internal solutions to its needs and it is therefore sensitive to changes of the global market. On the other hand, being under-connected leaves the community incapable of reaching out to other systems for resources in case its own infrastructure for solving a problem breaks down. Using the example of the food system again, if the community supplies all of its own food and does not have any connection to outside sources, a failed harvest or hunting season can leave the community without food. Being sustainable therefore means being connected to other systems and subsystems in a manner that allows for diverse solutions, but that leaves the community relatively independent and self-reliant.

A vulnerability analysis cannot be exhaustive because of the complexity of any system and its connections to other systems. However, the aim is to identify crucial points of vulnerability and strength as well as linkages and feedback loops that can help the community to become less vulnerable to change and sudden shocks. What vulnerability and

⁴ What the concepts of vulnerability, sensitivity, exposure, resilience, etc. mean depends on the academic discipline and research context. This can become problematic when attempting to deal with a research topic in a holistic and thereby interdisciplinary way. For a discussion of this, see Gallopín 2006.

strength is taken to mean will depend on the given context and the vulnerability analysis leaves these definitions open and undefined. In considering sustainable futures for the community of Igiugig, the variables will largely be defined by the people of Igiugig in ways that are consistent with their values and goals as a community. The sustainability analysis of Igiugig is framed in part in terms of the concepts embedded in Turner et al.'s framework for vulnerability analysis. Where vulnerabilities lead to a weakening of the sustainability of the community, entitlement, diversity, and resilience are viewed as characteristics that have the potential to enhance the sustainability of the community. Throughout the analysis, these and other concepts, such as the notions of over- and under-connectedness, will be applied when appropriate and necessary.

2.2 Methodological Foundation

The choice of methodology and methods largely determines what results can be reached through the analysis. Where methods determine how the research will structure the approach to a question, the methodology determines the relationship between the researcher and the participants, what findings the research is able to produce, and how these findings can be presented (Carter and Little 2007, 1316-1318). Thereby, methodology goes beyond the questions asked and, if correctly applied, can be seen as a representation of the worldview or philosophy of the researcher and the research. The methodology and methods thereby determine the process of the research project, which in many cases can be just as important as the outcome and findings of the research. This is especially true when research involves people and communities.

For better or worse, the methodologies in social research have developed in sync with the development of the view and understanding of culture. From being inherently positivistic in nature, they have broadened out and have begun to question the notions of positivism. Linda Tuhiwai Smith (1999) describes this shift in relation to insider/outsider research. Striving for objectivity and neutrality, positivism requires that the researcher stand outside of the focus of study, e.g. the community or the culture. It is assumed that the outside researcher is able to get to the bottom of a given issue and find and articulate "truths" about that community or culture through observations and reflection. Methodologies that grow out of a critique of this approach, such as critical theory – especially feminist theory – and constructivism, have brought attention to insider methodology and more complex understandings of how to approach and understand the lives of people (Smith 1999, 137). These methodologies argue that it is both impossible and

unfavorable for the researcher to be objective and stand outside of the equation, due to the inherent subjectivity of human beings. Secondly, they argue that engaging with the people or communities at the center of the research allows for a deeper understanding of a given matter and gives the researched an opportunity to react to and effect the research (Wilson 2008, 35-37). This complexity calls for the methods to be diverse and for the analysis to be open to ambiguity, something a positivist methodology has difficulties facilitating.

According to Shawn Wilson (2008), even though some methodologies reject the positivist approach to research, such as critical theory and constructivism, the positivist and constructivist paradigms still share the same understanding of the relationship between ontology and epistemology, viewing *being* and *knowing* as separated. Wilson explains, "This commonality is that knowledge is something *individual* in nature. This is vastly different from the Indigenous paradigm, where knowledge is seen as belonging to the cosmos of which we are a part and where researchers are only the interpreters of this knowledge" (Wilson 2008, 38) (original emphasis). When doing research, especially in an indigenous community, it is therefore important to consider not only how ones methodology approaches the process of gaining knowledge but also what knowledge *is* and how it relates to being, to people and the world. Wilson concludes that in what he calls the indigenous worldview, "there is no one definitive reality but rather different sets of relationships that make up an Indigenous ontology. Therefore reality is not an object but a process of relationships and an Indigenous ontology is actually the equivalent of an Indigenous epistemology" (Wilson 2008, 73).

In many ways, human ecology as articulated by Kassam (2009) attempts to foster such a methodology by connecting *being* and *knowing*. According to Kassam, practical knowledge, knowing *how*, is intrinsically connected to being (Kassam 2009, 75-76). He quotes Tim Ingold (2000) for saying that, "apprehending the world is not a matter of construction but of engagement, not of building but of dwelling, not of making a view *of* the world but of taking up a view *in* it" (Kassam 2009, 70-71) (original emphasis). Thereby there is no divide between body and mind or between mind and nature. This has obvious consequences for the way in which one can approach a research project, what questions to ask and what to make of the "findings." Another way in which human ecology differs from at least a positivist worldview is through its rejection of the notion of objectivity. According to Kassam, all knowledge is tied to experience which is effected by perception and thereby intrinsically dependent on context and relations. Essentially, relationships are the basis of

knowledge. Therefore, he argues, it becomes important to seek practical knowledge when wanting to learn *how*. This type of particular knowledge can reveal large issues and say something about the universal (Kassam 2009, 72-73).

2.2.1 Community-Based Participatory Research

In order to be able to get as close to an understanding of the sustainability of Igiugig as possible, a community-based participatory approach is chosen as the methodological foundation. A community-based participatory methodology is appropriate for this research since it is inherently participatory by taking its starting point in the community in question and engaging the community members in the various steps of the research. Because this thesis aims at understanding the lives of Igiugig residents and the sustainability of their community, it is their narratives and their understanding of the matter that is at the center of the research.

Knowledge is power and people can be empowered through knowledge or disempowered by being denied access to knowledge. According to Smith (1999), “research is not an innocent or distant academic exercise but an activity that has something at stake and that occurs in a set of political and social conditions” (Smith 1999, 5). Kassam (2009) uses the idea of the connectedness between knowledge and power to show the implications of human ecological mapping in the Arctic, explaining how early maps made by European explorers were an attempt “to translate indigenous spatial frameworks to European geographical terms” (Kassam 2009, 195). Likewise it can be argued that early, and to some degree contemporary, research led by non-Native researchers with Natives as the focus of study has attempted to translate, or reduce, Native ways of life to non-Native concepts.

According to Smith (1999), this way of conducting research is a continuation of European imperialism. Referencing Edward Said (1979) and his ideas of Orientalism, Smith explains how the scholarly construction of “the Other” runs the errand of imperialism by making “statements about it [the Orient], authorizing views of it, describing it, by teaching about it, settling it, ruling over it” (Smith 1999, 2). On the contrary, community-based participatory research has the potential to offer a way for communities with little to no political or economic power to take control over information that can influence decisions about their lives (St. Denis 1992, 51). In this form of research the aim is to produce knowledge that belongs to and can be used by the people in question. According to Bopp and Bopp (1985), and as cited by St. Denis (1992), community-based participatory research

can “help create a mirror by which a community can see its own eyes, that is, its own wisdom and knowledge” (St. Denis 1992, 57). Smith (1999) argues that putting the community at the center of research changes the nature of the research since, “The community’ is regarded as being a rather different space, in a research sense, to ‘the field’. ‘Community’ conveys a much more intimate, human and self-defined space, whereas ‘field’ assumes a space ‘out there’ where people may or may not be present. What community research relies upon and validates is that the community itself makes its own definitions” (Smith 1999, 127). By conducting community-based participatory research there is a real chance of shifting the decision-making power from the “expert” to the people, who through their experiential knowledge should be considered the real experts.

The relationship between the researcher and the participants is of great concern in community-based participatory research. According to Kassam (2009), research that involves people needs to be done *by* those people or at least *with* them on as equal terms as possible (Kassam 2009, 223). Taking part in the research does not only refer just to community members being interviewed about subjects already defined by the researcher, it refers to the community members engaging in this articulation process. The process of defining the issues and determining what approach to take as well as what to do with the findings must be collaborative in nature. Describing his own research in Wainwright, Alaska, Kassam (2009) argues that community participation should allow for an “integration of the aspirations and priorities of the community at every stage” (Kassam 2009, 165). In order for the community members to be able to see how this research might affect them and how they can benefit from it the researcher has to be open about her expectations and where to she foresees the research might go. This allows for the community members to make a decision about whether or not they want to participate as well as allow them to influence the goals and processes of the research further.

2.2.2 Conducting the Research

More important than anything else is creating a relationship with the people that will take part in the research. As Kassam (2009) puts it, “Meaning is revealed through relationships” (Kassam 2009, 72). A relationship can be built in many different ways, partially depending on the personality of the researcher and the community members. In this regard it is important to know the cultural context and one of the central concerns is to develop participatory techniques that are culturally situated and appropriate. The best way

to do this is to become familiar with the community members, learn their stories and the history of their community.

As described in the introduction, I learned about Igiugig in 2009 and although I did not meet AlexAnna Salmon personally at that time, her presentation about her community had given me some ideas of the cultural and social context of Igiugig. Because of her position as the village administrator, AlexAnna was the first Igiugig resident I contacted about my research ideas. I told her about my ideas for a study and asked for her thoughts on it, as well as if and how she thought this would be possible for me to do in Igiugig. AlexAnna acted as the link between me and the Igiugig Village Council, of which she is president, and she helped me coin my research so as to make it most beneficial for the community. I wrote a letter introducing myself and explaining the research that was published in the Igiugig Newsletter in early June, 2010. I made a visit to Igiugig in mid June of 2010, where I planned to introduce myself to the people of Igiugig, present my ideas, and get a feeling of whom to interview for the research. The visit was overwhelmingly positive and several of the people I talked to offered to let me interview them during that visit. At the end of the two-week stay I had conducted twelve interviews, eleven of which were with the youth. During my visit I continually communicated with AlexAnna about my ideas and the interviews quickly took on a certain form that was inspired by what I heard and experienced.

After returning to Fairbanks I worked on transcribing the interviews and identifying follow-up questions for the next visit. I began the process of analyzing the data by identifying themes that were appearing in the interviews and relating them to the overall issues of community sustainability that had appeared through literary reviews and observations during my first visit. (See Appendix A for an example of the process of analyzing the interviews.) The Igiugig Village Council helped me set the date for a second visit and supported my idea of doing interviews with the Elders of the community. My second visit to Igiugig was in October of 2011, also for a duration of two weeks. I discussed my ideas further with AlexAnna as well as with a few of the interviewees from the first visit and followed up with additional questions in some of the interviews. During this second visit I conducted another nine interviews, three with Elders, two with youth, and four with other community members. Some of these interviews, like the one with the village accountant and the two schoolteachers, were more informative in nature than the interviews with the youth and Elders. After the second visit I transcribed the additional interviews and developed the themes further.

After passing my comprehensive exams in December of 2011 I began the process of writing the thesis. Twice during the process of writing I sent the material to AlexAnna for her to review. She helped contact interviewees whose quotes were potentially sensitive and aided with ensuring confidentiality where needed. She also acted as a proofreader for community specific information since her knowledge of the community greatly exceeds mine. After my thesis defense in July of 2012 I took a third trip to Igiugig where I presented the research in a community forum and thanked the community for their great hospitality and trust.

As becomes clear in the above description of the research process, AlexAnna Salmon has been a major source of inspiration and guidance throughout the process of writing this thesis. The amount of quotes from the interviews with her and references to conversations between her and myself is disproportionately big compared to that of the other interviewees. This is largely because I have spent more time with AlexAnna than any other Igiugig resident, because she holds a large amount of knowledge about her community due to her position as village administrator, and because she is a remarkably reflected young woman with a lot of things on her mind that she has been willing to share with me. Besides the interviews and conversations with AlexAnna, a considerable amount of information about the culture and history of Igiugig used in this thesis comes from AlexAnna's bachelor thesis, *"Igyararmiunguunga": Qallemciq Nunaka Man'i Kuicaraami-Illu. "I belong to Igiugig": The story of my home on the Kvichak River*, from 2008.

2.3 Methods

2.3.1 Choosing Interviewees

Whereas it was clear that I wanted to conduct interviews with young people living in Igiugig, just how to define "young people" or "youth" was less clear. Generally speaking, the youth category was felt by most of the community members to have an upper limit of twenty-one. The age group from twenty-one to thirty was identified as "young adults". After two visits and twenty-one interviews, the age group in focus included ages fourteen to thirty-one. Thereby this category includes both "youth" and the category identified by the community as "young adults". But, rather than years, the actual process of choosing interviewees was determined by the understanding of the youth category by people in the community. Whereas age certainly does play a role in this regard, other criteria seem to play a role as well. When I asked a group of community members to help me define the youth

category, issues such as the relationship of the young person to other residents and the extent to which the individual feels like a young person or an adult were identified. The feeling of what group one belongs to can change depending on context and the youth category is therefore not static. This is particularly the case with the young adults in the twenty-one to thirty age group. These young people are clearly assuming adult roles but they are not necessarily fully established. The youth and these young adults play a huge role in Igiugig and nurturing their transition from youth to adulthood is a critical part of the community's approach to sustainability. Despite these nuances, the young people in the fourteen to thirty-one age group will be referred to simply as "youth" in the analysis, in order to simplify the language.

Whereas the youth are the ones whose stories and interpretation of community sustainability this research aims to gain an understanding of, the voices of other community members are equally important in painting this picture as accurately as possible. To give the narratives of the youth some context and to better understand how the community has developed, interviews were also conducted with adults and Elders. These individuals were chosen based on their willingness to be interviewed as well as their position within the community as someone who holds a particular knowledge, either because of their life experiences or their jobs. Thirteen of the twenty-one interviews conducted were with youth, five were with adults, and three were with Elders.

All interviewees were presented with a statement of informed consent (see Appendix B) for them to read and sign. The two interviewees under age eighteen were asked to have their parents sign as well. The interviewees were asked if they wished to remain anonymous and no one expressed a desire to do so. Although this research asks about both strengths and weaknesses of the community and the residents, the focus is on possible solutions towards sustainability and individuals are therefore not singled out in a way that exposes their private lives. Whereas the youth category spans from ages fourteen to thirty-one and the Elder category refers to residents sixty years and older, the adult category refers to residents in between thirty-one and sixty. When an interviewee is referred to in the analysis and she or he is not part of the youth category or identified as an Elder, she or he belongs to the adult category.

2.3.2 Qualitative Interviews

The interviews were qualitative and semi-directed with open-ended questions. Based on my research interest, what I knew about Igiugig from AlexAnna Salmon, and what I knew about general issues in rural Alaska I created a rough guide to the interviews with the youth (see Appendix C). The questions were based on their experiences growing up in Igiugig (if applicable), characteristics of the community that they found stimulating or restricting, and their aspirations for the future. The themes that appeared and the statements and ideas presented in the first interviews guided the later interviews and the interviews quickly developed a certain form that was partly directed by my questions and partly by their answers. This fluidity made the interviews easy-going and enabled the youth to take the interview into whatever direction they preferred. The interviews with the Elders and the adults were guided by the themes that had emerged during the interview with the youth, such as the focus on youth and the openness to change. Additional questions were addressed to people in the area of their “expertise,” for example about the history of Igiugig or about the school.

I chose the semi-directed qualitative interview because this type of interview allows for the interviewee to be the “co-author” of the interview. Since the people of Igiugig are the ones who know their community the best, they should also be the ones who identify the main characteristics. This type of interview is compatible with the goals of community-based participatory research, since it allows for a maximum amount of collaboration and participation of the individuals in question. The interviews were conducted wherever the interviewees preferred, sometimes in their home and sometimes in an office in the hanger. The interviews were recorded and later transcribed. Before the interviewing process began, the interview guide was approved by the Institutional Review Board and the project received “exempt” status in May 2011 (IRBNet ID 238669-2).

Quotations from the interviews are used throughout the analysis. In order for the meaning conveyed through the quotations to be as clear as possible I have taken the liberty to edit some of them slightly. This includes, for instance, taking out repetitions or half sentences. This “clean-up” process has had no effect on the content of the quotations but simply helped eliminate any potential confusion and secured a certain flow in the text.

2.3.2.1 A Note on Values

As with the concept of sustainability, the concept of values is used throughout the thesis, referred to as “the values of the community” and “Yup’ik values.” Contrary to that of sustainability, however, I will not attempt to define the concept of values beforehand. Values are intrinsically tied to culture and inherently subjective in nature. Therefore I do not find it beneficial for me to identify what the values of Igiugig are, and what they are not, and thereby impose limits to our understanding of the community culture and values. Rather, through the narratives of the youth and the other Igiugig residents the reader will get a sense of what these values are and what the concept of “Yup’ik values” is taken to mean in this particular community context in this place in time. Issues of culture and values will be discussed further in chapter 6 Discussion and Conclusions.

3. Ethnohistorical Overview of Southwest Alaska

Whereas this thesis focuses on the present and future of the village of Igiugig, looking back in time is essential for understanding contemporary issues. James VanStone (1967) did an excellent and comprehensive study of the ethnohistory of southwest Alaska and argues that historical studies should be the foundation of any study of present-day people and communities. “Since modern Eskimo culture represents the current end point in the history of culture change, it [has] been realized that this culture, as studied at the present time, is meaningful only in terms of what can be learned about the earlier periods of the cultural continuum” (VanStone 1967, 158). This chapter asks about the history of southwest Alaska in an anthropological perspective with a specific focus on the Yup’ik people inhabiting parts of this region, predominantly the Kiatagmiut and Aglurmiut Yup’ik. The chapter starts with an investigation of the Yup’ik ways of life before 1818 and continues to discuss some of the major changes brought to Yup’ik culture and social organization through the influences of both Russian and U.S. occupancy from 1818 onwards.

Besides classical anthropological and archeological studies conducted by people outside the Native communities, the anthropological material used in this chapter consists of oral sources. Some of the narratives used are from the journals of Russian and American missionaries and explorers during the early years of contact. To a larger extent, however, the oral sources used are from interviews conducted by Igiugig resident AlexAnna Salmon for her 2008 thesis on changes in land use and ownership as well as interviews conducted during my visits to Igiugig in 2011.

3.1 Southwestern Yup’ik Culture Before 1818

By 1818, when the Russians made their first significant presence in southwest Alaska, this region was occupied by four groups of Yup’ik (Kusquqvagmiut, Togiagmiut, Kiatagmiut and Aglurmiut), the Dena’ina Athabascans, and the Alutiiq (Branson and Troll 2005, xii). The Yup’ik and Alutiiq share linguistic and cultural commonalities and in southwest Alaska it is not completely clear where traditional Athabascan, Yup’ik and Alutiiq lands start and stop (VanStone 1967, xxi). However, roughly defined the Yup’ik occupy the river systems of the Togiak, Nushagak, Naknek and Kvichak Rivers. The Athabascans occupy the Iliamna Lake region and the upper reaches of the Kuskokwim, and the Alutiiq occupy the Alaska Peninsula and other nearby areas (Alaska Native Language Archive 2011). As described in the introduction chapter of the thesis, the village of Igiugig is situated in the

crux of Yup'ik, Alutiiq, and Athabascan country. The people inhabiting this area today have ancestry that connects them to all of these cultural groups but most people consider themselves to be Yupiit (plural for Yup'ik) and Yugtun is the language spoken by the Elders and by some non-Elders (Salmon 2008, 29). Because of the emphasis within the community of Igiugig on the Yup'ik side of their ancestry, this cultural group will be the main focus of this chapter.



Figure 3.1: Cultural borders in southwest Alaska at the time of contact (roughly 1818) (Source: Dumond 2005, 61)

The Yupiit are considered to be one of the most diverse Native cultures in Alaska because of the many different territories they occupy. According to recorded ethnohistory as well as archeology, the Yupiit had⁵ a great adaptive ability, developing new skills and customs while “abandoning” others when moving into a new area with different resources available (VanStone 1967, xxiii). The Yupiit were also highly mobile and would leave an area when resources were scarce or conflicts with other groups made it necessary to do so. Several accounts refer to the settlement of Yup'ik people on Lake Iliamna and along the Kvichak River. Igiugig Elder, Mary Gregory-Olympic, explains how the Yup'ik people from up

⁵ Even though some of the characteristics described in this chapter might still be applicable to contemporary Yup'ik culture, they are all described in past tense so as to maintain the grammatical flow.

north in the Kuskokwim region were starving and moved south in search of game. When they reached the Iliamna Lake area they fought the Athabascans for the land, and after having pushed out this group many of the Yup'ik people ended up settling down in the area (Salmon 2008, 34-35). Other accounts link this move to a series of wars, the so-called "Bow-and-Arrow Wars," in the Kuskokwim region between the Kusquvagmiut and the Aglurmiut Yup'ik. The "Bow-and-Arrow Wars" resulted in the Aglurmiut Yup'ik fleeing the area (Dumond and VanStone 2005, 47).

The Yupiit were not only mobile in times of need, but centered their entire lives on this mobility, moving around according to the seasons and the availability of food. Besides their winter residencies, which they occupied from fall till early spring, the Yupiit moved around on the land, staying for short amounts of time in a wide variety of locations, of which the fish camp was a very important one. The subsistence activities were at the center of life led by the Yupiit, not only due to their vital importance for food but also due to their strong cultural qualities (Kawagley 1995, 12-13; Fienup-Riordan 1994, 29, 257; 1984, 9-10; VanStone 1967, 122-132 *passim*). The high degree of mobility does not mean that the Yupiit were not connected to place. Quite on the contrary, the sense of belonging to the land was very strong and was reinforced through the naming of places. According to Collignon (2006), "what is important to [the Yup'iit] is not so much to have a place of their own but to have at their disposal a whole set of various places, with very different qualities, all connected together through the shared experiences of the various members of the community" (Collignon 2006, 204).

The sharing of stories about the land and the use of the land was one way to create a sense of belonging among members of the group or settlement. The notion of homelands did not only refer to lands of direct relation but also the lands related to and traveled by one's ancestors (Fienup-Riordan 1990, 172). This connection to the land is still an important characteristic in Yup'ik culture. One example of this in relation to Igiugig is the stories shared by Igiugig Elder Mary Gregory-Olympic about her upbringing on Kukaklek Lake, southeast of present-day Igiugig. Although Mary has lived in Igiugig for the majority of her life, Kukaklek Lake is part of Mary's homeland (Salmon 2008, 93-96) and she still refers to the place as her "real home" (Mary Gregory-Olympic 2011, 2:05). The village has made excursions to the area for the younger generations to learn about the life of their Elders and consequentially their own past.

Contrary to other Native groups such as some of the Indian groups in the Lower-48, the Yup'ik group identity was not determined by the ties to a tribe due to the lack of tribal organization (VanStone 1967, xxi). Rather, what determined group identity were social relations such as language dialect, sharing of resource base, marriage, and political alliances. It was normal for a region to consist of one or more settlements linked together through kinship (Fienup-Riordan 1990, 148). Social cohesion was maintained through the deliberate creation of connections between people, for instance through marriage, choosing godparents, and the act of naming newborns. Especially the act of naming was important. A newborn child would receive the name of a deceased relative and it was believed that the spirit of the deceased would live on in the newborn (Kawagley 1995, 18-23 *passim*). This created a strong bond between the newborn and all the other relatives of the deceased, as well as linked the newborn directly to his or her ancestry and culture (Fienup-Riordan 1990, 54). The tradition of naming continues in most of the Yup'ik communities today and is considered to be an important part of passing on the Yup'ik culture (Salmon 2008, 51).

Like many other Alaska Native cultures, the Yupiit saw the world in a holistic way with no definitive beginning or end (Kawagley 1995, 22-23), of which the concept of naming is an example. Everything was believed to be in possession of a soul, a *yua*, and who possessed what soul would change without any differentiation between humans and non-humans. When a person or animal died it was believed that the soul left the body and traveled underground to wait until it could possess another being. This meant that everything had awareness and therefore that everything in the world should be treated with respect (Fienup-Riordan 1994, 48-51). In traditional Yup'ik culture it was a collective responsibility to maintain order by following the rules explained by the Elders, the so-called "Native Laws" (Salmon 2008, 51-54). For instance, the success of a hunter did not only rely on his ability to hunt and follow the rules of respectful hunting but also the ability of his wife, children, and even extended family to follow other cultural or social norms and rules. In this way, the survival and development of a settlement was considered to be dependent on every member of the settlement (Fienup-Riordan 1994, 58-59). Showing one's respect to the animal that had given its life to the hunter, fisher, or trapper included sharing it with other people in the community, especially the Elders (Fienup-Riordan 1994, 184-186), and a young person's first catch was to be given away completely (Salmon 2008, 55).

Although the communities chose a respected male to be their community leader, the authority was not traditionally only held by one person. Rather, big decisions were dealt

with by a handful of people from the community and different people were considered to be leaders on different matters (Fienup-Riordan 1990, 201). This further shows the emphasis on the communal aspect of life in Yup'ik culture. The ceremonial life of the Yupiit of southwest Alaska was very rich and the role of the shamans was substantial, since they facilitated the relation to the supernatural. Also, masks and other ceremonial objects were used at many occasions during the year, especially during the ceremonial season, the *cauyak*, which also means "drum", from late fall through early winter when many festivities were held (Oswalt 1990, 36). Ceremonies and festivals included the Bladder festival (*Nakaciuq*), the Great Feast for the Dead (*Elriq*), and the Messenger Feast (*Kevgiq*) (Fienup-Riordan 1990, 89-90).

3.2 The Russian Period (ca. 1818-1867)

Although the Russians claimed sovereignty over all of Alaska in 1741, the Bristol Bay area and the southwest interior remained relatively unexplored until 1818 when L. A. Hagemester, director of the Russian American Company, sent an expedition to the area under the command of Petr Korsakovskiy. The expedition went up Cook Inlet to Lake Iliamna and continued down the Kvichak River to Bristol Bay (Selkregg 2005, 5). The Russians were mainly interested in Alaska due to the lucrative prospects of fur trading. Bristol Bay had a high beaver population (Unrau 1994, 56) and in 1818 the Russian-American Company sent Fedor Kolmakov to set up the Alexandrovski Redoubt trading post at the mouth of the Nushagak River, hoping to include this part of Alaska in the fur trade (Selkregg 2005, 5).

According to Wendell Oswalt (1990), one of the reasons for "successful penetration of the area by Westerners" (Oswalt 1990, 38-39), was the fact that the Yup'iit already trapped for the fur bearing animals the Russians sought as well as the fact that they had a trade network between the coastal and interior settlements (Oswalt 1990, 38-39). However, although the Yup'ik trappers were trapping beaver at the time of contact, the way in which the animals were trapped and hunted, how many a trapper and hunter would take, and the purpose of trapping and hunting changed with the influence of the Russian fur trade. The Russians introduced new trapping and hunting methods and encouraged the Yup'ik trappers to take as many animals as possible, leading to depletion of beaver in some areas, mainly around Nushagak. As was customary in all of the Russian trading posts throughout Alaska, the trading post at Nushagak encouraged the Native trappers and hunters to become indebted to the company so as to make sure that they would still trap and hunt for them

rather than do other subsistence activities (Dumond and VanStone 2005, 51). Sources from the Russian-American Company seem to indicate that the Yupiit were less affected by the Russian fur trade than were some of the other cultural groups in the region, such as the Aleuts and Alutiiq (Unrau 1994, 45).

Yupiit as well as Alutiiq came to Nushagak Bay to trade at Alexandrovski Redoubt and this not only affected their relations to the Russians but also to one another (VanStone 1967, 119). Some sources point to the Russians as mediators between warring groups of Natives (Dumond and VanStone 2005, 49). Acting as a major economic center for the region, the trading post also had a great impact on settlement patterns. In Nushagak Bay there were four major settlements at the time of contact. After the establishment of Alexandrovski Redoubt all of these settlements grew with the influx of people from the interior regions as well as the Alaska Peninsula. The total number of Eskimos living in the bay area at this time was estimated to be 1,260. This most likely includes seasonal migrants (VanStone 1967, 115-116).

Opening up southwest Alaska to fur trade also opened it up to Russian Orthodox missionaries, and according to VanStone, "no innovation among the Eskimos of the Nushagak River region has had a greater or more lasting effect than Christianity" (VanStone 1967, 21). Although there had been missionary activities in the area since 1832 (VanStone 1967, 22-25), a mission was first officially established at the Alexandrovski Redoubt in 1842 by Bishop Innocent (Unrau 1994, 66). According to church records and diaries of priests and clergymen in the area, the Yupiit in southwest Alaska were very open to the Russian Orthodox faith. Records tell of some Natives burning their ceremonial masks as a proof of their devotion to the Christian faith and many Natives traveled from other villages to the Nushagak mission as well as requested that a priest come up to their villages (VanStone 1967, 25-28). From the establishment of the trading post until 1848 1,080 Natives, mainly Aglurmiut Yup'ik, were baptized or at least brought into the Christian faith. By 1864 all Yupiit in the villages visited by the church had been baptized (Dumond and VanStone 2005, 51).

The reasons for the success of the Russian Orthodox Church were likely different for different areas of southwest Alaska. However, VanStone (1967) points to the general willingness of the church to be flexible in its rules when it came to the Natives as part of the reason for its success in the area (Vanstone 1967, 33). The orthodox priests emphasized bilingual education and under the lead of Father Veniaminov the church went to great

length to increase literacy among the Yupiit, Tlingit, and especially the Aleuts (Dauenhauer 1997, 6-9). According to Richard Dauenhauer (1997) “the [Russian Orthodox] Church sought to instill a sense of pride in the Native language and foster popular literacy in it” (Dauenhauer 1997, 9). This, he argues, stands in stark contrast to the efforts of the U.S. Department of Education under the lead of Sheldon Jackson. Whereas the Russian Orthodox Church argued that, “one does not have to abandon or change his or her culture or language to become Christian” (Dauenhauer 1997, 12), the Presbyterian Church, “insisted on a link between Christianity and American language and culture” (Dauenhauer 1997, 12). In contrast to the Presbyterian Church, the Orthodox Church also allowed for priests to have wives and many married Native women (Fienup-Rirodan 1994, 30).

Another possible aspect of Russian Orthodox success is the effect of disease. Since the time of contact, the Natives in southwest Alaska suffered from diseases introduced by the Russians. The 1838-1839-smallpox epidemic infected and killed several hundred people in the Kuskowim and Nushagak river regions. Although only some years were considered epidemic years, the Natives were hit by diseases every year, despite the attempt to vaccinate them (VanStone 1967, 99-100). Michele Morseth (2003) argues, that the devastating consequences of the epidemics during those years made people more inclined to let go of old spiritual beliefs and customs. “Where populations were decimated, the epidemic left a demoralized people who had witnessed the failure of traditional healers’ shamanic powers to heal and maintain the natural balance of life. They were forced to question and confront their beliefs in traditional powers held by shamans, healers, Elders, and the lifeway that was quickly disappearing” (Morseth 2003, 44-45).

Furthermore, there were several similarities in customs between the Orthodox Church and the Yup’ik culture, such as singing and gift distribution, which allowed for a merging of the spiritual beliefs of traditional Yup’ik culture and the institutionalized religion of the Russian Orthodox Church. This religion has had a lasting impact on the Yup’ik culture and is still an important part of village life in southwest Alaska. Clear signs of its influence are visible in both language and customs. One example of the merging of these belief systems is the tradition of Russian Christmas, or *Slaviq* (Salmon 2008, 69-70). However, despite the lasting effects of the Russians on the lives of people in many of the communities in southwest Alaska today, these are dwarfed by the changes that followed the sale of Alaska to the United States in 1867.

3.3 The Early American Period (ca. 1867-1950s)

Russia sold Alaska to the United States due to declining profits from the fur trade and geopolitical considerations (Selkregg 2005, 5). However, the fur trade continued under the supervision of Hutchison, Kohl and Company of San Francisco. They bought the assets of the Russian-American Company and reorganized as the Alaska Commercial Company (VanStone 1967, 57-58). In the coastal areas, such as Cook Inlet and as far as into Lake Iliamna, the fur trade was pushed to its fullest capacity and a few larger trading posts were established instead of the many smaller ones, further centralizing the Native people living there (Unrau 1994, 76-79). Approaching the nineteenth century, the fur trade in southwest Alaska had almost ceased to exist due to overharvest.

Another great effect on settlement patterns in the early U.S. period was the continuous epidemics brought to Native communities by outsiders. During the age of U.S. fur trade and the early years of commercial fishing the region was further explored, mainly from the 1880s till 1935, and the number of outsiders that settled in the area increased (Selkregg 2005, 6-7). In 1918 an influenza epidemic, the so-called "Spanish Flu", reached Bristol Bay and despite attempts to isolate the villages from one another it spread to most all communities in southwest Alaska with devastating effects. Many children were orphaned in the Bristol Bay area and many people living in this area today can trace their ancestry to the orphanage at Kanakanak (Williams, Robinson and Bell 2005, 129-132).

The decline of the fur trade did not make the United States less interested in Alaska, however, due to another resource "discovery": the sockeye salmon of Bristol Bay. Although the U.S. had known of this resource for several decades, it was not until the establishment of the Nushagak cannery in 1884 by the San Francisco-based firm Arctic Packing Company that the commercial fishery took off in Bristol Bay (Unrau 1994, 142-144). The canneries mainly employed white fishermen from the United States and Chinese cannery workers. One of the reasons given for the lack of Native employment was that the Natives had no formal training and also were less reliable since they had less of a "work ethic," staying away from work when they saw fit (VanStone 1967, 74-77).

Besides failing to employ local people from the area, the canneries caused severe depletion of the salmon on which the Natives depended, greatly decreasing their ability to maintain their complete domestic economy, and in some cases leading to starvation. One reason for the depletion of the salmon was the use of fish traps that allowed close to no fish

to escape up river. In 1889 this fishing method was prohibited both due to its devastating effects on the fish stock and due to the unfair competition with Native subsistence fishers (Unrau 1994, 45). In 1911 there were twenty-one canneries in operation in Bristol Bay that together produced 743,206 cases of packed salmon, which added up to more than \$4.5 million. However, the intensive fishing, which was encouraged by the high prices of salmon caused by the First World War, led to “the most complete failure in the history of Bristol Bay” (Unrau 1994, 157) in 1919, most likely due to overfishing. The fear of overfishing led to a series of restrictions on the commercial fishery in Alaska (Unrau 1994, 157).

The new century also marked a change in the cannery employment, although the change came about slowly. By 1903 the Iron Chink was put in use to cut, clean, and slice the fish, nearly ending the demand for Chinese labor and reducing the cannery workforce by three-quarters (VanStone 1967, 77-78). Despite small increases in Native employment in the fishery, only 194 Natives were employed as cannery workers out of a total workforce of 4,328 in 1937. It was not until the Second World War, when canneries were forced to use local labor due to the lack of outside labor, that Natives were fully incorporated into the commercial fishery. Furthermore, the use of aircraft and building of airfields made it possible for Natives in more distant villages to be transported to and from the canneries. Introducing planes as a mode of transportation greatly changed the employment opportunities for Natives in southwest Alaska as well as in other parts of the state, allowing for interior villagers to engage in the Bristol Bay fishery without having to move permanently to the coastal villages. By the late 1940s all-Native cannery crews became common practice in Bristol Bay (VanStone 1967, 78-80) and in 1947 the first Native union was established (King 1990, 44-45).

Besides introducing the Natives to the wage economy, another significant consequence of the commercial fishing industry was the increased face-to-face interactions between Natives and non-Natives of various nationalities. This greatly impacted the Natives on various levels and contributed to the ongoing acculturation process that had begun a century earlier (VanStone 1967, 82). The commercial salmon industry attracted Native hunters and their families towards the canneries that had in many ways become economic hubs. Instead of occupying several semi-permanent sites, many families chose summer settlements near a cannery and made it their permanent home, establishing year-round villages (Morseth 2003, 53). Since its beginning in the late 1800s, commercial fishing has

been the most important occupation in Bristol Bay and, as articulated by VanStone (1967), red salmon was and is the lifeblood of the region (VanStone 1967, 63).

Another form of occupation introduced by the United States was reindeer herding. Although not nearly as influential as commercial fishing to life in southwest Alaska, during the years of the Reindeer Program reindeer herding was the main occupation of a number of people, some of who later settled down in the village of Igiugig. Domesticated reindeer were first introduced in Alaska on the Seward Peninsula in the 1890s by the Presbyterian missionary and General Agent for Education in Alaska, Sheldon Jackson. Concerned with the wellbeing and “civilizing” of Alaska Natives, Jackson saw reindeer herding as a possible economic opportunity for the Natives on the Seward Peninsula and transported both reindeer and herders there from Chukotka (Unrau 1994, 309-312). With the involvement of the U.S. government the number of herds grew in the early years of the new century and by 1905 the number of reindeer in Alaska had grown to more than 10,000. In 1904 the Norwegian Saami, Hedley Redmeyer, established the first reindeer station in the Lake Iliamna area at Kokhanok. The herd nearly doubled within the first year and ranged in the area south of Kokhanok around Big Mountain and Kukaklek Lake. The reindeer program was set up to educate Natives through an apprenticeship and prepare them to take over herds of their own. In 1920 there were around 6,000 reindeer in the Bristol Bay area and by 1923 the number had increased to 14,000. In 1924 there were six Native-owned reindeer herds in the Bristol Bay area (Unrau 1994, 313-316).

Igiugig Elder Mary Gregory-Olympic grew up reindeer herding at Kukaklek Lake. Her father, Alexi Gregory, acquired his herd around 1910, most likely from the Kokhanok Reindeer Station. The Gregory family, counting Alexi, his wife Marsha, and their seven children, moved to Kukaklek Lake and established a winter settlement called Reindeer Village (Mary Olympic 1995, Tape H95-33-1, Section 1, Project Jukebox). In the thirty-seven years the Gregory family maintained the herd around Kukaklek, three families stayed for some time at Reindeer Village to help with the reindeer and the forty some sled dogs. Alexi would also hire help from the surrounding villages during the winter months when he was busy with trapping. Reindeer herding provided the family with meat and hides for clothing (Salmon 2008, 98-101).

Although centered on herding, the lifestyle of the Gregory family was very similar to the lifestyle of the pre-contact Yupiit (VanStone 1967). In the early summer the family moved with the reindeer to summer fish camp where they stayed in a “mudhouse” until the

snow melted when they set up canvas tents on the shore of the lake and began fishing. Over the course of the summer they would set up around 2,000 sockeye salmon; dry them, smoke them, and store them for the winter. Alexi and the boys took care of the reindeer and let them graze along the hillsides. In mid-September it would be time to leave for fall fish camp. The fish would be stored in the cache for later pickup and the reindeer would be gathered and herded to fall fish camp, ten miles southeast of summer fish camp (Salmon 2008, 98-101). During the month they spent at fall fish camp they would catch 100 redbfish, which they would air-dry. Waiting for the fish to dry Marsha would spend the day trapping for ground squirrels to make parkas and other clothing while Alexi would spend this time hunting for brown bear. The skin of the bear was used to make a boat, an *anyaq*, which could transport gear from fall fish camp to winter camp. After the gear had been transported, Alexi returned to fall fish camp to herd the reindeer to winter camp as well.

Winter camp was the main settlement of the family and they stayed here for eight months of the year. Before the snow fell, Marsha would pick berries and Alexi would gather wood for the winter to heat both the camp and the steam bath. Alexi spent all the winter months trapping for fox, otter, mink, wolf, wolverine, lynx, and beaver. He had three “mudhouses” around the lake that he stayed in while trapping. The hides would be brought to the Igiugig Trading Post and traded for food and money. Alexi would also travel to other villages, such as Iliamna, to buy supplies when the family ran out of dry goods, such as sugar and flour. Although the family had acquired many of the luxuries brought by the Westerners, such as dry goods, glass windows, and a wind-charged radio, they lived more or less isolated from outside influence (Salmon 2008, 102-105).

From 1936-38 the decreasing prices due to the Great Depression and problems with predators, sickness, and overgrazing contributed to the demise of the reindeer-herding program. Furthermore, the high wages in the Bristol Bay fisheries made it more attractive for people to go fishing than stay in the interior herding (Unrau 1994, 314-316). The nomadic lifestyle needed for good herding became increasingly at odds with the more settled lifestyles of the Yup'ik population in the area. Furthermore, despite the aim to provide the Yupiit with a steady income, the herds had become increasingly concentrated in the hands of non-Natives (VanStone 1967, 86-88). The Reindeer Act was passed in 1937 in an effort to prevent this development by prohibiting non-Natives from owning reindeer herds (Olsen 1969, 5). The effect of this effort in southwest Alaska is not clear. Despite the decline in reindeer herders in southwest Alaska, the Gregory family remained herding at

Kukaklek Lake up until 1947, making their herd one of the last to disappear. In the 1940s Alexi continued reindeer herding while spending the fishing season down at Naknek with his older boys, fishing for Red Salmon Cannery. During these years Mary spent the summers taking care of the reindeer with her parents' adopted daughter, Annie Eknaty-Zackar. In 1947, however, Mary's younger brother died and the family decided to release the twenty remaining reindeer and move away from Kukaklek. They lived in several places along the Kvichak River before finally settling in Igiugig (Mary Olympic, 1995, Tape H95-33-1, Section 13, Project Jukebox). While some scholars have noted that the introduction of reindeer herding caused a shift away from hunting towards the stewardship relation between herder and reindeer, it is worth noting that the skills needed to engage with the land and the animals were basic skills that were part of the life-ways before herding.

Whereas both commercial fishing and herding were relatively compatible with a traditional Yup'ik way of life, the introduction of formal and obligatory education in Alaska effectively made the patterns of moving in rhythm with the seasons to harvest country foods impossible. In 1903 Congress authorized funds to be used for the building and running of schools in rural Alaska. Twenty-six school buildings were to be built initially, one of which was in Old Iliamna in 1908. The school opened with an initial twenty-seven students enrolled and twelve attending (Unrau 1994, 317-319). The Old Iliamna school continued until 1932. By then two new schools had opened in the Iliamna Lake area: one in Old Nondalton and one in Newhalen with around twenty-five students each (Unrau 1994, 329). Also in 1932, a Bureau of Indian Affairs (BIA) school was built in Ekwok. The BIA was slower to build schools in New Koliganek, New Stuyahok, and Portage Creek, probably due to the fluctuating population in those communities. In response to their request for a school, the people at New Stuyahok were told that they had to become more settled in order for the BIA to build a school there. Establishing schools helped create incentive for people to settle in more permanent villages (VanStone 1967, 98-99). The Igiugig School, however, was not established until 1967.

The influences of Russian and American occupancy brought about many changes in southwest Alaska. The changes are largely visible in the overall changes in settlement patterns, with an increased consolidation of people into permanent villages. Changes in culture, such as language, traditions, religious beliefs, and interpersonal relations also clearly result from these influences. The next chapter deals with the coming of the community of Igiugig, from pre-contact until the present day.

4. Igiugig Today

4.1 Coming of the Community

Several decades before Igiugig became a village, the settlement was utilized seasonally by people in the area. Close to where present day Igiugig is located was the village of *Qinuyang*, Old Igiugig. This old settlement was devastated by the 1919 influenza epidemic and the survivors fled to nearby villages. At that time future Igiugig residents occupied fish camps and family settlements that were scattered along the shore of Lake Iliamna and the Kvichak River. In 1922 a trading post was built on the other side of the river from where Igiugig is located today. This was the trading post at which Alexi Gregory would trade his furs when he and his family were living at Kukaklek Lake. The trading post was managed by two Norwegians and provided small-scale job opportunities for the youth living across the river. Mary Gregory-Olympic remembers helping manager Ellen Mack hang up fish and getting paid \$5 for it; her first money (Salmon 2008, 118-119). Five families lived in Igiugig on a semi-permanent basis by the time Mary Gregory-Olympic moved there with her family in 1947 (Mary Gregory-Olympic, 2011). These families also occupied summer camps and winter trapping camps along the neighboring rivers and creeks (Salmon 2008, 118). In contrast to the relative late establishment of the village of Igiugig, the neighboring village of Kokhanok can be traced back to 1890 through the U.S. Census of that year (Orth 1971, 487). In the context of settlement patterns of Native peoples at that time, the inhabitants of Igiugig appear to have been especially mobile.

The families living in Igiugig advocated for a school to be built there, but they were not successful until twenty years later, in 1967 (Mary Gregory-Olympic, 2011). The state ran the Igiugig School until 1976 when the Lake and Peninsula School District took over. Today the Lake and Pen School District still runs the Igiugig school as well as the majority of schools in the Lake and Peninsula Borough (Barnhardt 1980, 13). The establishment of the Igiugig School was a strong settling force. Before 1967 the children living in Igiugig would stay with relatives in the bigger neighboring villages, such as Kokhanok, Levelock or Dillingham, to attend school (Salmon 2008, 118). A school was established in Dillingham in 1921, making it one of the first schools in the region. Levelock got a school in 1939 and Kokhanok School was established in 1957 (Barnhardt 1980, 17, 16, 7). Although it was exciting to meet other young people and see other villages, most children were homesick and most parents unhappy to see their children gone for such long periods. Igiugig resident,

Julie Salmon, was sent to an Anchorage hospital at the age of six after having broken her leg sledding during her schooling in Kokhanok. At the hospital she caught tuberculosis and had to stay in Anchorage for six months. She thinks that her prolonged stay away from home made her lose her ability to speak Yup'ik and made her be out of touch with life back home (Julie Salmon 2011).

When the school was built in Igiugig, the children no longer had to move away in order to attend school and some families from other smaller villages without a school came to Igiugig to settle down and have their children attend school. Dallia Gregory-Andrew, an Igiugig Elder, moved back to Igiugig from Branch River with her husband, Mike, and their three boys largely because of the school. After the school was built Igiugig grew and became more of a community than a settlement. According to AlexAnna Salmon (2008), "centralized education was the strongest settling force" (Salmon 2008, 119) in Igiugig. Although the villagers were happy to finally get a school, the decreased mobility did not please everyone. Mary Gregory-Olympic explains it this way, "I'm still wanna go back to Kukaklek, especially fall and spring we move, we used to move around in spring and fall, never stay in one place. (...) Now I stuck in Igiugig for good!" (Mary Gregory-Olympic 2011, 1:06) By the time the school was built, Igiugig already had a handful of other facilities, such as a landing strip, a Russian Orthodox Church, and a post office. The landing strip was one of the first to be built in southwest Alaska (Aspelund and Seybert 1983, 219) and the post office was opened in 1937 (Couch 1957, 47).

Another force that helped establish the present-day village of Igiugig was the commercial fishing industry in Bristol Bay. Like Alexi Gregory had done in the 1940s while living at Kukaklek Lake, most men living in Igiugig in the 1950s and 1960s went down to Bristol Bay in the fishing season. The income that fishing provided was in many cases enough to support the new lifestyle of permanent settlement that many people led at this time. Igiugig was a fishing community and besides subsistence fishing along the shores of the Kvichak River and Lake Iliamna most families also owned driftnet or set net permits for fishing commercially down in the bay. The short fishing season allowed for a continuation of other activities equally important for the domestic economy of a family, such as hunting and trapping. Whereas the commercial fishery did not necessarily actively push for more permanent settlements, it facilitated this change by providing income to people. Earning wages made it less necessary for people to move around for the resources, such as they had done for generations before. Besides trapping, commercial fishing was the first real market

economy for rural Natives to engage in and it made it possible to purchase goods that were not previously possible for a family to acquire (Salmon 2008, 120-121).

4.1.2 The Alaska Native Claims Settlement Act

Despite these settling forces, what ultimately changed the settlement patterns, lifestyle, and relationship to the land of the people of Igiugig, as well as many other rural communities, was the Alaska Native Claims Settlement Act (ANCSA) of 1971. ANCSA was designed to settle the issue of land ownership in Alaska in a way that accommodated the various interest groups, Alaska Natives being the group of main concern in this context. The Alaska Native Allotment Act of 1906 (Case and Voluck 2002, 105-106) and the Alaskan version of the Indian Reorganization Act of 1936 (Case and Voluck 2002, 83-85) had already dealt with the question of land ownership to some degree. With the Alaska Native Allotment Act, Alaska Natives who were head of household or older than twenty-one years of age were entitled to select 160 acres of “inalienable and nontaxable” land, provided that they could prove use and occupancy⁶ (Case and Voluck 115-116). Due to the lack of a tribal structure in Alaska Native cultures, the Alaska Reorganization Act allowed villages to organize into tribal governments provided that they had “a common bond of occupation, or association, or residence within a well-defined neighborhood, community, or rural district” (Case and Voluck 2002, 11).

Whereas these acts established individual land ownership and recognized tribal governments, the issue of communal land ownership had not been settled. Due to the vastness of Alaska, the need to settle the issue of communal land had not been pressing during the first years of statehood. However, the lack of clear legally defined land ownership became an issue with the discovery of the Prudhoe Bay oilfield and the plans to construct an 800-mile pipeline across Alaska, from the North Slope to Valdez (Case and Voluck 2002, 157). In the early 1960s other proposed development and research projects as well as conflicts regarding land use triggered a considerable social movement among Alaska Natives, leading to the establishment of the first regional Native organization, *Inupiat Paitot*

⁶ How to “prove” use and occupancy has been, and is to this day, a point of great legal debate in Alaska. The Bureau of Land Management, for instance, initially rejected hunting and fishing activities as proof of use and occupancy (Arnold 1976).

(the People's Heritage) in 1961 and the newspaper *Tundra Times* in 1962⁷ (Arnold 1976, 96-99). To ensure that the rights of Alaska Natives were considered in the land settlement process, the Alaska Federation of Natives (AFN) was established in 1966 as the first state wide Native organization. AFN recommended a "land freeze" on federal lands until the Native claims had been resolved (Arnold 1976, 112-114). Later that year, the Secretary of the Interior, Stewart Udall, followed through on this recommendation (Arnold 1976, 117-120). Legislation was introduced in 1968 aimed at resolving the Native land claims swiftly so that construction on the North Slope could begin. The final settlement of 1971 was a result of several years of intense debate among Alaska Natives, the general Alaskan public, and the state and federal governments. As then-President of the Alaska Native Foundation, Emil Notti, wrote a few years later, "Like any compromise, it made no one entirely happy" (Arnold 1976, v). ANCSA extinguished the aboriginal claim that Alaska Natives historically held to some 365 million acres of land. Instead, fee simple title to roughly forty-five million acres of land was transferred to thirteen regional and 200 village corporations⁸ that were established for this purpose (Case and Voluck 2002, 157-158). The corporation structure was chosen since, as AFN put it, "In the white man's society, we need white man's tools" (Arnold 1976, 153). The State of Alaska received ownership of 103 million acres and the federal government received the remaining 217 million acres (Case and Voluck 2002, 157-158).

As further compensation for the extinguishment of aboriginal title, the state and federal government established the Alaska Native Fund where \$962.5 million were divided among the thirteen regional corporations based on the number of shareholders in each corporation. The roughly 80,000 Alaska Natives alive at the time of the passing of ANCSA all received one hundred shares in their respective regional and village corporations and thereby became the owners of the corporations and thereby also the legal owners of the land (Case and Voluck 2002, 159-160). Alaska Natives born after the passing of ANCSA are not entitled to shares and the only way for those individuals to receive shares is by inheritance. Twenty-two million of the forty-five million acres were set aside for the village

⁷ The first Native Organization in Alaska, the Alaska Native Brotherhood, however, was already established in 1912. The main aim of the organization was for all Alaska Natives to gain citizenship (Arnold 1976).

⁸ Originally there were 204 village corporations established but by 1998 the merging of some village corporations had reduced this number to 173 (Case & Voluck 2002).

corporations, but the subsurface rights to most village lands remained with the regional corporations. Any development of subsurface resources, however, has to be approved by the village corporations in question (Case and Voluck, 2002, 161-163). Fifty percent of the money given to the regional corporations was required to be redistributed to the village corporations within each region. The allocation of both land and money relied almost exclusively on the number of shareholders in a corporation, i.e. the number of Alaska Natives that had enrolled themselves in a certain community in the 1970 census (Case and Voluck 2002, 165-166).

Although it was possible to establish Tribal Governments with the passing of the Alaska Reorganization Act in 1936, the Igiugig Village Council (IVC) was not established until the 1960s when the village had enough people living there to be considered a tribe. At that time, membership of the Igiugig Tribe was granted to anyone who lived in and identified with the village (Salmon 2008, 121). When it was time to declare which corporation to belong to in 1971, the people of Igiugig formed Igiugig Native Corporation (INC) instead of going together with other villages in the area, which was common for many villages. The people of Igiugig chose to form their own corporation because they wanted to decide for themselves what happened to their land and their village. Igiugig Elder, Mike Andrew Sr. explains it this way, "They try to let us go merger, but we don't wanna, we have our own, we stay that way (laugh). We do it our own way. It is good" (Salmon 2008, 122). Based on the population of Igiugig according to the 1970 census, INC was entitled to 66,000 acres. However, it was difficult for the board members of INC to correctly follow all of the rules imposed on them by the federal and state governments since they were not well versed in the English language or the corporate structure. In 1979, a few years after the passage of ANCSA, INC almost lost their land-base because they failed to file corporate income tax (Salmon 2008, 117-118). Community members hired a lawyer and went to Anchorage to petition their loss and after explaining their position, INC regained control over its lands. Since then, INC has learned to "play by the rules," and in 1998 a written constitution was adopted (Salmon 2008, 121-124).

INC was not the only village corporation for whom managing a corporation was a challenge. In 1987, sixteen years after the passing of ANCSA, the U.S. House Committee on Interior and Insular Affairs concluded that only "a few of the regional corporations could be viewed as successful, but most were only moderately so and a few were then in bankruptcy. The village corporations were in worse condition, generally having 'failed to meet economic

social and cultural needs of the Alaska Natives” (Case and Voluck 2002, 168-169). Most corporations spent more time and money understanding and complying with the rules of ANCSA than they did improving the lives of their shareholders. According to then-president of the Alaska Federation of Natives, Janie Leask, the administrative burden of implementing ANCSA was so overwhelming for regional and village corporation that the implementation had become an end in itself instead of a means to invest in business and human-resource development (Case and Voluck 2002, 169).

Along with the extinguishment of aboriginal title, ANCSA had also extinguished the subsistence claims by Alaska Natives to lands outside their corporate land selections. Congress expected the State of Alaska to “take any action necessary to protect the subsistence needs of the Natives” (Case and Voluck 2002, 285). By 1980, however, it had been realized that the state was incapable of doing so. As a result of this and other issues pertaining to the creation of National parks and preserves in Alaska, the Alaska National Interest Lands Conservation Act (ANILCA) was passed in 1980. Among other things, ANILCA gave rural Alaskans preference to subsistence resources and stated that the taking of such resources by rural residents was to be restricted only if the stock of the resources were in danger of declining. ANILCA also turned roughly 140 million acres of land into national parks and preserves and other restrictive federal land management schemes. Because much of this land selection coincides with traditional hunting and fishing grounds, the process of establishing who has the right to engage in what activities on these lands has been problematic and in many cases it is still unresolved (Case and Voluck 2002, 288-291).

Although not everyone was satisfied with the legislation or the process behind it, ANCSA was in many ways viewed as a victory for Alaska Natives since the people were now the legal owners of their land. It was felt that the need to secure future generations’ ability to subsist off the land had been accomplished (Arnold 1976, 145). However, this victory was accompanied with great challenges since the corporate structure also meant that the land could be lost if it was mismanaged according to laws pertaining to corporations. Furthermore, this new understanding of the land as something that needed to be profitable and something from where one could make money also has had an impact on the way people engage with the land. The corporation shares were frozen for twenty years, until 1991, after which they could be sold by the shareholders. This was of great concern for many, since the land that people had fought for in 1971 could possibly slip out of their hands after 1991 (Schaeffer and Christensen 2010, 63-66). Beside this real possibility of

losing the land, ANCSA also brought about changes in the way people were inclined to view and interact with the land. Generally speaking, a considerable consequence of ANCSA is the changes brought to the concept of homelands. From being something fluent and relational, belonging to the land became defined in terms of land ownership and was transformed into a static construct that froze the land base permanently. It is argued that this new concept of land ownership and the land being tied up in a village and a regional corporation changed the people's ability to live on the land and relate to the land in the same manner as previously (Schaeffer and Christensen 2010, 65-68; Case and Voluck 2002, 174-176). (For a more detailed discussion of past, current, and future issues with ANCSA, see Schaeffer and Christensen 2010; Case and Voluck 2002; Mitchell 2001; Fienup-Riordan 1984; Arnold 1976.)

Whereas the social and economic forces that helped establish the village of Igiugig developed slowly and were to a more or less extent incorporated with previous lifestyles and values, the political forces, and ANCSA in particular, brought about abrupt change. In the analysis it will be illuminated how the people of Igiugig maneuver within this context and what aspects of the corporate structure is seen as either restrictive or helpful in the community's sustainability efforts.

4.2 The People of Igiugig

As described in the previous chapter, today's Igiugig residents can trace their ancestry to Yup'ik, Athabascan, and Alutiiq roots. However, the majority of the inhabitants under the age of fifty also have a significant portion of non-Native in their family tree, either through a parent or grandparent. There are slightly more women than men in Igiugig and close to 60 percent of the residents are under age thirty with about 25 percent between eighteen and twenty-five. Most people in Igiugig are related to one another, mainly through Elders Mary Gregory-Olympic and Dallia Andrew. Currently two of Mary's daughters, seven of her grandchildren, and five of her great-grandchildren live in Igiugig.

4.2.1 Introducing the Youth

Of the twelve young people interviewed, five are women and seven are men and their ages span from fourteen to thirty-one. They were all Igiugig residents at the time of the interviews. Before embarking on the analysis it will be helpful for the reader to get an overview of who the youth are. In this way the reader can become familiar with the youth

and their backgrounds as well as get a general impression of the diversity of interviewees. Although the analysis builds on interviews with Igiugig residents of a variety of ages, it is the narratives of the youth that are of particular interest and focus and therefore this list is limited to this group. Other interviewees will be introduced with name when referenced or quoted in the analysis. The list of youth below is ordered alphabetically by first name.

AlexAnna Salmon, twenty-six, has lived in Igiugig since birth. She is the daughter of Julie Salmon and the late Dan Salmon. Julie grew up in Igiugig and Dan grew up in upstate New York. AlexAnna went to high school in Igiugig except for one year, which she spent in New York. She graduated with an undergraduate degree in anthropology and Native American studies from Dartmouth College in 2008. She is the president of the Igiugig Village Council and currently works as the village administrator in Igiugig. She is raising two girls, Erika and Dolly-Ann.

April Hostetter, nineteen, moved to Igiugig with her family from another village in the lake area twelve years ago. She is the daughter of Dave and Betsy Hostetter. Dave grew up in California and Betsy grew up in the lake area. April went to high school in Igiugig and began college at the University of Alaska Fairbanks in 2010. When she is home in the summers she works for the Igiugig Village Council.

Christina Salmon, twenty-eight, has lived in Igiugig since birth. She is the daughter of Julie Salmon and the late Dan Salmon. Julie grew up in Igiugig and Dan grew up in upstate New York. Christina went to high school in Igiugig and began a bachelor's degree in Journalism at the University of Alaska Anchorage but did not graduate. She lived in Anchorage for a few years but when she had her first child she decided to move back to Igiugig. She currently works as the manager of Igiugig's environmental program and she is raising two boys and a girl, Aiden, Keilan, and Dannika.

Dan Decker Jr., seventeen, has lived in a handful of villages before he moved to Igiugig with his family two years ago. He is the son of Susie and Dan Decker Sr. Susie grew up in the lake area and Dan grew up in Washington. Dan Jr. attends high school in Igiugig. He has a student job with the Igiugig Village Council.

Gordon Hester, twenty-two, grew up in another village in the lake area but moved to Igiugig three years ago. He is the son of Annie Hester and the late Robert Hester. Annie grew up in the lake area and Robert grew up in Ireland. Gordon began high school but did

not graduate. He has worked on rigs in King Salmon and Iliamna and currently he works for the Igiugig Village Council.

Ida Nelson, twenty-six, has lived in Igiugig since birth. She is the daughter of the late Agafia and John D. Nelson. Agafia and John both grew up in the lake area. Ida went to high school in Igiugig and has done various training in Anchorage and Igiugig. She works on-and-off for the Igiugig Village Council and she is raising two girls, Kiara and Shealaya.

Jack Wassillie, twenty-eight, grew up in another village in the lake area and moved to Igiugig five years ago. He is the son of Joanne and Raymond Wassillie. Both Joanne and Raymond grew up in the lake area. After high school Jack went to school for aviation maintenance but did not finish. He has done various training all around Alaska. He currently works for the Igiugig Village Council and he is raising two boys and a girl, Aiden, Keilan, and Dannika.

Jonathan Salmon, twenty-four, has lived in Igiugig since birth. He is the son of Julie Salmon and the late Dan Salmon. Julie grew up in Igiugig and Dan grew up in upstate New York. Jonathan went to high school in Igiugig and graduated with a bachelor's degree in business financing from Carroll College in 2011. He currently works for the Igiugig based contracting company, Iliamna Lake Contractors, as well as for the Igiugig Village Council.

Kevin Olympic, thirty-one, has lived in Igiugig since birth. He is the son of the late Anecia Olympic and Howard Nelson. Both Anecia and Howard grew up in the lake area. Kevin went to high school in Igiugig. He has spent an extensive amount of time outside of Igiugig due to medical reasons. He works on-and-off for the Igiugig Village Council.

Lukas Zackar, fourteen, grew up in another village in the lake area and moved to Igiugig with his family one year ago. He is the son of Olga Zackar who grew up in the lake area. Lukas began high school at Mt. Edgecombe in 2011. He has been working for the Igiugig Village Council as a student worker.

Tanya Salmon, twenty-five, has lived in Igiugig since birth. She is the daughter of Julie Salmon and the late Dan Salmon. Julie grew up in Igiugig and Dan grew up in upstate New York. Tanya went to high school in Igiugig and went to the University of Alaska Fairbanks for a teaching degree, which she is currently working on finishing. She works for the Lake and Peninsula School District at the Igiugig School and she is also the Social Services director for the Igiugig Village Council. She is raising a girl, Avery.

Terek Anelon, twenty-seven, grew up in another village in the lake area but moved to Igiugig three years ago. He is the son of Maria and Harvey Anelon. Maria grew up in Igiugig and Harvey grew up in another village in the lake area. After finishing high school Terek has done various training all over Alaska. He currently works for the Igiugig Village Council and he is raising two girls, Erika and Dolly-Ann.

5. Sustainability Analysis

The analysis aims at answering the first two research questions presented in the introduction: 1) in what ways is Igiugig working towards being a sustainable community and what challenges and solutions can be identified in this process; and 2) what is the role of youth in the sustainability efforts of the community and to what extent is the village able to accommodate the wants and needs of its youth. The third research question of the broader implications for the understanding of rural community sustainability will be discussed in chapter 6 Discussion and Conclusions. In order to answer the first two research questions the analysis takes its starting point in the youth and their narratives. It is through the eyes of the youth that I wish to understand the community and it is through their experiences we can gain an understanding of the ability of Igiugig to accommodate its youth.

The themes articulated by the youth have been consolidated into six major themes: connection to the outside, focus on the youth, openness to change, relationship with the land, innovation, and communication. These themes will be coupled with the general issues of sustainability in Igiugig, identified as: population, education, economy, food, energy, and political sovereignty. The coupling of the narratives of the youth with the more tangible community issues allows for a thorough investigation of the sustainability of Igiugig and will enable an identification of vulnerabilities and strengths as well as problems and possible solutions towards the community's sustainability efforts.

Whereas not all themes deal directly with the role of youth in creating a sustainable community, all themes have been articulated by this group. Thereby the combination of the themes represents the issues of community sustainability as identified by the youth. A theme such as "focus on the youth" deals more directly with youth than does a theme such as "innovation." However, because of the importance put on innovation by the youth in regards to solving community problems, this theme is indirectly about the youth and their relationship to the community. After each theme, the key points will be summarized and these points will later be discussed in chapter 6 Discussion and Conclusions. A brief summary of the general findings and points of further discussion will be presented in a table after the analysis.

5.1 Population and the Connection to the Outside

5.1.1 Population

Some of the youth interviewed are born in Igiugig, others have moved here with their families, and others still have moved here on their own. Gordon Hester, twenty-two, belongs to the latter category. Growing up in another village in the lake area, he and his family often came to Igiugig to visit his grandmother, Mary Gregory-Olympic, and other relatives. Gordon explains how he always enjoyed the visits to Igiugig and felt like this village was different than other places he had been. “Well, I came down here because I like it, you know, just the way it’s run around here. I can’t really explain it, it’s just, once you come here it’s like you can’t leave” (Gordon Hester 2011, 0:43). The way in which the community members help each other and the general feeling of community is something Gordon appreciates about Igiugig. On a similar note, Dan Decker Jr., seventeen, who moved to Igiugig a few years ago with his family, talks about Igiugig as a “different” community. He and his family have lived in many different villages all over Alaska because of his father’s job as a Village Public Safety Officer (VPSO). He describes Igiugig as a functional community and as a place where people interact with one another (Dan Decker Jr. 2011(I)). The youth that have been born and raised in Igiugig are not less aware of the qualities of their village compared to other places. Most of the youth identify the small size of Igiugig as one of the reasons for the good sense of community in the village. Terek Anelon, twenty-seven, who moved here from another village in the lake area three years ago, argues that a small village size makes it easier to care for one another.

IRMELIN GRAM-HANSSEN: Is Igiugig a different community than [the other community]?

TEREK ANELON: Way.

IGH: More than just size-wise?

TA: Way more than just size-wise, there’s a lot more pride here, there’s a lot more, people care more here. Up there, there are just too many people to really, I think, to focus on much anything anymore. So I’d pick here any day over anything. I love going home every once in a while but a couple of days is too much. (Terek Anelon 2011, 0:46)

Others also mention the culture shock of going to Anchorage where the sense of community and the social safety net is exchanged for neighbors you do not know and

landlords that will throw you on the street if you miss rent. In general there is consensus among those interviewed that Igiugig is a safe community, a place where you can let your children run around outside without direct supervision because you know that everyone will watch out for them as if they were their own children. Ida Nelson, twenty-six, wants her two children to grow up in Igiugig because she finds this to be a safe community where people help each other. Being a single parent, Ida also finds village life less stressful than in a big city.

IDA NELSON: Here at home in the village it's okay to be broke. You could have food, you could...It's okay to be broke, pretty much. And you don't have to, you know, wonder how you're gonna be getting your next meal, how much gas you can put into the tank, or how much money you're gonna be spending on this or that. Here, to me it felt like a security blanket, cause I've been raised here. I know the people up here and they know me and... So to me it was home, here it's home. (Ida Nelson 2011(I), 5:33)

However, the small population base also has its drawbacks. As the two youngest of the youth interviewed, Dan Decker Jr., seventeen, and Lukas Zackar, fourteen, are also the ones who mention the lack of young people their age as something they dislike about Igiugig. When he is not in school or working for the Igiugig Village Council, Lukas goes for four-wheeler rides, works out, or plays X-Box but sometimes he is bored and he thinks it is because there are too few young people his age. Several of the youth also mention the difficulties of finding a partner. For the majority of the youth the lake area is largely off limits in this regard because the percentage of relatives living there is overwhelmingly high. Those of the youth that have found partners outside of rural Alaska have had a hard time bringing them back to Igiugig. Everyone agrees that it takes a special kind of person to live in a village and for that reason most of the youth prefer their partners to come from rural Alaska.

The village tries to increase the possibilities for its youth to engage with other youth by participating in various youth programs, mainly through the school. Basketball tournaments, carnivals, Battle of the Books, and Bible Camps give school children and youth several chances a year to go to other villages and meet with other youth. Most years the school puts on a fundraiser for the children to go on a school trip to the Lower-48 or outside the US. This year the destination is Orlando and Boston. The whole village comes together to raise enough money for the trip and the Igiugig Village Council contributes with a significant

amount of funding in exchange for various community-work. Children, parents and grandparents help raise funds by collecting trash, weeding in the greenhouse, or making crafts and selling them in the little gift shop to other villagers or sport-fishing tourists. Some funds also come directly from tourists that subscribe to the electronic Igiugig Newsletter and send checks to the village. Despite these efforts some of the youth have found the small size and the isolated location of the village problematic, especially during the middle school and high school years. April Hostetter, nineteen, says:

APRIL HOSTETTER: I guess sometimes it can be hard living in such a small place, and very isolated like I said. Sometimes it can, like, get frustrating because maybe you, like, clash with people but then you have to also just work together with them because you live in such a small place. But for the most part... It's okay now, I think before I just... When I was younger, maybe like early teens I just, I really wanna travel the world and what I wanted to do was just leave here and never come back and just go all over the world and see it and I think, I just didn't like it here because it was so isolated so... Just the same people and the same... You don't, there's not a lot of diversity and so I think that's why I didn't really like it. (April Hostetter 2011, 32:46)

With a few exceptions, the youth all went through a period of a few years, generally in the middle to late teens, where they felt a great need to leave the village. For all of the youth interviewed, however, this feeling of isolation and boredom has largely vanished and none of the youth who are in their twenties expressed having any such feelings currently. As becomes clear, the teenage years are in many ways the most challenging for the youth in relation to living in the village.

On a practical level, a small population can also be problematic. As of October 2011 there were eleven students enrolled in grades K-12 at the Igiugig School. After a law was passed in 1999 by the Legislature that cuts off state funding for schools with nine or fewer students (DeMarban 2012), the minimum student enrollment requirement for the Lake and Peninsula School District, as for any Alaskan public school, is ten students. This leaves Igiugig School at the border of closing down and every high school student that graduates leaves a gaping hole that has to be filled up as soon as possible. The ramifications of closing down the school would be immense. Because of the state requirement that every child between seven and sixteen years of age be given a formal education, the villages with schools were historically the villages that grew whereas those without a school dwindled

and some eventually ceased to exist. In the case of Igiugig, as described earlier, it was not until the school was built in 1967 that the village grew to be more than a handful of families. When asked about this time in the village's history, Elder Mike Andrew says, "You wanna know about Igiugig? Cause we were here long time. When I first move in, before I met Dallia, there were three houses in Igiugig, that's all" (Dallia and Mike Andrew 2011, 11:20). After some years living in Alagnak Mike and his wife, Dallia, moved to Igiugig because of the school. Dallia explains how important it was for Igiugig to get a school, "Because before nobody go school everybody move away go school, cause we didn't have no schooling here. They move where the schools are, big families too before, we didn't have school or anything before, we didn't get the school right away, we get it kind of. But we make it though" (Dallia and Mike Andrew 2011, 9:00).

Igiugig Elder, Annie Wilson, was born in Igiugig before the school was built and her parents subsequently moved to Levelock to put their children in school. Later on in her life, Annie moved back to Igiugig to start her own family, knowing that she would be able to put them in school in the village. The establishment of the school was a strong settling force in Igiugig and the school still plays a big role in the community. Although other factors play an important role in why people decide to live in any given community, such as family relations and employment opportunities, the presence of a school can make or break a village in rural Alaska. Since 2010, six schools in rural Alaska have closed, some in southwest Alaska. Some of the consequences of the school closure for these villages have been outmigration of families with children and delays or cancellation of social services and infrastructure upgrades (DeMarban 2012). The fear of having one's children taken away if one failed to send them to school was a strong incentive to settle into a village with a school during the 1940s and 50s. Whereas that fear may or may not still be there in people's minds, today's parents in Igiugig want their children to have a formal education because of the possibilities a high school degree brings.

Another practical issue in regards to population is keeping the various jobs in the village occupied. Whereas many villages in Alaska struggle with unemployment and too few jobs, the village of Igiugig is dealing with the opposite scenario: there are more jobs than people in Igiugig. The day-to-day work of keeping the village running, such as keeping up with paperwork, general maintenance of facilities, and the oversight of new and ongoing projects, demands a wide range of employees that are knowledgeable about the various aspects of the village and who are able to see projects through from start to finish. In her

interview, Igiugig village administrator AlexAnna Salmon, twenty-six, talks about how issues of qualification and motivation can be problematic when one is dealing with a small pool of employees. Speaking specifically of employees who do not show up to work after drinking too much, she explains:

ALEXANNA SALMON: That person, you might lay them off for that time period but at some point you're gonna need to hire them again because they're gonna need the income or you're gonna need their help. It's hard to keep a professional hard line of this is, "one strike and you're out," or like the rules that are at play in the outside world, or if you mess up and that's on your employee record you're gonna have a hard time getting hired again. That doesn't happen out here and I learned from my dad, like (...) he just said, "you know they cycle, the people who drink like that, so you'll have them and then it'll be like a real down period and then they feel bad about what they did so they overexert their contribution to the community, or maybe they drank and their fish went bad and so they didn't get fish, they're borrowing food so maybe they'll go chop you wood or whatever to pay it back." (...) so if you, if you're gonna keep a hard line of "well, I'm not hiring them again," it's not going to benefit you as the employer cause people will leave or you're gonna get overwhelmed and you're gonna need that help. So you just kinda take it day by day, which is, like I said, part of my biggest struggle, take it day by day, like you can't bite off too much because you don't wanna be overloaded. (...) So our biggest problem in this village, and part of it is population, is the workforce problem. If we had everyone working at a hundred percent, we'd be dynamite; it would almost be too good to be true. But I don't think any community does, it's almost too ideal.
(AlexAnna Salmon 2011b(I), 33:20)

A small population size requires a different approach to employment and creates different social dynamics than in bigger cities where employees are expendable to a higher degree. In Igiugig, everyone is valuable and their contributions to the community a necessity for the village to function. Whereas this makes it harder for the village administration in some regards, it also reinforces the feeling of security mentioned by some of the youth. Despite Igiugig's workforce problem, the village recognizes that not all of its inhabitants can or should be working full time. AlexAnna argues that in every community there must be people that pursue jobs and people that do other things, such as full time parenting (AlexAnna Salmon 2011b(I)). Regardless of this observation, however, Igiugig is vulnerable

because of its small population. This vulnerability is largely connected to the lack of diversity within the population, not because of the individuals but because of the small number of people. Because of Igiugig's isolated location and its status as a tribal government, there exists nearly as many job descriptions connected to administration and maintenance as in a big city, such as Anchorage. Everything from managing electricity, water, and waste disposal to grant writing and organizing social events has to be dealt with by the Igiugig Village Council. However, the number of people who can occupy these jobs makes up a fraction of that in Anchorage. Although not faced with school closure or personnel burnout at this point, the risk of something like that happening is a constant threat to the sustainability of the community and the health of its inhabitants.

However, Igiugig is trying to be proactive about this issue by increasing its population and heightening the qualification level of its inhabitants through training and internships. Like other communities on the verge of school closure, Igiugig is reaching out for families with children to bump them up above the ten student minimum requirement. A few years ago the Decker family moved to Igiugig for Dan Decker Sr. to take on the position as the Village Public Safety Officer (VPSO). With their nine children and grandchildren, five of whom attend Igiugig School, the family has also helped to keep the school running. Besides bringing in people from the outside, village inhabitants also make a conscious effort to help increase the population. Having given birth to her daughter, Erika, less than two months prior, AlexAnna Salmon says with a smile that she is doing her part to keep up the population of Igiugig (AlexAnna Salmon 2011b(I)). Although AlexAnna is saying this jokingly there is some seriousness in her statement: it is everyone's responsibility to keep the community going, whether it is working at the power plant or raising the new generation of Igiugig residents.

As mentioned by AlexAnna in the quote above, the lack of a qualified workforce is another problem connected to a small population size. Whereas all people in Igiugig have qualities that are useful for the village in some way or another, there is a need for more qualified and engaged employees. The state offers a wide range of training programs, and Igiugig takes advantage of many of them. Constantly trying to improve their community and their own self-reliance, most Igiugig residents have gone through several different training programs, some of which have been directly through the Igiugig Village Council. Jack Wassillie, twenty-eight, did power line operator training and Terek Anelon went to Seward for heavy diesel mechanic school. Most of the youth interviewed have done this kind of

training with the village in mind; wanting to help the village and be able to make a living there.

In relation to the lack of skilled labor, Igiugig Village Council is considering recruiting people from the outside to help occupy some of the many jobs that are currently vacant or being done by people that already have “too much on their plate.” AlexAnna estimates that there are currently twenty-seven unoccupied positions in Igiugig, most of them halftime (AlexAnna Salmon 2011b(I)). The village already has hired an outsider to be the day-to-day assistant manager of their contracting company, Iliamna Lake Contractors (ILC). Born in the lake area, ILC assistant manager Karl Hill, moved to Igiugig a few years ago with his wife and their two children – another important contribution to the school. However, increasing the population is not a solution in and of itself. In her interview, AlexAnna points out that integrating a new family into the community is hard work and that it takes a certain mindset of the newcomers to make it work (AlexAnna Salmon 2011a). A new family could be a lifesaver or simply one more set of mouths to feed and according to Jonathan Salmon, twenty-three, “the downfall of a community is when a lot of people live there but nobody wants to do anything” (Jonathan Salmon 2011, 22:35). However, in the end the village has got to make ends meet and if the workforce can not be found in Igiugig, AlexAnna concludes, it will have to come from outside, at least in the short term (AlexAnna Salmon 2011a). To alleviate some of the administrative workload, the village has hired Kannon Lee, a friend of AlexAnna’s from Dartmouth, as the new Grant and Procurement Officer. The influx of resourceful outsiders is hoped to allow the village administration to focus on the overall community planning rather than the day-to-day operation and reporting that is required to run a village. Finding the right population size for the community is a balancing act and every one of the youth that were interviewed say that they prefer Igiugig to be small and that one or two more families will be good, but not ten. So far Igiugig has largely been successful in bringing in new families and the newest additions have quickly become part of the community.

On a larger scale there are things that could be done in order to relieve Igiugig from some of its population-related stress and vulnerability. In relation to the school it is obvious that a lowering of the minimum student requirement would secure the continuation of the Igiugig School to a higher degree. It would reduce the need to go “hunt” for families with children and would prevent families from feeling guilty for sending their children to Mt. Edgecombe and other schools for high school. In the Lake and Peninsula School District,

however, this does not seem to be the direction in which legislation is headed. Instead, the minimum is proposed to increase from ten to twenty students (The Lake and Peninsula School District 2011, 4). Whereas there is no actual plan underway to implement this change, such a change would pose a great challenge for Igiugig and would necessitate a nearly doubling of the population if they were to keep the school.

Besides the likely difficulties the community would have in finding an additional nine students for the school, increasing student enrollment is also not necessarily looked upon as a good thing in the community. AlexAnna argues that a small student pool increases one-on-one time with teachers, as well as reduces the amount of bullying among the students (AlexAnna Salmon 2011a). As in relation to the benefits of a small population size, it is felt that a small school helps prevent anyone from “falling through the cracks.” Worst-case scenario, a change in regulations could cause the Igiugig School to close with the repercussions this might cause, such as outmigration. The proposed raising of the minimum student enrollment requirement is undoubtedly related to the past years’ poor test results in rural schools as well as high dropout rates compared to the state and national average. According to a study from 2009, American Indians and Alaska Native students in rural high schools have the lowest graduation rate in the country; a mere 51 percent compared to the 73 percent of the overall high school graduation rate for rural high school students across the nation (Alliance For Excellent Education 2009, 2). This is fostering reluctance within the state and federal agencies to fund small schools in rural Alaska (Yardley 2009).

When asked what Igiugig’s strategy will be if the school has to close down, AlexAnna says that many parents will home-school their children. It is her sense that no one in the community would want to send their children away for school (AlexAnna Salmon 2011, personal conversation). Out of the twenty-six Igiugig residents that participated in the Bristol Bay Regional Vision survey in 2010, 10.5 percent mentioned home schooling or boarding schools as options for their children’s schooling if Igiugig School close down. However, 89.5 percent preferred trying to recruit new employees with children as a way to keep the school operating. No one said that they would move from the region (Bristol Bay Regional Vision 2010a, 16). AlexAnna also refers to the fact that her younger sister, Tanya, is in the process of finishing her teaching degree and that a small unofficial village-run school would be a possibility as well. Privatizing the school and taking it over, however, with all the administrative work this would include for the village, is not something AlexAnna foresees happening (AlexAnna Salmon 2011, personal conversation). Currently the number of

students fluctuates from ten to fifteen, and unless the minimum student enrollment requirement changes, the community is not fearful of losing their school.

5.1.2 The Connection to the Outside

On an individual level, the people that struggle with the small size and relatively calm social life of Igiugig find relief in connecting with the outside. Besides attending school-related activities in other communities, the youth are generally speaking very connected to the outside through social media, such as email, Facebook, and texting, as well as through trips to Anchorage. Those of the youth that have completed their education and training and now work in Igiugig are especially mobile. Through the Igiugig Village Council there are several opportunities every month to go to Anchorage, Dillingham, or even Juneau and Washington, D.C. for meetings, conferences, and training. Several times a week villagers are coming or going with the planes that serve Igiugig on an “as-needed basis.” In general, almost all youth interviewed mention the importance of being connected to the outside. Christina Salmon, twenty-seven, works for the village and shares an office with her two younger sisters with whom she works everyday. When asked about being connected to the outside through social media and trips to Anchorage she says:

CHRISTINA SALMON: It’s extremely important. Yes! I would go crazy. Could you imagine if I only talked to these same sixty people every single day of my life? Oh man, it’s a miracle that we all remain friends. Sometimes I look at us and especially the three of us girls in the office together, and I have to see my sisters everyday and we’re not always happy and we’re not always happy with each other. So there are definitely days where I’m like, “don’t talk to me, you need to go away because you’re grouchy and you’re not taking it out on me.” (...) But I do like talking to my friends from out of town cause then I can get caught up on Anchorage news and it just kinda lets you, you know, you get to check out of reality for a little bit. (Christina Salmon 2011(I), 6:54)

Social media, and especially Facebook, has proven to be a very popular way for people in rural areas to stay in contact with friends and family in other parts of the state, although there is a lack of research done on the implications of this. TV and Facebook are also mentioned by some of the interviewees, however, as a potential source of confusion for children and young people. Through these types of media the youth are presented with a wide range of cultural expectations and ideals that might not correlate with life in rural

Alaska. Especially the adults and Elders that were interviewed expressed concern in this regard.

IRMELIN GRAM-HANSEN: Do you think having that constant contact with the outside [through the internet] makes it easier to live here?

MARTHA CROW: In some ways it is. I think it does when you really know who you are and when you really know where you belong.

IGH: Mm, what about kids who are figuring out who they are?

MC: Mm, I think it causes confusion in the end, I think what really needs to happen is parents really need to be involved with their kids, to talk with them and have them know where they're from so they have a sense of belonging instead of being on Facebook or the internet to try and figure out where they fit in the world. (Martha Crow 2011, 39:42)

Many of the youth with children also mention TV as something they prefer their own children to be largely without. A main reason for this is that it prevents children from being out on the land and interacting with their Elders, two values that are mentioned in all of the interviews. Technologies for communication and obtaining information are very helpful, however, for keeping in contact with family and friends. Furthermore, according to a study done in 2011 by Hudson for the Institute of Social and Economic Research, Information and Communications Technologies (ICTs) are also vital for community development. ICTs can provide an infrastructure for healthcare, energy, education, government operations, economic opportunities, and public safety. The study argues that the investment in innovative ICTs can strengthen the connection between rural and urban Alaska and enable rural communities to access services that contribute to the general wellbeing of village residents (Hudson 2011, 4-6). Similarly, AlexAnna argues that being connected to the outside serves as more than simply connecting the youth with outside friends:

ALEXANNA SALMON: I recommend people having a network outside of Igiugig for their own sanity so that you continue to keep a more global outlook than just a local perspective on everything and so that you can help bring those resources here. And I've had friends who have come in and worked for our tribal government or for the businesses and, like, my brother brought up his friend to go commercial fishing since he couldn't, so, then they get to experience Igiugig too and then we have those networks outside of this village to call on. You never know what capacity people are gonna serve on later on in life and Alaska's a small state and if you know someone

sometimes that goes further than, further than money, just knowing the right person. (AlexAnna Salmon 2011a, 1:17:20)

This degree of connectedness can possibly help reduce the vulnerability of the community and individuals since there are outside resources to draw on both in day-to-day life and in the case of emergencies. Being connected to people in Dillingham, Anchorage, and Juneau as well as the University of Alaska provides various avenues to go down when in need of help, either to fund a project, to effect policy, or to get a job done.

For some of the youth, however, having a personal connection to the outside is less significant and for some even without importance all together. This is especially the case for those of the young men who have come back from spending some time “outside” as part of training or college. Generally speaking, the importance put on connection to the outside seems to be falling into these two categories according to gender. Terek Anelon says in his interview that he would be perfectly happy never leaving the lake area. Gordon Hester is similarly content with spending the rest of his life in or around Igiugig, although he stresses the importance of leaving rural Alaska at some point in ones life and to see how other people live and interact. Both Terek and Gordon have spent a significant amount of time “outside” as part of training and work.

The majority of the youth, however, seem to be open to the idea of living somewhere other than Igiugig, at least for a while. When asked about where the youth imagine themselves living and growing old, the majority of those who say Igiugig also include some kind of disclaimer in their statement. When asked if AlexAnna Salmon thinks that she will end her life in Igiugig she replies, “Yes! I will be buried over there by the church. Ehm, I don’t know where I’m gonna be, like, for the next, you know, forty years, but I’ll always maintain a connection here and definitely my primary residence, so... I’m a lifer” (AlexAnna Salmon 2011a, 0:20). Others play with the idea of living in Igiugig semi-permanently or seasonally, such as Dan Decker Jr. and Lukas Zackar. In their interviews they both suggest living in Igiugig during the summer months and somewhere else, such as Anchorage, the rest of the year. For most of the youth it does not seem to be a question of staying or leaving, but rather a question of seizing the opportunities as they present themselves, i.e. responding to change and being adaptable. Although eager to live in other places and able to feel at home wherever she goes, April Hostetter still imagines that she would move back to Igiugig if it proved to be important for the village.

APRIL HOSTETTER: I think I would, if that would make a difference, because I wouldn't want to see Igiugig, because it's such a, I think, special place, I wouldn't want to see it, like, stop functioning. I think also for, like, the sake of the people that live here that it's, it is like a really good place to grow up, I mean, despite not having as many opportunities but you can, I think, always get those opportunities later. Like, for the little kids here, they really love it here and it's the atmosphere and I think them growing up will be important, like, them staying here if they wanted to, I think I would come back to make sure that they have the opportunity to still live here. And like the school, like it's really important that the school gets enough kids, cause without the school there is no community. (April Hostetter 2011, 58:50)

Like with many of the other youth, April is open to the idea of living in Igiugig for the majority of her life, but it is not something she is able to determine at this point in her life. Again, the youth seem to have a great adaptability that allows them to take advantage of whatever opportunity that presents itself while simultaneously keeping a close connection to Igiugig. Of course, there is a possible disconnect between what the youth think they will do and what they actually do in a situation like the one mentioned by April. However, there seems to be a general devotion to Igiugig among the youth that are in their middle to late twenties. An example of this is the return of the three Salmon sisters, Christina, AlexAnna, and Tanya, to Igiugig after their father passed away in 2007. In their interviews, all three women explain that they knew they wanted to come back to Igiugig eventually but that they did not think it would be so soon. AlexAnna wanted to travel the world and maybe do an internship in Washington, D.C. but ended up returning to Igiugig after finishing her bachelor degree at Dartmouth College. She came back to be with her family and to take over the position as village administrator, the job title her father had occupied the last twenty-five years (AlexAnna Salmon 2010). Whereas none of the sisters regret the decision to move home and any feelings of having sacrificed their dreams for the village are largely absent, they all mention living somewhere else and trying something new at some point in their lives. Even for those of the youth who seem most invested in the community the future is not set in stone. According to the Bristol Bay Region Vision consensor from 2010, more than half of the twenty-six Igiugig residents in the survey declared that they were planning to live in Igiugig for the rest of their lives. Around one-fourth said that they planned to move away for awhile but return to the village later on in their lives (Bristol ay Regional Vision 2010a, 12).

In general, the interviews seem to indicate that the youth with children are more settled in Igiugig and less in doubt about where to live, although most of them still keep the opportunity of picking up and leaving open. The wish to raise their children in Igiugig and give them the sense of community that they themselves were brought up with seems to be stronger for most than the wish to explore other parts of the country and seek career opportunities. Although Christina Salmon, who is born and raised in Igiugig, remembers wanting to leave the village and never come back when she was in high school, she now lives in Igiugig with her three children. She explains her choice of returning to the village after several years “outside” as something she did partly because of her own wants but mainly because of her children:

CHRISTINA SALMON: But really, after I had Aiden [her oldest child] we were living in Anchorage, I really missed my grandma and then I was missing the lifestyle, like, I wanted to do fish and I wanted to catch caribou and I wanted to go egg picking and I wanted to go berry picking and all, like, I missed picking berries and it’s funny cause growing up I hated picking berries cause we had to do it, it was a chore. And then I decided I wanted, like, we had a five-foot wide by twenty-foot long driveway that Aiden played in, on pavement. He couldn’t go anywhere, he could never leave the yard, he could never get out of his car seat, he just didn’t get to be a kid and I felt like in order for him to experience, you know life growing up with myself, like, how it was for our family, that I couldn’t do it in Anchorage and he wouldn’t learn our tradition, our culture, or probably even just be a hard working kid, cause what would he do in the city? He would do nothing, he would play around in the house and play around in the yard and that’s it, he wouldn’t have the freedom of just running off and doing a tundra trail somewhere like we used to go exploring, so...

IRMELIN GRAM-HANSEN: So even though you remember being so bored you were going to give your children the same...

CS: Cause the conflict, in the end the result is worth more than raising them in the city. And I want them to be close to my family and my grandma is getting old and I really want them to remember her, like, not just be like, “oh that was amau.” I want them to know her. So we spend, especially in the summer, we spend a lot of time with them at the beach, the kids are at the beach all summer with us doing fish, I can’t wait. So, I wanted them to have that, I wanted them to have the schooling out here with, you know, six kids in a class room and a teacher to yourself. You never get that in a city. And I know that, you know, it just makes them become more

responsible and hard working and, cause they're gonna have to work and they're gonna have to work for free and then they're gonna learn, you know, how to be responsible and take care of their possessions and I think they can get that out here. I can't send them to shovel snow in somebody else's driveway out in Anchorage. But here I can be like, "now go to your grandma's house and clean dog poop." (Christina Salmon 2011(I), 10:03)

The importance of family is central to many of the youth. For Christina it is not only important that her children know their grandmother but also that they are familiar with the values and can participate in the lifestyle of their grandparents. This is not only about maintaining family relations but fits into a bigger picture of the perpetuation of culture through the transfer of knowledge. The people interviewed who spoke about this issue indicated that this is best done through continuous interactions between children and their Elders. This issue will be discussed further in the following themes of the analysis.

In the quote above Christina also speaks about another central theme that has come up in most of the interviews; that the hardship of growing up in a small village – such as being bored, not having access to the same opportunities and entertainment as in the cities, and having to work for other people in the village for free – has benefited the youth when they went on to go to college and manage their own lives. In all of the interviews the culture of the village comes up as something significant and something the youth feel lucky to have been brought up in. Tanya Salmon, twenty-four, explains it this way, "I think also having all that responsibility as a kid helped us with the responsibility that we've taken on later. And looking back our parents must have had a lot of trust in us to do a lot of these things" (Tanya Salmon 2011(I), 29:25). Tanya refers to some of the many tasks that she and her siblings as well as other village kids were trusted with, such as helping to write grants or going along on trips with the barge. Being entrusted and included as a young person is something the youth mention as a significant characteristic of the culture in Igiugig. The implication and effects of this overall inclusion of the youth in the various aspects of community life will be discussed further in the next theme of the analysis.

5.1.3 Summary of Key Points

Igiugig's small size is considered by the youth to contribute to both the strength and the vulnerability of the community. The sense of community and caring between people is something the youth attribute to the small size and something that is very attractive for

everyone interviewed. Safety is also an identified benefit and the notion that it takes a whole community to raise a child is an underlying assumption in this regard. There are many aspects of a small population size, however, that are viewed as posing threats to the sustainability of the community. For many of the youth, attending a school of around ten students has been rather lonely at times, and in several interviews the youth referred to being bored during the early to middle teens. April Hostetter mentions the lack of diversity as a reason for this sense of boredom. Relative to the size of the community, the population of Igiugig is actually rather diverse (such as age, cultural background, schooling, and so on), but in comparison to bigger cities, such as Anchorage, this diversity is dwarfed due to the difference in population size. Regardless of the relative diversity, the feeling of living in a place where nothing ever happens weighs heavy on the younger of the interviewees and the vast majority of young people leave the community for a while after they finish high school.

This relates to the connection Igiugig residents have to the outside, an issue that points to the questions of over- and under-connectedness as defined in the framework for vulnerability analysis. Through the narratives of the youth, it appears that the relatively tight connection to the outside contributes to the strength of the community, as it serves to alleviate certain frustrations connected to life in a small village. It is argued by AlexAnna Salmon that time spent “outside” is well worthwhile since the connections the young people make during this time can function as a resource to draw on later on. Whereas it is a goal to become as self-reliant as possible, AlexAnna acknowledges the importance of staying in tune with what goes on elsewhere in the state. Igiugig is also connected to the outside through the employment of outsiders. This is a response to the challenges posed by a small population and the rare situation of having more jobs than people.

Whereas being connected to the outside can help the youth be satisfied with living in a small community, it also raises the question of what it would be like to live in the city and take advantage of the many possibilities available there. Mobility seems to be the general strategy in this regard, as the youth express interest in spending part of their time in Igiugig and part of their time elsewhere. Even the young people who are most obviously dedicated to the community keep open the possibility of leaving. Whereas this uncertainty does pose some challenges to the sustainability of Igiugig, the flow of people coming and going also contributes to the strength of the community because of the resources this mobility has the possibility to foster. If this mobility was restricted, if for instance fuel prices grew to where residents were no longer able to come and go at the same rate as now, the youth would

necessarily have to choose where they would like to be. This might pose real challenges to Igiugig, since it is likely that some of the youth would choose to live in Anchorage and only come to the village every now and again for visits.

The interviews indicate that the issue of outmigration in a community sustainability perspective is not one of either staying or leaving. Rather, what seems to indicate a healthy population is a general feeling of being connected to the community. Judging by the narratives of the youth, this feeling leads the young people to do their part in the pursuit of a sustainable community. What “doing their part” is taken to mean, is relative to the life and aspiration of every young person individually. What the village does to instill a feeling of belonging in its youth is illuminated through the remaining themes of the sustainability analysis.

5.2 Education and the Focus on Youth

5.2.1 Education

Igiugig is an unusual community on many levels. One of the more striking exemplifications of this might be the percentage of village inhabitants with a secondary degree. In 2009 roughly 60 percent of Igiugig had a high school degree and 10 percent had an associate degree (City Data 2012)⁹, whereas three residents had a college degree. However, as of 2011 eight Igiugig residents have or are in the process of pursuing a college degree, six of which are under the age of thirty. This indicates that the focus on education has increased with the current generation of youth. The importance of education is something that has come up in nearly all the interviews, with a few exceptions. When talking about the culture of Igiugig most of the youth mention the importance put on education and a general focus on the youth. Both characteristics are seen by the youth as significant contributors to the success of the village as well as themselves as individuals. For April Hostetter, high school in Igiugig was a positive experience, largely because of the competence of the teachers and the general support of the community.

APRIL HOSTETTER: I’m glad I went to high school here and I’m glad my parents moved here because the community really supported education. Like, it’s kinda like

⁹ These numbers only include individuals who lived in Igiugig in 2009 and do not take into account individuals who were away from the village in pursue of a degree.

they had an expectation but it wasn't one of those expectations that they'd be like extremely disappointed if you didn't do well but everybody would always be pushing us to do our best, like, they wanted to see us do our best. So I think that was really helpful. And the teachers that we had, Kristin and Mark, they stayed here for like five years I think, and I think that was a really good thing for me because Kristin knew where I was and how to help me and help me get to where I was trying to go. (April Hostetter 2011, 2:33)

April touches on two very important issues in relation to education in as well as outside of rural Alaska. One is the importance of competent teachers that are devoted to the community and that know the students on an academic as well as personal level. The turnover-rate of schoolteachers in rural Alaska is twice that of urban Alaska. A study from 2008 found that teachers with one year or less of experience were more than twice as likely to quit their job than were teachers with six or more years of experience, 24 percent and 11 percent respectively. The study further concluded that issues such as lack of good housing, geographical isolation, high costs of living and travel, and limited access to medical care all contributed to this tendency (Hill and Hirshberg 2008, 1-2). An earlier study determined that the Lake and Peninsula School District, of which Igiugig School is part, had a turnover rate of 34 percent from 1999 to 2004 compared to the 14 percent state average. Out of the forty school districts in the study¹⁰, the Lake and Peninsula School District had the ninth highest turnover rate (Hill and Hirshberg 2006, 22). According to April, it had a positive impact on her that the teachers who were teaching at Igiugig School when she attended high school stayed for the duration of her schooling. She believes that her experience is rather exceptional and that most rural schools have a higher turnover rate than that. According to what she has heard, teachers in other places do not stay for very long and most of them are newly educated and not very confident. The fact of the matter is that in any given year nearly one third of the teachers in rural Alaskan schools are new to their position. This means that the average teaching period for a teacher in rural Alaska is three years (Barnhardt 1999, 2).

The high turnover rate for teachers in rural Alaska has been identified as a possible contributor to another issue: the low graduation rate among Alaska Native students. According to a study from the Editorial Projects in Education Research Center, only 42

¹⁰ There are a total of 55 school districts in Alaska.

percent of Native students in Alaska graduated from high school in 2004 compared to 70 percent of their non-Native fellow students (Editorial Projects in Education 2007). According to Ray Barnhardt (1999), part of the reason for high teacher turnover rates as well as the low graduation rates and academic standards can be found in the inexperience of the teachers that come to rural Alaska from the outside. They are not necessarily inexperienced in relation to teaching but rather in relation to Alaska and they have especially insufficient knowledge of and understanding for Alaska Native cultures. Barnhardt suggests that a partial solution can be found in the increase of Alaska Native teachers as well as mandatory cultural orientation workshops and classes for outside teachers (Barnhardt 1999, 3). An article in the online academic student journal, *Student Pulse*, concluded that, "The impact of high turnover outweighs any benefit students might enjoy from having a 'more qualified' instructor" (Glavinic 2010, 2) coming from the outside. It is debatable whether "qualified" should refer to a higher degree or a better understanding of the context in which the students find themselves. However, the numbers above speak for themselves.

The other issue addressed by April is the importance of community-supported education. Knowing that the community supports her in her academic efforts, April has found it a lot easier to focus on school and figuring out what she wants to do. She says that it is both about living up to her own expectations but also to those of the community. Making the community and her family proud of her makes her believe in herself. When she was in high school everyone in Igiugig would know about how she was doing and although it was sometimes embarrassing if she did not do good it also motivated her to do better in the long run. This is becoming clearer to her as she has begun college in Fairbanks, and she is finding that it is more difficult to do well when people who know her are not around and do not know what is going on. A study from 1998, on the connection between ethnic identity and aspirations among rural Alaska youth, found that the encouragement and acceptance of the community plays a significant role in whether or not a young person chooses to go to college. According to the study, college is not always encouraged because of an ambivalent view on the implications of formal education.

Some perceived college as a route that expands young peoples' choices, improving their chances of a happy life and financial independence while giving them more power to help their people or communities. Others expressed concern that college draws young people – especially potential leaders – away from the bush. It often

trains them for jobs that do not exist in their home communities, and thus represents a step towards mainstream life. (Seyfrit et al. 1998, 343)

According to the study, parental and grandparental support of the college aspiration of adolescents in rural Alaska is of special significance, especially to those adolescents who identify themselves as either Alaska Native or “mixed.” Those who self-identified as non-Natives in the study were more compelled to be encouraged or discouraged by their own academic performance as well as their peers. Seyfrit et al. attempts to explain this difference:

Among Native students, grandparents who support college goals for their grandchildren might enhance the legitimacy of these goals because as Elders they, even more than parents, represent the cultural identity the youth holds. Among students with a mixed background, Native grandparents supporting college may give a sort of cultural “permission” to participate in social change. Support for college by non-Native grandparents of mixed-identity students coincides with the identity the young person has for him or herself. Among non-Native students, as this interpretation predicts, we found no comparable grandparent effect. (Seyfrit et al. 1998, 360)

In Igiugig education is highly valued and everyone in the community is engaged in school activities in one way or another, from serving on the Lake and Peninsula School District School Board to attending fundraising events and coaching basketball. The Igiugig Village Council manages the Dan Salmon Scholarship Fund, which gives out scholarships annually to Igiugig residents pursuing a college degree or other forms of education. The teachers that come to Igiugig usually stay for longer than the state average for rural schools. Trying to make their teachers stay for as long as possible (given that they live up to the expectations of the community), conscious efforts are made to accommodate the teachers and integrate them into the community. The teachers that April refers to in her interview stayed in Igiugig for eight years but retired in 2009. The current teachers are a young couple, Andrew and Katy Scrivo, who have been teaching in Igiugig since the fall of 2010. They have both taught in rural schools in southwest Alaska for several years prior to coming to Igiugig. Andrew and Katy agree that Igiugig is a different community than most when it comes to their support for education and the school.

KATY SCRIVO: When I first came in this district six years ago it was like, this was like the golden child school, it was like everybody was so academically minded here that you'd hear these stories about Igiugig (...) Everybody really supports the school, they come to all the meetings that we have, parents come to parent-teacher conferences, you know, people wanting to know how they can help out, it's very different." (Andrew and Katy Scrivo 2011, 3:32)

According to Katy, good teachers and a supportive community are variables that support one another. "Having such a supportive community makes it easier for a teacher to want to stay because you are not burning out trying to do everything without support or defending the things that you're doing to a community that's not supportive" (Andrew and Katy Scrivo 2011, 8:35). Besides Igiugig's good reputation, Andrew and Katy wanted to come to this community because of the ability to live a subsistence lifestyle. They hunt, trap and fish and they grow their own vegetables. Their engagement in these activities helps integrate them into the community. Andrew and Katy would like to stay in Igiugig over the summer months but because the school district raises rent for its teachers during those months, so far they have been unable to do so. If the rent was lower and they were able to take a few trips "outside," they would like to stay in Igiugig year-round.

Besides trying to get good teachers for their school from the outside, Igiugig also hopes to educate their own teachers. Tanya Salmon is currently in the process of finishing her teaching degree and in the summer of 2011 she became the teacher of the pre-school, which holds two students at the moment. April Hostetter's experience as a high school student in rural Alaska has made her want to help other rural students since, as she says, rural students are "way different" than students from urban areas. Being from a rural community herself she feels like she might be able to help rural students figure out what they want to do and how to obtain it. The counselor she had from the Lake and Peninsula School District helped her figure out what she wanted to do and what colleges and scholarships to apply for. Wanting to help rural youth is what made her choose to study psychology at UAF. Talking to April at a later occasion she had decided to take a break from college and move back from Fairbanks to Igiugig to figure out what she wanted to do. She is currently planning on returning to college in the fall semester of 2012.

Some of the youth in Igiugig do not consider high school or college a necessity for succeeding in rural Alaska. Quite on the contrary, Gordon Hester looks back at his years in high school as something he largely could have done without.

GORDON HESTER: High school can't teach you how to live in Alaska, I mean all they're throwing in front of you is papers and names of dead people, it doesn't teach you how to live. They throw a bunch of nonsense at you. I thought I needed all that stuff when I was in high school but after I left and went to actually work at a real job, you never use none of that stuff that they try to teach you, or stuff your mind with. You might as well teach them how to add and subtract and send them on their way. After that everything's just a cakewalk, I mean, you need training and everything for it but you don't need that high school diploma to make that training available, I mean it's already there; it's just there. (Gordon Hester 2011, 5:03)

Gordon dropped out of high school when he was sixteen and moved from his home village to King Salmon to work on a rig. Making over \$20,000 in half a year, he figured it was better worth his time than going back to school. He has never regretted not graduating and thinks that the general attitudes towards high school ought to change. More so than history and philosophy, Gordon thinks qualities such as general survival skills and work ethics are necessities for young people in rural Alaska. Speaking specifically about the nature of learning, Gordon says that, "instead of being taught on a piece of paper it's better to just being shown, you know" (Gordon Hester 2011, 11:00). Gordon's high school experience has been different from April's. Some of the difference might stem from the fact that they lived in different communities and went to different high schools and it is possible that April's experience of competent teachers and community support was absent in Gordon's high school years. However, it does raise an important question of the value of high school and secondary education. As mentioned in Seyfrit et al.'s (1998) study discussed above, college can be a step towards leaving one's home community for good, since employment relevant to one's education can be hard to locate in a rural community.

This issue of "over-qualification" was identified at the National Science Foundation conference in 1999 as a major concern. "Students are taught that obtaining a formal educational credential (such as a degree or certificate) is the measure of academic success and that obtaining a credential is both a necessary and sufficient basis for success in the labor market (...) However, for many rural youth, this assumption is highly questionable" (Shaffer and Seyfrit 2000, 12). This is likely to end up in a mismatch situation where the expectations and qualifications of the youth do not match the needs and reality of their home communities. The harsh and to the point speech given by John Schaeffer at a NANA Regional Corporation village meeting in 1981 addresses another aspect of this issue:

When we do get some [Inupiaq] graduates with degrees we can't trust them to run our company for you [NANA shareholders] because they don't think right. They don't think like Inupiaq. They don't look at things like an Inupiaq. When the few of them that do get through college come back we have to train them over again because they just think like Nalaugmiut [non-Native people] and we won't give a Nalaugmiut a chance to run this company because we've got things too important for us to sell, and basically in a business that's what they do. They sell whatever they've got. Everything's for sale. Well in our corporation our land is not for sale! We can't have people who think they can sell our land running our company. So our young people who go through college, get done and come back thinking like Nalaugmiut, they're no good to us. They're wasted. (Schaeffer and Christensen 2010, 63)

However, this challenge does not necessarily mean that Alaska Native students should not go to high school or college. In Alaska, a lot of time and effort has been put into creating a so-called "Native curriculum" through initiatives such as the Native Studies Curriculum Development (NSCD) project. According to project director for the NSCD project and former Inupiaq teacher, Paul Ongtooguk (2010), there is a great need for such a curriculum for several reasons. He argues that the absence of Alaska Native perspectives on history and contemporary issues made it difficult for young people in his generation to see any role for them to play in society. Also, the predominantly non-Native teachers' use of the words "they" and "them" when referring to Alaska Natives made the children view this cultural group, of which they were a part, as something different from themselves. Ongtooguk also describes a general lack of support from the teachers during his high school years:

As recently as the mid-1970s, the teachers and counselors at my high school in Nome had quite different expectations about the future of white students and of Alaska Native students. In a certain sense, they didn't need to worry much about the future of Native students. (...) Teachers and counselors generally assumed that we were all best suited for vocational-technical programs – programs that trained us to be secretaries, carpenters, heavy-equipment operators – rather than for college. The only direct counseling I received was to take the military vocational aptitude test, or to become a truck driver. (Ongtooguk 2010, 237)

A Native curriculum, he argues, should not only focus on learning about the past but on discovering the role of Alaska Natives in the present and the future. Whereas the Alaska Native material culture is of importance and there should be room for this in a Native curriculum, he suggests “shifting the emphasis from arts and crafts to readings, discussions, and investigations about Inupiat culture and history – from the Inupiat perspective as well as other perspectives” (Ongtooguk 2010, 238). Rather than dismissing formal education as irrelevant for a life in rural Alaska, the curriculum needs to be shaped in such a way as to become relevant. A 1995 Education Task Force report from the Alaska Native Commission and the Alaska Federation of Natives concluded that:

Children are the most important segment of any community, for each community’s future lies in its children. To assure that future, the children must be given, through education, the skills that will enable them to succeed in life and the understanding that will continue the community’s values. For Alaska Native children, this means that they must receive an integrated education that encompasses two sets of skills and two sets of values. The first set of skills is that necessary for the children to succeed in traditional Native lifeways. The second set of skills is that necessary for the children to succeed in Western society. The children’s education must also integrate Native and Western values so that they are empowered in both cultures. The skills and values are inseparable, for mastery of one cannot be obtained without mastery of the other. (Education Task Force 2010, 23)

The study also concludes, however, that a “perfect” formal educational system following the above guidelines will not be enough to enable Alaska Native youth to succeed in contemporary society. The whole community, it is argued, will have to support the youth in their efforts by creating a good learning environment, much like April’s experience during her secondary and high school years in Igiugig. Other observers question whether or not the values and knowledge connected to the traditional Native lifeways can be taught in a school setting, or if this is something that can only be conveyed through time spend engaged in such activities with Elders. Former teacher in rural Alaska, Gary Holthaus (2008), argues that:

In school, dance becomes dance only – a replaceable fragment. If a song is only a song, it can be taught in school, but if a song is the culmination of making tools, of hunting, of cold and endurance, of disappointment and triumph, of going out and returning, of feeding the people, and of expressing what all feel – if it is a

community's life – then it cannot be taught except in that context. (Holthaus 2008, 79)

Holthaus presents a thought-provoking criticism of formal education in rural Alaska and argues that it is in danger of undermining the continuation of Alaska Native cultures. However, it is up to each individual community to find the balance between “traditional” and “modern” activities, such as time spent on the land and time spent in the classroom. Igiugig's focus on formal education seems to indicate that, while the village might agree with Holthaus point of view in theory, the reality of life in rural Alaska is such that the benefits of a formal education may outweigh the possible “costs.” Out of the twenty-six Igiugig residents participating in the Bristol Bay Regional Vision survey in 2010, 33 percent said that skills needed for success in college or vocational schools were most important in their children's schooling. Understanding Yup'ik traditions and “learning how to live in rural Alaska,” however, was also of importance to many of the participants (Bristol Bay Regional Vision 2010a, 17). The village does make a conscious effort to influence school politics and curriculum development. At the Bristol Bay Regional Vision survey the year after, in 2011, more than half of the nineteen Igiugig residents that participated stated that the best way to create a good school is to communicate values and priorities to the school (Bristol Bay Regional Vision 2011a, 14). The village makes sure to have an Igiugig resident on the Lake and Peninsula School District School Board at all times, both to keep an eye on what the district is doing and to get an idea of how the Igiugig School is doing in comparison to other schools in the district. Igiugig's focus on education has a positive affect not only on the experience of the students but also on their results. For several years, the retention and graduation rate of Igiugig School has ranked among the highest in the Lake and Peninsula School District.

5.2.2 The Focus on Youth

In Igiugig, education of any kind is highly valued. This focus on and support for education is to a large extent an expression of a general focus on the youth in the community. This is continuously articulated in the interviews with the youth as well as other community members, and it is clear that it is not an implicit focus but very much an explicitly articulated priority of the community. Focus on the youth is especially a central theme in the interviews with AlexAnna Salmon.

ALEXANNA SALMON: My mother's generation of folks they all left or wanted to leave the community. One of them was they had to attend high school elsewhere and they liked what they saw in cities. They all were influenced or under the influence of alcohol at one point in their lifetime and there were not a lot of opportunities locally for them. (...) But what's happening now, my class or my age group is the first generation to really be enthusiastic about living in Igiugig and part of that is our Elders and our older people have always focused on youth in my community, everything is about the youth. Whatever the Elders had they've been very conservative [in terms of saving money, saving the land, and building self-government], they've saved up this wealth for the youth to decide, recognizing that the youth are the ones getting educated and knowing how these things work. And so for me there's a lot of opportunity at home now and we've finally got housing done so we have our young people living in established housing and actually having families committed to the community. (AlexAnna Salmon 2010, 0:25)

According to AlexAnna, her generation's enthusiasm about Igiugig can largely be accredited to the adults and Elders and their ability to accommodate the youth and accept them as the future of the community. With the changing social and economic environment, the village recognizes that the youth will not automatically stay or return but have to be enticed to do so. This enticement, however, is not high payrolls or effortless living. Rather, it is a good place to live, a satisfying job, and a say in how things are run – crowned, of course, by a connection to the place and the people. Although the happiness and health of the youth is an aim in itself, it is intrinsically linked to the benefits for the community. Secondary education, for instance, is not only favored by the community because of its benefits for the individuals but also because of its possible positive effect on the outlook of the youth and how this might affect the community. Out of the twenty-six residents participating in the Bristol Bay Regional Vision survey in 2010, 30.4 percent stated that they hoped for their children and grandchildren to go “outside” and live somewhere else before coming back to Igiugig (Bristol Bay Regional Vision 2010a, 11). Speaking about the benefits for the individual as well as the community, AlexAnna says:

ALEXANNA SALMON: For every kid, I think, college was the best experience ever. Just to get away, find a new network that you can maybe tap into while you're at home. Experience the world and then you will really realize what you have at home. Like, what we have at home you can't get anywhere else, and until you get out you're

not gonna appreciate it. So we really encourage it in Igiugig, traveling and internships and things like that, but ultimately we want you back. (AlexAnna Salmon 2010, 33:26)

This latter part of AlexAnna's statement is really the crux of the matter: educating its youth is an investment for the community. With every happy and excited farewell upon a young person's departure for college there is the implicit expectation that this young individual will and must return. In the introduction to her bachelor thesis from Dartmouth, AlexAnna tells how she left Igiugig with the words of one of her Elders in the back of her mind: "Please come back and help our village" (Salmon 2008, 25). In another quote AlexAnna speaks about the importance of the village to be able to accommodate its youth if they decide to return to the village after graduation or training completion:

IRMELIN GRAM-HANSEN: Would you recommend that kids go to college?

ALEXANNA SALMON: Oh yeah, and college or secondary education or even an internship or work somewhere else or work for other people, see what's out there, travel the world, do what you need to do and just remember that you won't get this anywhere else in the world. And then if it's an attractive place then come back and settle here and we will try and accommodate you, we're not gonna make it difficult to come and settle back here. Like, these HUD homes that we all live in, if you noticed five out of six houses were given to people thirty and under and in other villages that will not happen because, "you're young, you can figure something out, we're gonna make a house for maybe someone who's older," or whatever else and in this community it was recognized that if we want our young people to live here we need to provide the house that they're gonna wanna live in and that they can afford. And so that's how this came about in Igiugig. The kind of mentality we need to keep is, "what do we need for the young people to want to come back?" Maybe they won't want to and that's something we have no control over and we're not gonna try to even control, but we can try to make their experience here the best one possible. (AlexAnna Salmon 2011a, 41:47)

AlexAnna recognizes that the village is largely unable to dictate the future for any of its youth. The problems of youth outmigration in rural communities cannot be solved in any one way, since the reasons for going or staying varies from individual to individual. However, the village of Igiugig is determined to give its youth the best circumstances possible – within their means. The strong focus on the youth is exemplified by AlexAnna's

question, “what do we need for the young people to want to come back?” This question is guiding many of the village’s decisions regarding community development projects. Another aspect of the focus on youth is a general openness to the ideas and the needs of the youth, for instance through involving them in the articulation of community values and goals. AlexAnna was a high school student when involved in developing Igiugig’s Strategic Plan. Speaking specifically about the contributions of the youth in developing this plan, AlexAnna says:

ALEXANNA SALMON: It was our opportunity to let our Elders and our parents and whom ever know what we wanted in the community, “this is what we want to see, so maybe you should be working towards that! And we’ll come back and take over!” So we’re all involved in the planning and that’s what needs to happen in other communities. I would not be putting forward all this effort and passion and love for my village if they never focused on youth to begin with. Because, you keep that in your mind the whole time you’re at school or where ever, thinking, “they’re counting on me! They’re waiting on it.” And in other communities it’s like you come home and, “you better prove yourself and you better stick it out, show us, and maybe someday you’ll sit on a board, or maybe you’ll become the administrator.” It’s frustrating. (AlexAnna Salmon 2010, 23:23)

In Igiugig the youth have taken part in articulating community values and goals and thereby their ideas and needs have been incorporated into the very foundation of the community. The inclusion of youth in every aspect of village life makes it easier for the young people to engage themselves in running the village and thereby devote their time and energy into making the community a better place to live. Another way that the village includes its youth as equal partners in decision-making processes is by making sure that they receive village corporation shares. Because of the way ANCSA was set up, Alaska Natives born after 1971 do not automatically receive shares of their village corporation. It is up to the parents to give some of their shares to the children. In Igiugig it has started a trend where parents and grandparents divide their shares among their children and grandchildren. This is another way of including the youth since this process turns them into legal owners of village lands.

AlexAnna knows of other rural Alaskan communities where tribal politics and power struggles make it difficult for young people to come back and make a difference or to fulfill their personal aspirations. It can especially be problematic to return if you cannot find

a job since most college graduates are in debt to some extent. According to AlexAnna, a college degree does not translate well in rural Alaska because most jobs are experience-based and local connections and family relations can mean more than educational level. For those reasons it can be hard to break into the circle of community leaders as a young newly educated person, especially if you have been gone from the village for an extended amount of time. Another aspect of this issue is the affects returning youth have on the social dynamics of a village. Although she never felt any distrust from her family and friends, AlexAnna is aware that returning home with a degree can create discomfort among other people in the community (AlexAnna Salmon 2011a). This is not an issue that is widely discussed in academia or in the general discourse about higher education in Alaska. However, there are people who are voicing their frustration. Sharing her thoughts and experiences on her blog, Point Hope-born artist Nasugraq Rainey Hopson spent seven years outside of Alaska as part of her education. Returning to her village proved to be more difficult than she had thought, both for herself and for her fellow villagers:

For one thing people looked at me differently. They were wary. My family and friends that I grew up with and loved looked at me as if I was a two headed sloth, and none of them knew what a sloth was. Some turned and rolled their eyes. Some ignored me completely, their backs turned in rejection. Most took some time to get to know me again. They sat and marveled at how much coffee I drank. Afraid of this grown woman that came back, but willing to take the chance that there was something of the little Point Hope girl left inside of me. For another thing I think people have this misplaced conception that now that I am educated then I "must" think villagers and village life is abhorrent and disgusting. That I have returned to make them feel bad about themselves, about their world, MY world, about the clothes they wear or the words they use. That any sane educated person would look upon the Native Life in disdain. What interesting things we learn from interesting places.....(...) You are raised with people asking you to leave and become educated. That it's sorely needed. That it is the only way your culture will survive. Yet they fail to tell you the price you will pay. And no one asks you if you are willing to pay it. It comes as no surprise that most people who leave the village and get an education successfullynever return. (Hopson 2010)

This quote indicates that the challenge of returning home after college is not only about finding a satisfying job, but is also about easing back into village life and finding a

common ground with one's family and fellow residents. The low percentage of youth that return to their home villages after they finish their education indicates that this process is problematic. There is a lack of research done on this subject, however, and it is hard to say how such issues affect returning youth. As expressed by AlexAnna, the village of Igiugig tries to make this process as smooth as possible for its returning youth. Speaking both to the relatively high numbers of college graduates living in Igiugig and the community's efforts to accommodate its youth, AlexAnna tells of an experience she had recently with a state employee. Commenting on the many informed questions coming from the crowd of Igiugig residents at his water tutorial, the state employee said, "You might be the most educated group that I've had." Reflecting on his comment, AlexAnna concludes, "They're just not use to encountering that in the villages because a lot of their educated people leave or work... Maybe because they didn't have that opportunity as a young person to step in" (AlexAnna Salmon 2011b(II) 3:05).

In Igiugig, efforts to accommodate the youth do not begin when they return to the village from college or training. Even from before they are able to work for the village the youth are given opportunities to volunteer and help with community projects. Once able to work for wages, the youth are given work, either with various odds and ends or by doing an internship with one of the community's different project areas. The community's environmental program is an example of how such an internship can work and how it can have long lasting benefits for the young person as well as the village. When Christina Salmon was in high school in Igiugig she was the intern for the environmental program and after returning to Igiugig with half a bachelors degree in journalism she became the director of the program. When Sheryl Wassillie attended Igiugig School she was Christina's intern and later decided to get a degree in environmental studies. She moved back to Igiugig for a while during 2012 and helped with the environmental program, putting her degree to use in her community.

Regardless of whether or not the job description is something the young person would like to work with later on in his or her life, the ability to work while still in school is something the youth greatly appreciate. The two youngest of the youth interviewed, Dan Decker Jr. and Lukas Zackar, both work for the village and mention this as one of the best aspects of living in the community. Gordon Hester, who worked on a rig in King Salmon until recently when he was injured, also greatly appreciates the availability of work in Igiugig. "That's what I like about this place is I can sit back and relax and recuperate and still have a

job to go to whenever I want it, I mean, it doesn't matter what time of the day, I can go up there (...) It doesn't matter what kind of work there is, they'll find something for me to do everyday" (Gordon Hester 2011, 11:20).

Having the youth participate in the day-to-day running of the village is nothing new. Igiugig resident, Martha Crow, tells about how she and her peers were given responsibilities growing up and how it has a general good impact on the youth and their relationship to the community.

MARTHA CROW: Igiugig is unusual in that ever since we were kids growing up all the parents were involved with what we did, but also they gave responsibilities to the young people right away. Like my sister Julie and my sister Anicia and Jacko and Timmy (...) they were running the corporation and council when they were younger too and then now the Salmon girls run a lot of things. But, it all comes right down to Igiugig is willing to, you know, have young people in working right away. (...) I think when you give the young people that sense of responsibility then they feel obligated to be responsible. Then if you don't give them any responsibilities because you're thinking of your own self or (...) thinking they can't do it then they won't do it. But if you tell them they can do it, they can do it. (Martha Crow 2011, 7:30)

According to Martha, a feeling of belonging to the community can be instilled in the youth by giving them responsibilities and showing them that their efforts are valuable to the community. Whereas more youth seem to be engaged in the community now than ever before, the village has always focused on its youth and it seems to be an incorporated aspect of the culture of Igiugig. One problem with aspiring to secure employment for the youth, however, is that some are only in Igiugig seasonally. The youth that go to college or are away on training come back in the summer months and are able to take on projects but the Igiugig Village Council cannot set up a direction for a project on the assumption that the youth will be there to see it through. Hiring a full time project manager is not a favorable solution either, however, since the young people will have less of an opportunity to come back and work over the summer. This situation results in the small Igiugig administration taking on more projects than they have time for. One problem mentioned by AlexAnna is that she oversees every step of nearly all village projects, from surveying the community to closing up and evaluating programs and projects. Being the administrator, she would prefer to delegate these types of jobs to other people and be able to focus on the overall

community goals (AlexAnna Salmon 2011a). This is another aspect of what AlexAnna refers to as the community's workforce problem.

The active attempt to find room for the youth and their ideas also extends to employment after they graduate from high school or college or return from training. According to AlexAnna, there is hardly any idea for a business that would be unwelcomed by the village, from opening up an internet café for residents and sport fishing tourists to opening up a shop for boat repairs (AlexAnna Salmon 2011a). The Igiugig Village Council has funds set aside for business projects and in exchange of a solid business plan the village has in the past given out small loans to Igiugig residents. For those residents interested in gaining more skills and improving their résumé, there is a long list of various training possibilities offered by the state. Jonathan Salmon has a degree in business financing from Carroll College and he thinks that he might start a business in Igiugig at some point. Although Jonathan argues that having a profitable business outside of the village would still benefit the village through various processes, setting up a business in Igiugig might be more beneficial for the village and for him as a business owner. "I think it'd be easier, like, just being an [Igiugig-based] business that aids the community because then you have the support and people there to help you out and that local connection already" (Jonathan Salmon 2011, 19:30) Jonathan sees possibilities in Igiugig because of the village's willingness and ability to accommodate young entrepreneurs like himself. Besides helping to accommodate the aspirations of the youth, a broad economic base and a skilled labor force is also of great value to Igiugig because of the positive impact economic diversity can have on the adaptability and strength of the village. According to Elder Annie Wilson, the ability of the village to secure work for its residents benefits everyone and strengthens the feeling of community.

ANNIE WILSON: After, when the kids go (...) out and go college, they come back and go to work. This village has always, you know, wanting people to work. I never heard about anybody being on welfare or anything, everybody always do something at the Village Council. You know, a couple of hours there and a couple of hours. It's always work-orientated here and, like I said, this is a small village, everybody try to help everybody. (Annie and Georgie Wilson 2011(I), 15:04)

People do not only work to secure their own income but also to make the community run and to help each other with various projects and the chores of everyday life.

This seems to be a part of what could be referred to as the culture of Igiugig. This notion will be discussed further in chapter 6 Discussion and Conclusions.

5.2.3 Summary of Key Points

The high percentage of residents that have gone to college, done various training, and worked outside the community contributes to the overall strength of Igiugig. This is related to the concepts of entitlement, diversity, and resilience from the framework for vulnerability analysis. Besides learning skills or a trade, the community members that spend time “outside” also learn about different ways of living and meet people with access to different kinds of resources than themselves. Through educating its residents, Igiugig expands its network of resources to draw on and stays connected to what goes on “outside” that might be of use to the community. Being connected to outside resources and working on growing their own resources, the village stands stronger when it comes to financial or legal matters. The diversity of skills and experiences among village residents supports an equally diverse pool of possible responses to change that the village can utilize. This enhances the village’s ability to respond to change in a way that is best suited for the general sustainability of the community. Overall, it is viewed as a great resource to have people coming and going, continually developing their own possibilities, and thereby the possibilities of the village as well.

Of course, exposure to the outside through education or work can also lead to increased village outmigration, especially among the youth, since it can be hard for a community of sixty-six people to offer jobs in whatever specific field a young person has educated her or himself in. It is a general concern in rural Alaska that formal education is driving Alaska Native youth away from their home communities and into the bigger cities due to issues of “over qualification” and a mismatch between this type of education and the context of life in rural Alaska. In Igiugig they try to solve this problem by elevating the needs of the youth to the top priority of the community. This general focus on the youth includes providing jobs and housing as well as being open to the ideas of the youth and including them in all decision-making processes, thus giving them a voice in the sustainability debate. These efforts begin long before the youth return from time spent “outside” and include student jobs, internships, and job shadowing programs. The focus on the youth is key in trying to develop a feeling of belonging in the youth. According to many of the youth interviewed, being included and being able to take an active part in forming the future of Igiugig is part of what has made them want to stay or return and help make their

community become even better. How increasing diversity and accommodating the youth is connected to a general openness to change is addressed in the following theme.

5.3 Economy and the Openness to Change

5.3.1 Economy

The ability to accommodate the youth necessitates a general openness to change. Every new generation, however willing to follow in the footsteps of their Elders and ancestors, will bring about change. In a social context where life and cultural identity has changed so dramatically and rapidly as among the Indigenous peoples in Alaska, this is especially so. An Anchorage Daily News article covering the Alaska Federation of Natives convention in Fairbanks in 2010 had this report:

The keynote speaker, Gloria O'Neill, said Alaska Natives have survived disease, displacement, discriminatory policies and life in a demanding physical environment. O'Neill said she senses public leaders are poised to tackle another challenge: education. People who thrive, she said in an interview, are those that both stay in touch with their respective cultures while adapting to succeed in contemporary economies. 'We've really got to invest in our young people,' she said. (Anchorage Daily News 2010)

Creating jobs and investing in the youth is certainly on the agenda in Alaskan villages but how can this be done? As the quote indicates, this is about the intersection of education, economy and the youth and it is about being open to change while maintaining and strengthening ties to what was before – and still is. The quote above mirrors a general discourse about integrating the youth successfully into the job market. However, an equally common subject and one of the major concerns in rural Alaska is the lack of employment opportunities in the villages. As of April 2012, southwest Alaska was the region in the state with the highest unemployment rate with 13.8 percent compared to 6.3 percent in the Anchorage/Matanuska-Susitna Valley region. The Lake and Peninsula Borough has an unemployment rate of 10 percent compared to a state average of 7.3 percent (Department of Labor and Workforce Development 2012). According to the nonpartisan think-tank, Economic Policy Institute, unemployment rates for Alaska Natives were as high as 21.3 percent in 2010 (Austin 2010).

Employment is another area where Igiugig is an unusual community. As discussed in relation to population, Igiugig's problem is not lack of employment but lack of employees. The community has been able to create a rather diverse economic base with community and individual income coming from a variety of sources. The Igiugig Native Corporation (INC), who is the for-profit land management and village financing entity, earns most of its income from land use fees from sport fishing lodges in the area that come and go using the Igiugig airstrip. Although the relationship with the lodges is not always without tension, they make up a significant amount of the village's income through the consumption of various goods and services throughout the summer. Due to the lodges, Igiugig's rather extensive infrastructure is self-sustaining. If the infrastructure only served the residents it would not be a profitable business. The Igiugig Bulk Fuel Farm is one such infrastructure, providing fuel for all residents and most of the lodges. The sustainability of Igiugig's barge business is similarly related to the business that the lodges provide.

Many of the youth interviewed said that they appreciate the sport fishers and the new life they bring to the community every summer. Several of the youth have also been employed by the lodges as maids and cooks. However, having four lodges located in the near vicinity of the village, some of which welcome thirty visitors a week, is a challenge. This is both due to the time spend collecting fees and making sure the visitors comply with village rules (something not all the lodges are equally willing to do voluntarily), and due to the fact that every summer, no matter where you look, there is someone on the river. All in all, twenty-four commercial outfitters use the Kvichak River in the summertime. Elders Annie and Georgie Wilson, whose house sits right on the riverbank, say it looks more like a highway than a river during the summer. Also, Elders Dallia and Mike Andrew connect the lower levels of fish to the increase in sport fishers in the area. The Igiugig Village Corporation, who owns and manages village lands, tries to ensure that the nearby lodges follow the values of the village. One such attempt is a river etiquette course for outside employees hired by the lodges to learn about the village, the people, and their values. If the lodges do not wish to participate their land-use fee is \$250 more expensive. The choice to welcome the sport fishing industry by allowing the outfitters to utilize village lands is an example of a trade-off scenario where the village has determined that the benefits outweigh the costs. Sport fishing is controversial in Alaskan villages, especially because of the potential clash in values between the tourists and village residents. In Igiugig they have had their share of conflict, including cases of illegal and wasteful hunting, outfitters that refuse

to pay land-use fees, and most recently a legal dispute about the use of public and private trails. AlexAnna Salmon explains:

ALEXANNA SALMON: But it usually quickly resolves itself because it's very difficult to run an operation without the support of the community, at least the way things are set up here in Igiugig, so it's definitely in people's best interest to cooperate with the community and I think lodges are so used to not having to and that's one thing Igiugig did differently is, "we don't care if you're on private property over there, some way or another you're gonna be involving yourself over here and so you need to live with the rules that we want." If you go to other places, and the lodges might be more outlying, but they kind of feel like they own that piece of the world and that they're gonna do what they want there and that's the mentality we've tried to keep away from here because the way we feel is that this is our home land and just because the land got settled the way it is (...) and the rivers might be public but we still drink this water and so we're not gonna let you just do what you want to do. (AlexAnna Salmon 2011a, 1:13:26)

Although Igiugig has opened up their tribal lands for sport fishing lodges, they are determined to form this relationship in a way that is beneficial for the village. Igiugig residents, and especially the youth that are in their mid-to-late twenties, are very focused on tribal sovereignty – something the relationship between the village and the lodges is an explicit example of. By asserting their tribal sovereignty the village's relationship with the lodges has largely become a strength rather than a weakness. One way in which the village is trying to develop the relationship between its residents and the lodges is by participating in the Fly Fishing Academy. The project is initiated by Trout Unlimited and aims at teaching young village residents to fly fish. The goal is to integrate the sport fishing industry into the local economies. In the fall of 2012, fifteen students from around Bristol Bay will spend a week in King Salmon as part of this program. The project was suppose to be in Igiugig, but because of the chance of ice in the Kvichak River the organizers chose to move it to King Salmon.

The income of Igiugig residents mainly comes from employment through the Igiugig Village Council (IVC), who is the governing entity in Igiugig. These jobs include operating heavy equipment, managing finances, repairing machinery, cleaning facilities, and working on various odds and ends. The IVC owns an 8(a) contracting company, Iliamna Lake Contractors (ILC), founded in 1998, which employs several of the residents and a few

outsiders on a project basis as well as one full time manager position. The Village Council recently founded another 8(a) company, Iliaska Environmental, which specializes in environmental assessment, oversight, and construction. The Small Business Administration's 8(a) program, established in 1970, is aimed at aiding socially and economically disadvantaged individuals by giving them certain privileges in regards to running a business. As of 1992, Alaska Native Corporations (ANC) were recognized as socially and economically disadvantaged and were thus eligible to participate in the 8(a) program (Haley et al. 2009, 6). The unique rights that ANC companies have under the 8(a) program gives federal agencies and federal contractors strong incentives to sign contracts with these companies. Differently from other 8(a) companies, 8(a) companies owned by ANCs can receive sole source contracts regardless of the dollar amount (Alaska Native Contracting). ANCs benefit from their ability to participate in the 8(a) program and according to a report from 2009, "Alaska Native Corporations are using their 8(a) Congressional authorization to assist their responsibility to help provide jobs, dividends, scholarships, cultural preservation and protect subsistence resources and lifestyles" (Haley et al. 2009, 16-17).

In Igiugig, the 8(a) company Iliamna Lake Contractors has employed village residents and improved village infrastructure for more than ten years and it is clear that this has helped the village economy greatly. Besides the jobs that the two 8(a) companies provide, the village has several administrative positions that relate to the general administration of village projects, writing grants and proposals, and managing the environmental department. The Salmon family owns a barging company that also employs a few individuals and makes the transportation of fuel and various other goods less expensive for residents, the Village Council, and some of the lodges.

Of the personal income that does not come from IVC, commercial fishing used to be significant but in recent years this type of occupation has become less common in Igiugig. Currently four Igiugig residents hold commercial fishing permits. The main reason for the decline in commercial fishermen is the insecure nature of fishing and the need for huge capital input. A few families went commercial fishing in the summer of 2011 but it was not a very good year for them, even with prices relatively high. Besides commercial fishing, a few individuals work outside of Igiugig in King Salmon, Iliamna, Homer, or Anchorage on a seasonal or rotational basis. On top of money earned through employment, Igiugig residents are eligible for the Alaska Permanent Fund Dividend, which in 2011 was a net sum of \$1,174

(Permanent Fund Dividend Division 2011). INC also gives out a dividend every year but has generally been rather conservative with its money in past years. The dividend in 2011 was the highest in INC's history: \$7 a share. INC has a total number of 38,000 shares (Igiugig Native Corporation Meeting 2011). Furthermore, a handful of people in Igiugig receive unemployment, retirement, and social security.

For all of the village's construction and upgrade projects IVC receives grants from private, state, and federal sources on a project-to-project basis. This income comes with a lot of paperwork, which is taxing on the village administration, but overall the village has benefited greatly from these grants. Road and house construction, a new landfill, and a power plant upgrade are just some of the projects that state and federal grants have helped facilitate. Overall, AlexAnna Salmon estimates that 90 percent of the village's infrastructure construction has been grant funded (AlexAnna Salmon 2011b(I)). Because of the small population size, the infrastructure facilities would not generate enough revenue to pay off the loans the village would have to take in order to build these facilities from pocket. Most of the village's capital is locked in infrastructure. The list of village-owned infrastructure includes the hangar, new and old health clinics, propane facility, landfill, water and sewer facility, fire station, bulk fuel farm, and roads, as well as various heavy equipment, such as dump trucks, flexi floats (for barging), trailers, trucks, pickups, bulldozers, fuel tankers, and a landing craft (in King Salmon). According to Village Council calculations, Igiugig is worth around \$10.5 million in financial assets (AlexAnna Salmon 2011b(II)). The dollar-value of these assets is dependent on the maintenance of them. Lack of proper maintenance and operation of infrastructure is a general problem in many rural Alaskan villages, often caused by the lack of funding or skilled labor. In Igiugig they set a slightly higher price for their infrastructure services to secure that funds go to a designated repair and replacement fund and an operation and maintenance fund. This, AlexAnna argues, is a key to economic sustainability in the village. She explains:

ALEXANNA SALMON: Okay, out of our bulk fuel farm, say it actually depreciates or needs total replacement before we've actually sold enough fuel to pay for it. At least we have that fund that says, "they have a \$100,000 to rebuild their fuel farm, that's more than other communities have." Then you find grant opportunities to match it. So that's why, you know, that's important. And that's partly why we had so many projects going on is that we had funding secured for it. It's rare, too, in rural Alaska

that communities are willing to put forth that much on their own in infrastructure.
(AlexAnna Salmon 2011b(II), 13:02)

Although the village depends on grants to fund projects and upgrades, IVC makes a conscious effort to reduce this dependency as much as possible by securing its own funds. Even if the village will never be able to fund such projects entirely on their own, this effort makes them more resilient to possible future changes in funding. Also, as AlexAnna's quote indicates, having considerable village funds go towards projects makes these projects look like more attractive investments in the eyes of funding agencies. The village has worked on a lot of construction and upgrading projects during the past years and the plan is to slow down such projects in the future and focus on other aspects of community development, such as cultural activities. With a bachelor's degree in anthropology and Native American studies, cultural projects are what AlexAnna is really passionate about, but the day-to-day running of the village makes such "extra" projects hard to find time for.

The infrastructure of Igiugig extends beyond the physical boundaries of the village. Most people have family members in other villages in the lake area as well as Anchorage and Fairbanks. The Salmon family owns a house in Anchorage where they and family and friends can stay when they make a trip to the city for work, medical reasons or for shopping and socializing. The Igiugig airstrip sees weekly flights to and from Anchorage, King Salmon, and Dillingham. Three flights are scheduled weekly but other flights land in the village on demand. Several airlines serve the Iliamna Lake villages but Anchorage-based Dena'ina Air Taxi is most commonly used by Igiugig residents and the lodges in the area. The owner of the company, Josh Jacko, is from the lake area himself and he knows the people in Igiugig well. When Josh wanted to upgrade his business by purchasing a bigger airplane, INC lent him money to buy a King Air airplane that can hold more people and cargo. Supporting Dena'ina Air Taxi in this way has both improved Igiugig's mobility and created a good relation between themselves and the business, and Josh's air taxi is a significant asset to the community.

Igiugig's economy is relatively diverse. The establishment of two businesses (ILC and Iliaska Environmental) has proved very beneficial for the village as well as its inhabitants. ILC has contributed to the upgrade and development of the village's infrastructure and given the village an income source that is relatively independent from state and federal funding (relative because a lot of projects outside of the village are commissioned by the state; such as the demolishing of a military compound on Big

Mountain outside of Igiugig). The diverse economy of Igiugig reflects a diverse population with a wide variety of skills. The village's ability to take advantage of this diversity without creating internal competition is part of their economic stability. Speaking about Igiugig's economic strategy, AlexAnna Salmon says, "So, that's the way we are trying to set up our community, that if one limb got cut off or experienced something devastating we would pick up with what else we have. We have a diverse economy, that's why, we've diversified as much as we can" (AlexAnna Salmon 2011a, 1:09:43-1:10:09). Speaking specifically about the possibility of future changes in federal Indian policy and funding, she continues:

ALEXANNA SALMON: Everything [federal policy and funding] has swung so drastically that our idea here is to build our own self-sustaining economy so that if things were cut off then we would be okay and if we had to go back to the times when you're volunteering your work for the tribal government and kind of de-centralizing (...) we will be okay. So, we would just really downsize probably but we would still continue to exist and we would probably still thrive. (AlexAnna Salmon 2011a, 1:15:30)

Most village economies in rural Alaska consist largely of federal and state funding. In 2003 the federal government spent \$878 million on Alaskan villages, of which 602 million were in grants (Goldsmith 2007, 17). Overall, the state of Alaska is the state within the United States that receives most federal funding. In 2010 Alaska received \$12 billion in federal funds, largely in military procurement contracts but also for social services such as medical assistance programs and Indian housing block grants. It is likely that federal funding will decrease in the future due to the changing national economic climate. Likewise, it is likely that Alaska's own revenues will decline in the future due to the decline in natural resources, such as oil (Knapp 2012, 15-17). This will undoubtedly affect the economy of Alaskan villages. Ironically, the unstable nature of state and federal funding is in danger of increasing the vulnerability of the same communities that this funding is meant to help sustain. Being largely dependent on grants, dividends, and other subsidies, most villages would not be able to run if funding was cut severely or removed all together. In a changing economic environment it is uncertain what federal and state funding will look like in the future. This further stresses the importance of self-reliance of Alaskan communities so as to enable them to secure their local economies and thereby enhance their sustainability. When enhancing economic sovereignty by developing a local economy, the village is able to

simultaneously enhance their political sovereignty, since they are less affected by changes in the political and economic systems around them.

Igiugig's economy was not formerly as diversified as it is today. Up until the early 1990s Igiugig residents were largely involved in the commercial fishery. When fish prices dropped and the amount of capital input required for a boat rose, many people in Igiugig had to give up fishing. AlexAnna says, "We learned what being dependent on one source of income can result in." (AlexAnna Salmon 2012, private conversation) For Igiugig residents it resulted in some financially difficult years. Since 1992 the Western Alaska Community Development Association (WACDA) has been running a program aimed at helping western Alaskan villages participate in the Bering Sea/Aleutian Islands fisheries. The Community Development Quota (CDQ) entity for the Bristol Bay area is the Bristol Bay Economic Development Corporation (BBEDC). Besides offering training and scholarships, the BBEDC has a Permit Loan Program that helps residents in Bristol Bay communities purchase limited entry permits (BBEDC 2012). However, a criteria for villages to participate in this program is that they are "located within 50 nautical miles of the Bering Sea coast" (WACDA 2012). Igiugig is just outside this geographic border. Therefore, even though Igiugig is a fishing community and its residents have been depended on this fishery for their income, the village is not eligible to participate in the BBEDC programs. This has resulted in a further decline in the ability of Igiugig residents to be involved in the Bristol Bay fishery. Of the twenty-six Igiugig residents that participated in the Bristol Bay Regional Vision survey in 2010 the majority felt that the lack of access to limited entry permits is the main barrier that prevents young people from being active in commercial fishing (Bristol Bay Regional Vision 2010a, 24). The need to restructure their entire economic infrastructure forced Igiugig to be creative and made them look deeper into their own resources as well as open up to outside resources.

5.3.2 The Openness to Change

One very visible way Igiugig has been open to change is in relation to newcomers. As AlexAnna Salmon mentions in relation to the lack of local people to employ, the village is not afraid to get help from outside the community. Bristol Bay has always been a region with a great influx of non-Natives, first due to the trapping of beaver and otter, as well as the influx of missionaries, and later due to the lucrative commercial fishery. In most Bristol Bay villages, this part of the area's history is evident from the many people with Russian and Scandinavian last names, a result of intermarriage during the years. People in Bristol Bay

have a long history of coexisting with non-Natives and many people can trace their roots back to a non-Native trapper or fisherman. Most of the youth interviewed in Igiugig have a non-Native father or mother and can therefore be considered, what is referred to as, “half” or “mixed.” However, this does not mean that there are no clear categories for what is Native and what is not, and in some villages it is looked down upon to act in what is considered to be a non-Native way. When asked about this issue and whether or not she thinks Igiugig is “less Native” than other communities because of the amount of non-Native inhabitants and outside influences, AlexAnna has this response:

ALEXANNA SALMON: No. You know, they always talk about blood quantum, “oh you’re only half,” or whatever. Being Native has to do with a worldview and as long as you have that worldview and you’re true to it then, because I can find aspects of Native society in the most whitest of situations, if you want to say it like that. You don’t have to live in a sod house and eat only Native foods, it’s living the values and believing in the worldview that makes you Native and this community really upholds the values, like, we’re very good to our Elders, whether they’re our relative Elders or not they’re taken care of. In other communities you’ve got young people living off of their Elders’ social security incomes and they’re, you know, they’re making their Elders provide for them and here we provide for our Elders. We have a food bank so that even if you’re not able to take care of yourself you will be taken care of. (...) A lot of people have said from other communities, “they have white people working for their council,” or, “that’s why...” or it just looks different in Igiugig, like, with the beautification flowers and people all over say it’s the cleanest village ever. That is, if you look at, you know, Native culture, they kept everything clean and beautiful, beautified everything that they used and then with the recycling program, you know, you don’t throw away something if you don’t have to, you know, that is all, you know, stems from fundamental Native culture... And then as far as, you know, food, you’re sharing it with people, you’re eating it together, celebrating, feasting together, that happens still frequently here, potlucks and stuff, it doesn’t matter what you’re bringing as long as you’re, you know, partaking. And you take care of your kids and here in this community kids are such a focus, and that tradition of bringing them into the work place and not telling them what to do but just kind of working with or showing, leading by example, those are all, you know, that’s what they did back then and that’s what we do today, no matter what, you know, no matter that we’re working in a tribal government institution or something new, that

we keep those same values. (...) Even though from the outside we look modern and whatever else, we have done it with our traditional values and I think that's why, even though we have hard times and same challenges as other communities that we don't let them get the best of us. And so, that's what I have to say about that!

(AlexAnna Salmon 2011a, 17:25)

In this quote AlexAnna reveals some of the logic behind many of the projects and priorities of the community. She also sheds light on what the term "Native" means to her – and what it does not mean. AlexAnna gives examples of the many ways in which Igiugig tries to found the community life on Yup'ik values while staying "up to date" on contemporary solutions to issues of living in rural Alaska. In this manner it is without importance that their comprehensive recycling program is largely a product of mainstream society technology and infrastructure as long as it follows the values of the community, such as taking care of the environment and not wasting any resources. Likewise, it is not important what kind of food a community member brings to a potluck as long as everyone participates in the cultural activity of food sharing. Of course, when considering the early lives of Elders like Mary Gregory-Olympic, contemporary life in Igiugig is a far cry from "traditional." Everyday, however, Igiugig residents are presented with choices that relate to how they live their lives and how they run their village and every choice represents a lesson in how to maneuver within the context of mainstream American society – with all that this entails.

The tension between what is Native and what is not also relates to the question of outsiders and to non-Natives moving into the community. Since most of the youth in Igiugig have outside influence "under their skin" by having a non-Native parent or grandparent, the issue of "Native-ness" turns into something that necessarily has to be about a mindset rather than blood quantum. How to identify oneself culturally and ethnically within this context is something the youth have to figure out for themselves. To some extent, what "part" of their cultural and ethnic background the youth feel most connected to seems to vary depending on the context. Trying to explain why he does not speak Yup'ik, Gordon Hester says that he is "mainly Irish," but simultaneously, living the independent and self-sufficient lifestyle so tightly connected to Alaska Native cultures is what he appreciates most about living in Igiugig. For April Hostetter, it is important to acknowledge both "parts" of herself. She says, "I've met a few people who are really intent on Native stuff and I know that the Native people weren't treated very well and they're very opinionated about that and they are very

pro-Native and all-Native stuff but I think that it's important also to acknowledge that there are, the Caucasian side of us is important as well" (April Hostetter 2011, 18:50).

For Igiugig and its residents, being a sustainable and healthy community seems to be about finding a balance between the different aspects of life or between the "new" and the "old," whether the subject is land use or self-identification. As a community, Igiugig is generally very open to change. However, this change has to happen on the terms defined by the community. As a tribal government Igiugig has certain legal avenues to go down if someone or something infringes on their rights, such as lodge owners refusing to follow land use regulations. Even though the village attempts to only allow outside influence and change that corresponds with the general community values and goals, some changes occur outside the reach of the village. This is the case with the Pebble Mine Project. Located immediately above Lake Iliamna, roughly fifty miles northeast of Igiugig, the proposed mine will be one of the biggest copper mines in the world. It is estimated that the prospect contains 80.6 billion pounds of copper, 5.6 billion pounds of molybdenum, 107.4 million ounces of gold, as well as significant amounts of silver, rhenium, and palladium (Pebble Partnership 2009a).

The proposed mine is on state land and therefore outside the jurisdiction of Igiugig or any other community in the region. If the mine gets approved, however, it will greatly affect these communities. Promising to contribute to a sustainable future of southwest Alaskan communities, the Pebble Partnership hopes to offer an estimated 1,000 operation and 2,000 construction-phase jobs, most of which will be available to residents of the region. The majority of these jobs are estimated by Pebble to continue for twenty-five to thirty-five years (Pebble Partnership 2009b), thus the employment has a definitive end (as long as it takes to extract the minerals) but does not quite follow the "boom-and-bust cycle" characteristic of other development projects in Alaska's history, such as early gold mining and logging.

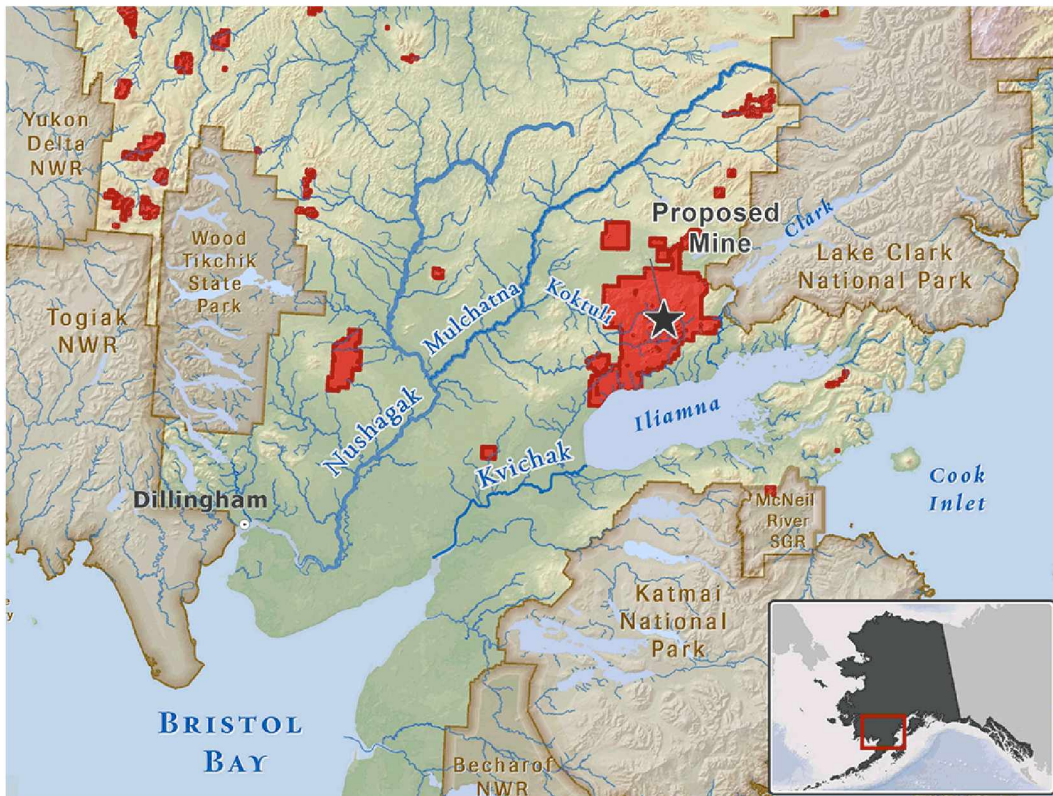


Figure 5.1: Location of the proposed Pebble Mine. The village of Igiugig is located where Lake Iliamna feeds into the Kovichak River (courtesy of The Nature Conservancy).

There are several questions to be asked about the possible effects of the Pebble Mine Project on the sustainability of southwest Alaska and communities like Igiugig. The most pressing issue discussed in Alaska on this matter is whether or not the mine will produce economic development at the expense of environmental degradation. The Bristol Bay basin is a spawning ground for tens of thousands of salmon each year, and the Bristol Bay sockeye salmon fishery is the biggest in the world (Chambers, Moran, and Trasky 2012, 92). The mine will thus be located in the “breadbasket” of Bristol Bay, and issues of toxic mining waste contamination are particularly pressing. Whereas the mine undoubtedly can provide jobs and in that sense help sustain the regional and local economy, it is not clear what the environmental consequences will be. Due to the size of the proposed mine, the storage facility for toxic mine waste (mining tailings) will be one of the largest in the world. According to a Wild Salmon Center and Trout Limited report from 2012, there is no example of toxic waste facilities of similar metal mines that have not leaked toxic contaminants into the environment to one extent or another. The report concludes that such contaminants would have a devastating effect on the salmon and the salmon ecosystem in Bristol Bay

(Chambers, Moran, and Trasky 2012, 51-66 *passim*). There are numerous examples of mining related environmental damage to air, soil, and waters in the United States, for instance the Summitville Mine in Colorado and the Iron Mountain Mine in California (McKinley 2012), as well as the Red Dog Mine in Alaska (Chambers, Moran, and Trasky 2012, 78-79). The Pebble Partnership is aware of this threat and has spent a considerable amount of time and money on surveys and research on the matter (Pebble Partnership 2009c). However, there is a general skepticism in the region, as well as among some scientists as to the ability of the Pebble Partnership to store the toxic waste safely in perpetuity (EPA 2012), especially considering the considerable seismic activity and extreme weather conditions in the region (Chambers, Moran, and Trasky 2012, 35-38).

When understanding the environment in which humans live as a social-ecological system where all elements comprise a whole, it is necessary to investigate the effects that development and change in one area can have on other areas of this system. Whereas sustaining one element can support the sustainability of another element, this is not always the case. For instance, the building of a mine will help sustain the economy (at least for a while), but it might degrade the ecosystem in the process. When all elements are part of the same whole, a limited focus on one element (such as the economy) is problematic since it does not account for the complex web of interaction and feedbacks inherent in such systems (Turner et al. 2003). For instance, an economy cannot be sustained when the services provided to it by the given ecosystems are depleted. People living in Bristol Bay depend on the waters and the fish and marine mammals in them for survival, for food, for income, and for cultural value. An incomplete analysis and understanding of the issue will likely lead to an inappropriate or ineffectual policy.

Regardless of the possible economic benefits, many Igiugig residents are skeptical about the project, largely because of a general concern about the health of the land and waters. When Igiugig residents were asked at the Bristol Bay Regional Vision survey in 2010 what they were most concerned about in relation to new, large development, the majority of the twenty-six participants answered the possible damage to land and waters as well as the loss of their way of life (Bristol Bay Regional Vision 2010a, 34). Although the survey did not identify this development as Pebble Mine, it is likely that the participants had this development in mind when answering the survey since this project is the largest development scheme in the area. Elder Mary Gregory-Olympic is one of the Igiugig residents who oppose Pebble Mine. She will gladly talk about why she is an opponent of the project

and she has taken part in several interviews and documentaries on the subject. When asked why she is against Pebble Mine she says, “Money’s alright but they don’t last long. Food lasts long” (Mary Gregory-Olympic 2011, personal conversation). In her interview, Mary relates the Pebble Mine Project with a story of starvation time that her father told her about.

MARY GREGORY-OLYMPIC: One of these day gonna starvation come. I hope I didn’t catch that one. It’s kinda scary. That one up there gonna be fast. Pebble Mine’s dangerous... That’s why those guys up there try to hunt. My cousin sometime I tell, “you guys should hunt up there, Pebble mine place.” No more caribou. Come down and hunt some other places, too in Iliamna. They should have stopped that Pebble mine first beginning. Too much money, that’s why. Money, money. (Mary Gregory-Olympic 2011, 19:32)

According to what Mary has heard from relatives, it is becoming increasingly difficult to hunt in the relative proximity to the mining prospect. Other residents, such as Gordon Hester and Elders Annie and Georgie Wilson also mention the decrease in moose and caribou in the area. Mary sees this as the first sign of the big shift in the availability of animals that her father and grandfather talked to her about. Elder Mike Andrew also talks about starvation time in his and Dallia’s interview, but for Mike there is no connection between this story and the Pebble Mine Project.

MIKE ANDREW: When I talk about starvation it comes from my Elders, my grandpa and grandma use to tell us. Long time ago have double winters, you understand that? You ever heard that? (...) No more fish, no more nothing. Even wild, all gone. The only thing we’re gonna have fish in the first while lingcod, number one, number two, sucker, and black fish that’s eating the ground. That’s food and wild from the ground, that’s what’ll be around. In two years we’re gonna have nothing. (...) And later on when we start wasting it’s not, it’s not good, like my grandpa and grandma they cry even they hope they die before it happen cause it happen long time ago. Double winters no fun. You don’t share with nobody, what you got you gotta keep it to yourself. You might starve out, so it’s not good. And beside that they tell when the end of world, that’s coming, and might happen someday. Water’s gonna turn red, like blood, we can’t drink it. That’s the dangerous thing, we’re gonna have my grandpa’s and grandma’s, we’ve got it coming. And when we talk about it we always tell... gold mine up there, it’s not dangerous, the only thing we’ve got coming, end of the world, that’s dangerous, we’re gonna have nothing, we can’t eat off the land,

nothing at all. The mine up there it's not dangerous it's suppose to help out the people, help them get work, pay for the bills, work for the families. I'm not against Pebble Mine, no, I'm not, they're gonna help us out, anybody work. When we talk about starvation that's a danger, that's gonna be no fun. (Dallia and Mike Andrew 2011, 19:02)

Whereas Mary sees a clear connection between starvation time and the Pebble Mine Project, Mike and Dallia do not draw that connection. Rather, they argue that the mine as nothing else than an opportunity for rural residents to secure an income. The people living in Igiugig are, like the rest of the region, split on the issue of Pebble Mine. However, the vast majority of the people interviewed, including youth, adults, and Elders, express concern that the mine will decrease their quality of life. The Igiugig Village Council is neutral on the matter of Pebble so as to best reflect the sentiment of the community. They have applied for and received grants from the Pebble Partnership and a handful of Igiugig residents have worked for Pebble over the past five years. Only a couple of the youth, however, express interest in working for Pebble if the mine becomes a reality. Gordon Hester would like to be able to stay in the lake area and so far it has been easy for him to find work. He worked on an oilrig in King Salmon for the past two years but after he got a back injury last year he decided to stop working on that particular rig. When asked about where he considers working in the near future he says:

GORDON HESTER: Just right here, there's a big mine that's gonna open up right next door and there's so much work opportunity up there right now. You don't have to go anywhere, you'll be just fine.

IRMELIN GRAM-HANSSSEN: So on the issue of Pebble, you think it's a good idea for the region?

GH: No it's not a good idea but while it's there you might as well milk them for every dollar they've got... It's not, I mean, I'm not trying to sound like a mean person or anything, but while they're there you might as well work as long as the opportunity's there... Other than that I don't care. I'd rather take the fish. (Gordon Hester 2011, 14:58)

Gordon's approach to the issue of mining shows the complexity of the matter. According to Gordon, the mine offers a lot of job opportunities for anyone who wants to work in the area and for him personally the mine will allow him to work in his area of expertise (drilling rigs) while living in Igiugig. Others have a less opportunistic approach to

the mine and some of the youth interviewed would not want to work for Pebble in any shape or form. In Jonathan Salmon's opinion, Pebble Mine has the potential to take residents away from the village because of the employment opportunities up the lake and in that way weaken the already vulnerable workforce situation in Igiugig. As described earlier, Igiugig is not in need of jobs but rather in need of people to hire, and this unique position is likely what makes most of its residents oppose the mine: they simply do not need the employment opportunities that the mine can offer and therefore the possible negative effects quickly outnumber the positive ones. In the Bristol Bay Regional Vision survey in 2010, only 11.1 percent of the twenty-six participants indicated that they would be excited about more jobs in the region caused by large or small development (Bristol Bay Regional Vision 2010a, 35). Even though Igiugig is a unique community when it comes to community-based job opportunities, AlexAnna Salmon argues that other communities could do similar things. When asked if she understands why other southwestern communities say that Pebble Mine is the only solution to their unemployment problems, she says:

ALEXANNA SALMON: Well, I don't believe it. I don't believe it, I just say, "you're not looking hard enough; you're not trying hard enough. To say that you're living in poverty and that there's nothing out there, you must be living in a cloud!" (...) And that's another thing about Igiugig people, we don't like to sit there and get a pay check, we wanna earn that money, you know, we want to earn and be actively doing, we don't want to be a token Native organization getting all this money just for the sake of living in that community. We take pride in the work that we do and we want to be actively doing it or we'd rather just live poor, you know, and there are opportunities and we have looked for them here and we haven't even tapped into, you know, I think we've taken the tip of the iceberg. Even if you think about these 8(a) companies they can take any direction, work anywhere in the world that you want them to but every time we have a new business opportunity we kind of weigh our values and our morals and what do we: what is gonna be best for this community? Because it's not healthy to just sit there and get a pay check for not doing anything. And I'm not pointing fingers or saying communities are doing that, I'm just saying that's the mentality of the people here or at least the people running the organization. (AlexAnna Salmon 2011a, 1:04:35)

According to AlexAnna, being a small Native community in rural Alaska has forced Igiugig to branch out and be creative in the way they approach employment and community

wellbeing. She argues that whatever good thing they have going on in Igiugig, other communities can get as well if they know what they want and work towards it. From AlexAnna's point of view, Pebble Mine is but one way of securing an income in southwest Alaska and it should not be viewed as the only solution to economic sustainability. From a sustainability perspective, being largely dependent on income from an outside source, such as Pebble Mine, is problematic because of its implications for community vulnerability. Being directly dependent or over-connected to an outside economic system can leave the community vulnerable to sudden shocks or changes in this system. Because the system is not local, the community is less likely to be prepared or able to counteract such shocks or changes.

AlexAnna introduces another possible implication in the quote above: if a community relies on outside income that is largely controlled by outside forces, the community is less likely to be innovative in its attempt to create a local economy and it will gradually become less self-reliant. This will of course not necessarily be the case. For some communities, the extra income a mine can provide could potentially allow for investment in local infrastructure or improvement projects that could enhance a strong local economy. However, at least initially such outside employment opportunities are likely to reduce the diversity of local employment in a community. Pebble Mine could potentially create a scenario where communities in Bristol Bay become increasingly dependent on, or locked into, an economic system that they are unable to affect while they simultaneously decrease their attempts and ability to create or strengthen their local economies. When further considering the possibility of ecosystem degradation, which could result in fewer fish and wild game to eat, fewer sport fishermen to support the local economy, and culture loss – to name a few – the risks connected to the mine increase. This would further the creation of a “lock-in trap” scenario, where communities become unable to support themselves without the income of the mine, both because they will be dependent on this income and because the natural environment will no longer be able to support them sufficiently. (See Allison and Hobbs 2004 for an extended discussion on the concept of the “Lock-in Trap.”)

When asked what they would do if the waters got contaminated to a point where it was no longer safe to drink or take fish from the river and lake, more than half of the youth interviewed said that they would likely move away. There is apparently no price high enough for the cultural significance of the river and the resources it provides. A study from 2009 investigated the connection between the availability of subsistence activities and the

likelihood of moving away from a community among Inupiat residents on the North Slope. The study concluded that “a 1% reduction in household meat and fish harvests, other things equal, would increase the probability that a respondent would consider moving away from the community by 1.25%. This is about the same effect on migration as a \$2000 change in earnings.” (Berman 2009, 13)¹¹ This exemplifies the immense importance of the availability of subsistence activities for many Alaska Native residents and it questions the benefits of more jobs at the expense of less fish or other subsistence resources. However, living in rural Alaska is expensive and it is obvious how development like Pebble Mine seems to provide an answer to rural communities, despite the potential for ecosystem degradation. What Igiugig residents argue, however, is that gaining a foothold economically on behalf of the ecosystem is not sustainable, nor is it the only solution to strengthening local or regional economies.

5.3.3 Summary of Key Points

As with the percentage of residents with a college degree, the resident-to-job ratio in Igiugig makes this community different than most rural Alaskan communities. The conscious attempt to diversify their economy has resulted in a situation where their vulnerability to changes in state and federal funding and the global economy is significantly lower than in communities where the entire economy is based on one sector, such as mining or commercial fishing. A diversified economy makes it more attractive for the youth to return after training or schooling since there are a variety of jobs available for them to occupy. It also attracts outside resources and enables the village to access a broader variety of funding sources. Although Igiugig is very much connected to the global economy, their attempt to become more self-reliant through a diversified economy improves their ability to respond to changes and shocks on their own terms. Not only has Igiugig worked on diversifying their economy, they have coupled this with an effort to improve their local infrastructure. Through different programs, such as the 8(a) program, the village has been able to provide jobs for its residents while building and upgrading village infrastructure, such as housing and roads.

To be able to take advantage of new economic possibilities, the community has had to be open to new ideas and people from the outside. The majority of the people in Igiugig

¹¹ This statistic is based on people’s perceived likelihood of moving rather than actual moves.

have been born and raised there but there is also a significant number of residents that have moved to Igiugig from elsewhere. The influence they bring, and the influence returning youth bring, has helped shape Igiugig. AlexAnna Salmon argues that although Igiugig might look “less Native” from the outside, everything they do is based on values connected to their largely Yup’ik heritage. Being Native, she says, is about a worldview. Whereas change is often looked upon with some anxiety, largely due to the devastating affects change and outside influence has caused in the history of Alaska Native peoples, change that follows community values and goals is beneficial – and necessary. In a constantly changing environment, rural communities need to actively engage with this change. This is necessary for them to be able to more frequently and effectively respond to the change on their terms instead of being dictated by it.

The relationship between Igiugig and the nearby sport fishing lodges provides a good example of how the community is open to compromise. Although the sport fishing culture is not necessarily one that people in Igiugig approve of or subscribe to, the lodges provide a significant amount of village revenue. The relationship is largely functional and beneficial for Igiugig because they have been able to create a scenario where the lodges work within the regulations set up by the Village Council. Igiugig has developed clear community values for the lodges to follow and utilizes their status as a tribal government to enforce it. Pebble Mine, on the other hand, is an example of an outside influence that is not and cannot be on the terms of the village. Judging by the majority of the interviews, Igiugig does not need Pebble Mine to become economically secure. Furthermore, when illuminating some of the potential risks connected with the Pebble Mine project, such as environmental degradation, the attractiveness of this endeavor decreases further. It is likely that this type of development will leave villages like Igiugig more vulnerable to change and sudden shocks because these villages will be “locked-in” to an economy over which they have no control.

That Igiugig is largely uninterested in Pebble Mine and does not need this economy to secure the lifestyle of its residents is largely due to the community’s diverse economy and innovative solutions. Although Igiugig’s situation is different than other communities, for instance because of the sport fishing industry, AlexAnna argues that other communities are equally able to diversify their economies and that it is a matter of being creative and taking on new challenges. Diversifying is naturally only a solution to certain types of problems and the ability to diversify will differ from community to community depending on the differing natural, human, and economic assets available. Taking on new projects and finding new

ways to earn a living is thereby intrinsically connected to local conditions. This again calls for an understanding for and consideration of the local context and an acknowledgement that what works in one community will not automatically work in another community. In Igiugig they have been able to identify their natural, human, and economic assets and take advantage of these assets so as to strengthen the overall sustainability of their community.

However, being too diversified and broadening out too far and too fast in the attempt to secure an economy does not necessarily enhance sustainability. Rather, it can potentially increase the vulnerability of the community by leading to personnel burnout and outside influence that is inconsistent with community goals and values. In Igiugig they are trying to find the balance for economic diversity, and although the bustling community economy has contributed to many improvements the past decade, they foresee a decrease in economic activity in future years. Community sustainability, it seems, is not about continuous growth and development, but about finding the intersection of the various community goals, inherently connected to the values of the community. In Igiugig, the focus is shifting from the development of the economy and infrastructure to the development of the community's food system and energy sources. This endeavor will be illuminated in the following themes.

5.4 Food and the Relationship With the Land

5.4.1 Food

Although southwest Alaska is rich in resources and the Kvichak River has one of the greatest sockeye salmon runs in the world, nobody in Igiugig lives solely off the land. Country foods, such as salmon, whitefish, moose, and caribou, make up an important part of the diet for some people and are certainly of cultural significance for most people, but the majority of the food eaten in Igiugig does not come from the land and river but is flown in from Anchorage. According to the responses given at the Bristol Bay Regional Vision survey in 2010, 33 percent of the twenty-six Igiugig residents that participated get "most" of their food from the land whereas 56 percent get "about half" and 11 percent get "some" of their food from the land (Bristol Bay Regional Vision 2010a, 21). Issues of changes in land use along with changing diets in rural Alaska are significant when talking about access to food that satisfies both nutritious and cultural needs – in other words food security (see Loring 2007; Loring and Gerlach 2009; Loring et al. 2011; Gerlach and Loring 2012).

The shift in where the food comes from and how it is being acquired is rooted in the changes in lifestyle with a general increase in wage jobs and decrease in time spent on the land. Also, regulations about where and when one can hunt as well as changes in the natural environment followed by unpredictable weather and animal behavior has contributed to a decrease in hunting, fishing and trapping activities in Alaskan villages (Loring 2007, 82-108 *passim*; Gerlach et al. 2011, 89-90). The introduction of processed foods into rural villages has greatly increased the amounts of saturated fats and sugars consumed by rural Alaskans. Similarly, the number of people suffering from type-2 diabetes, heart disease, and cancer has increased dramatically among this population in the last fifty years (Bersamin et al. 2006, 1060-1063). Flying in food from Anchorage and Fairbanks is expensive and it leaves the food prices in village stores soaring with basic food items several times more expensive than in the bigger cities (Goldsmith 2008, 4). The incredible cost of food along with the demand for long shelf life due to transportation time greatly limits the food choices and in many households the result is frozen french-fries and chicken sticks for dinner. For some, however, it is not necessarily a question of money but of preference. The introduction of processed foods has resulted in a change in preference between the older and younger generations and many young rural Alaskans – as with many urban youth as well – favor store-bought foods (Loring 2007, 102).

The necessary equipment for hunting and fishing is expensive in the villages due to transportation costs of fuel, snow-machines, outboard motors, and parts for repairs, to name a few. Besides the costs one also needs to have the time and skills needed to go out and hunt and fish. Many of the subsistence activities require an elaborate knowledge of the land, the animal, and the various techniques and it is not sufficient to have been out a few times with parents or Elders (Kawagley 1995, 55-85 *passim*). The time and skills necessary is not something every young person has in contemporary rural Alaskan villages, largely due to the changes in lifestyle. Based on research done in Minto, Alaska, Loring (2007) concludes, “Young people in general no longer engage with the country in the same way that Alaska Native Elders do (...) sometimes because of opportunity or financial constraints, a lack of significant contact with Elders, a sedentary lifestyle, all to some extent driven or subsidized by the increased participation in a global food system” (Loring 2007, 104).

This is of course not the case everywhere or for everyone. In Igiugig, hunting, fishing and trapping is practiced and highly valued by some individuals, mainly a handful of younger men and those of the Elders that are still able to get out. Also, whereas only some

individuals go hunting and trapping, these activities are viewed by all village residents as critical for village health and the continuation of a certain way of life that all Igiugig residents subscribe to, some more directly than others. This was exemplified at the Bristol Bay Regional Vision survey in 2010, where the twenty-six Igiugig residents that participated chose subsistence activities as the most important part of their life after family. Connection to the land and water was chosen as the third most important part of their lives. Access to subsistence resources was also on the top of the list of things the participants wanted to maintain in the future (Bristol Bay Regional Vision 2010a, 7). In his interview, Gordon Hester speaks about hunting and the difficulties that money, time and availability of animals cause but how this is not nearly enough obstacles to prevent him from going out.

GORDON HESTER: It was really easy back then [when he was younger], if you wanted a caribou all you had to do was walk out and you could, you could climb a tree and look out and somewhere you could see a caribou. But now you have to go as far as your Honda will take you and fill up and keep on going before you find them.

IRMELIN GRAM-HANSSSEN: Yeah. Do you know why that is?

GH: No, never figured that out.

IGH: But that's both the case in Kokhanok and in...?

GH: It's in the whole lake area. It's happening all around, everywhere, the caribou are gone.

IGH: So what do you go hunting for these days?

GH: We go out and find the caribou!

IGH: Okay, so it just means more gas, more time?

GH: Yeah, yes. And you need to work to get that gas, to make the time to go out there and get it. It got just a little bit harder; you gotta do one more thing to be able to go out there.

IGH: But it's still worth it to you?

GH: Yeah! (Gordon Hester 2011, 20:00)

Born and raised in Igiugig, Kevin Olympic, thirty-one, also mentions hunting and fishing as a very important part of living in the village. Although confined to a wheelchair because of a hunting accident when he was eleven, Kevin gets out hunting and fishing whenever friends and family help him to get out. More so than being in a wheelchair, it is the increasing cost of gas that can prevent Kevin from going out. "[It] is getting really tough now since it's getting really expensive (...) So now it's like, 'oh, do I really wanna go out today?"

Let me check my wallet first!' Not like the good old days when it was, like, \$3 a gallon. Like, 'alright, let's go!' But the price of fuel really gets us, like, 'okay, can I afford to go out this year?'" (Kevin Olympic 2011, 12:25) Regardless of the barriers Gordon and Kevin encounter in their attempts to get their food from the land, they still feel like their efforts are well rewarded. This is both because of the high quality of the food from the land compared to what can be bought in the store and the satisfaction of providing for oneself. Terek Anelon, who goes both trapping and hunting, puts it this way, "you've got pride, you've gotta be able to provide" (Terek Anelon 2011, 15:19). Terek spent a lot of time on the land with his father and grandfather growing up and considers it an absolute necessity for a young person to learn how to live off the land – even though he says nothing beats a T-bone steak every once in a while. When asked about whether or not he thinks he will take out his own children, he says,

TEREK ANELON: Oh yeah, boy or girl, boy or girl, she's going with me. Yeah, I'll be changing diapers thirty below outside! Well, when I was younger I used to go with my grandpa and my dad lots and when you're a young kid you fall a sleep a lot, you're sitting in the lap of the, in the snow machine, you fall asleep and you hit the handlebars, you get a bloody nose and stuff like that. Yeah, I'm sure my kids are gonna end up having a lot of bloody noses. Yeah. (Terek Anelon 2011, 15:30)

The pride of having the skills to go hunt, fish and trap is also connected to the great cultural significance of these activities in Igiugig, as well as in most Alaska Native communities, and their contribution to the general wellbeing of rural residents. According to Berman's (2009) study on the North Slope, the availability of subsistence activities in a given location is more significant for whether or not someone is likely to stay or move than is any other variable, such as jobs or housing (Berman 2009, 13). ANILCA defines subsistence use as

Customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of non edible by-products of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade. (ANILCA 1980, title VIII §803)



Figure 5.2: Christina Salmon helps her grandmother, Mary Gregory-Olympic, cut up fish on the beach of the lake. Dannika and Shealayla are testing the water.

For many Alaska Natives, however, subsistence is more than a means to stay fed and clothed; it is a way of life and it is intrinsically tied to a certain worldview that leans on Alaska Native cultural values from before contact. Therefore, a continuation of subsistence activities is seen by many as a necessary aspect of the continuation of Alaska Native cultures (Holthaus 2008, 70-71; Berman 2009, 14; Kassam 2009, 68; Gerlach et al. 2011, 98). Although all of the youth interviewed identify hunting and fishing as important components of living in rural Alaska and as a significant symbol of their Alaska Native heritage, far from everyone takes direct part in these activities. Most of the young women interviewed pick berries, help the Elders put up fish, and cook with food obtained from the land, but they do not go out hunting themselves and only a few go fishing. Some of the women, like April Hostetter, have never been involved with hunting and fishing activities, although April says she would like to learn. Regardless of experience, however, all youth identified hunting, fishing, and other subsistence activities as important to life in rural Alaska. This suggests that there is a general consensus about what values the culture of Igiugig is made up of, even

if some of these values are only actively practiced by some residents. This notion will be investigated further in chapter 6 Discussion and Conclusions.

Elders Mike and Dallia Andrew go out every day in summer and fall to check on their net, and Elder Mary Gregory-Olympic spends this time of year splitting, smoking and hanging up fish at her fish camp at the end of town with the help of her children and grandchildren. The Elders are largely self-sufficient in between their own catch and food bought with money from retirement or the like. However, it is also the custom in Igiugig, as it has been among Alaska Native cultures since time immemorial, to support the Elders of the village with food and various favors. In Igiugig they have set up a food program to ensure that all the Elders have enough to eat. During the winter months the Elders can come up to the school for free hot lunch every day. The hope is that this will also create a forum for Elders and children to get together on a regular basis. Igiugig also has a local food bank for all residents where surplus food from households and the lodges is donated.

On top of these programs, Igiugig is in general trying to become more food secure, i.e. making sure that people can access nutritious food that satisfies their needs and wants. Three projects provide examples of the village's efforts in this regard: the egg project, the potato garden, and the greenhouse. The egg project, which has been running since 2002, started as a reaction to the high expenses connected to transporting eggs to the village. The project started out with a small chicken coop and a handful of chickens but thanks to an Alaska Food Coalition mini-grant the operation grew. With an egg incubator and storage facilities the village is now able to increase the number of chickens as well as freeze food scraps from residents and the lodges for chicken feed. Today they have around thirty chickens and they produce enough eggs for all of Igiugig's residents, as well as for the lodges. A donation of \$3.50 is recommended for a dozen eggs but Elders get their eggs for free. Looking into other food items to produce, and inspired by rural community gardens in the area, the community came up with the idea of growing potatoes. This project also quickly became popular with an annual potato festival at harvest time.

The success of the egg and potato projects made the village look into a more large-scale food production project. Based on the ideas and needs identified by the residents, the Village Council made a business plan for a community greenhouse and submitted an application to the Alaska Federation of Native's Alaska Marketplace competition. Subsequently, in 2009 the Kvichak Organic Produce plan won nearly \$40,000 to start the project. Furthermore, a Pebble Fund grant of \$60,000 for three wind generators, a grant

from the USDA, a grant from the Alaska Food Coalition and the Division of Agriculture for seeds and innovative equipment (such as a misting system for irrigation and a wood boiler to extend the growing season), and a considerable community match, helped the 24'x48' greenhouse get up and running. Most of the Igiugig residents are involved in the greenhouse and the village has even been able to offer its residents a college credit greenhouse growing class through the University of Alaska Fairbanks.¹² The greenhouse is a success and most families have plots where they grow various vegetables for personal consumption. The community has not been able to employ a greenhouse manager, however, and the person volunteering is rather overwhelmed with the work required to run the greenhouse. The goal is to be able to hire a manager part-time.



Figure 5.3: The potato garden in Igiugig.

It is the hope that the village will be able to sell produce from the greenhouse to the school, but there are a lot of state and federal regulations that prevent this from being

¹² Some of the details about the egg project and the community greenhouse are from the article “Village Chickens and Community Gardens Thriving in Igiugig” on the Alan Austerman blog <http://www.alanausterman.com/?p=1838> (accessed December 2, 2011).

feasible at the moment. Even fish caught in the river violate school meal regulations and cannot be served to the children. Instead, the children are left with processed food flown in from Anchorage. The meal planner at the Lake and Peninsula Borough School District decides what food they cook at the school and one criteria is that it has to be USDA approved. Martha Crow, who works as the school cook, says that the food is neither healthy nor tasty in her opinion. It is generally felt in the community that a change in school food regulations would benefit the community greatly, both in terms of the health of the children, the general economy of the village, and the food security of the inhabitants since the income from the sales would enable an expansion of the produce production as well as the employment of a full-time manager. According to Gerlach and Loring (2012) the requirements for the sale of agricultural products are aimed at industrial food production and are largely impossible for small-scale producers to comply with (Gerlach and Loring 2012, 24). Despite this challenge, some villages in the Yukon-Kuskokwim delta region have been successful in implementing local food programs that allows them to feed their children locally caught fish. In Igiugig they have begun selling produce to one of the local lodges. They plan to expand this business to some of the other lodges in coming years.



Figure 5.4: The Igiugig greenhouse with individual and community plots.

On top of these seasonal solutions, a lot of the community's food is flown in from Anchorage by Joel Jacko's expediting service, Kamikaze Expediting. Besides Igiugig, Joel serves the southwest villages of Ekwok, Nondalton, Pedro Bay, Port Alsworth, Levelock, Kokanok, Koliganek, and New Stuyahok. Joel also owns and runs the little store in Igiugig where residents can buy basic items and vegetables with long shelf life, such as potatoes and onions. Getting food flown in with Joel is not more expensive than buying it in the store in Igiugig or flying it back from a trip to Anchorage oneself. One gallon of milk flown in through Kamikaze Expediting costs \$8 and fifteen pounds of basmati rice cost \$28. Many of the items on Joel's list are marked organic or "healthy choice." During the winter months some of the Igiugig households subscribe to Full Circle Farm and have vegetables and fruit flown in from Washington State. This is an expensive solution to fresh produce but for many it is worth the extra expense.

Besides all the programs and infrastructure set in place to ensure that people in Igiugig have access to food that satisfy nutritious, cultural and preference criteria, AlexAnna Salmon argues that the resources available "just outside the door" should prevent anyone from going hungry. "I don't think you should starve to death if you have the ability to throw a net out into the water," (AlexAnna Salmon 2011b(I), 23:23) she says. In Igiugig, the richness of the Kvichak River creates a unique scenario where the fear of going hungry is largely absent for most people. However, besides the Elders, few Igiugig residents would be satisfied with eating only salmon and whitefish for an extended amount of time and there is a difference between having the possibility of solely subsisting off the river, and actually utilizing this solution. The notion of the rich Kvichak River does, however, work as a form of food security "insurance," at least in the minds of people in Igiugig. Currently there is no restriction on how many fish an Igiugig resident can catch for personal consumption and although the availability of fish varies from year to year, there never seems to be a shortage. According to the 2012 Feeding America study on food security, the Lake and Peninsula Borough is relatively food secure compared to other regions in Alaska. Although still slightly above the 16.6 percent national average, the 17.7 percent food insecurity figure for the Lake and Peninsula Borough is nearly half that of other regions in western and interior Alaska. It is likely that this is related to the rich natural resources of the Lake and Peninsula Borough. The area immediately surrounding Bristol Bay has a mere 9.5 percent food insecurity, the lowest percentage in the state of Alaska (Feeding America 2012).

Location is not necessarily indicative of food abundance, however, and sometimes conditions in Igiugig are less than ideal. Just before their interview, Elders Mike and Dallia Andrew had been out checking their nets and Mike gave this report:

MIKE ANDREW: That's why we just came back, we've got nets down there, we would store them for the winter, put them in the freezer, that's our food, you know. We gotta have a pully, these years water's too high [for] fishing.

IRMELIN GRAM-HANSEN: No fish?

DALLIA ANDREW: Yeah, for, [difficult] fishing when water's too high. Before we use to get it right away this time of year, but today they get kind of slow.

IGH: Aha. Is it normal that the water is so high?

DA: Once in a while, once in a while it get high like that, not very often. Sometime it's pretty low, springtime, water's really low. (Dallia and Mike Andrew 2011, 9:05)

Mike and Dallia also mention an increase in the bear population and the many sport fishing tourists as causes to the decrease of fish in the Kvichak River. Regardless of changes in weather and animal availability, however, the Elders of Igiugig that were interviewed all seem confident that they will have enough food at any given time during a year. Dallia did mention, however, that she sees an overall decrease in food obtained from the land. One of the reasons for this is the change in lifestyle. Dallia explains, "We traveled by the dog team, our travel with sled and dog team. That's why them days we put up lot of fish to make it winter for our dogs (...) Nowadays seems like we don't put up fish, just enough to survive through winter" (Dallia and Mike Andrew 2011, 5:30). Clearly, outboard motors and snow machines do not need fish; they need gas and gas cannot be obtained from the land. Another reason is the natural progression of one generation following another. As the last generation who at one point lived solely off the land, the Elders are also the last generation to have the intrinsic knowledge of the land and skill set necessary to be successful subsistence hunters and fishermen. Although some of the youth, especially the young men, are successful in their hunting, fishing, and trapping efforts, their jobs and everyday obligations do not allow them the time to be on the land to the same extent as their grandparents. Also, changes in priorities and lifestyles means that most of them would not want to do so either. Some of the Elders, like Georgie Wilson, used to be avid trappers but with the years Georgie has slowed down and now he only traps for beaver and the occasional wolf or wolverine. Some of the young men have taken up trapping, however, and within the first two days of the beaver

season in October of 2011, Terek Anelon, Karl Hill, and Andrew Scrivo had trapped nine beavers.

5.4.2 The Relationship With the Land

Like in most Alaska Native communities, hunting, fishing, and trapping is tightly connected to sharing in Igiugig. The Elders interviewed, however, agree on a general change in sharing among people in Igiugig. According to Mike and Dallia Andrew, the young people are learning how to share, but it is not to the same extent as when they were growing up and they think this needs to change. Although caring for the Elders and whomever needs help is definitely a value that most of the youth identify in their interviews, it is also recognized by most that the good intentions sometimes fail to result in action. Referring to a conversation she had with her foster daughter about how Elder Gabe Gust, who was recently diagnosed with throat cancer, was doing, AlexAnna says:

ALEXANNA SALMON: And I was like, “actually we should be bringing him food more often.” It’s just so easy with everything going on, you’re inundated, now we have satellite TV that could be numbing your mind, you have internet at home, you might have things to respond to, homework, everything else and then you just get carried [away]. We live further away, we use to live right next to Gabe and dad would have us bring food over all the time and that’s when he was healthy. So it’s like, you’re spread out more and it’s just very easy to forget unless someone calls you. Cause if anybody were to call and say, “you need to bring Gabe some...” “Oh, of course!” You know, and so that’s what I was telling [my daughter] so hopefully she’ll think of it to help keep me on my toes because it is very easy to forget. (AlexAnna Salmon 2011b(I), 25:01)

According to AlexAnna there has been a general shift in sharing structures in the village. Today food is mainly shared with the immediate family in a more unstructured manner than before. Instead of following the cultural rules of how and with whom to share, you give a share to whomever you run into or happen to think of. None of Mike and Dallia’s children now live in Igiugig and their house is located at one end of the village. These factors might have a negative impact on the amount of shares they receive from people in the community. In Mike and Dallia’s view, however, the lack of sharing is directly connected to money and the change in focus from the community to the individual that a cash economy has brought to Alaska Native communities.

DALLIA ANDREW: Our young people different life, they don't, not like in our old days, old days we help anybody without no money, nowadays they gotta have money before they help you, they shouldn't do that they should just help without money, like us. Well, now there's so much by money, you're not gonna have money one of these days. Yeah... we try to tell them, "you gotta help, help anybody need help, help." That's how we usually help long time ago.

MIKE ANDREW: Long time ago, if you wanna talk about (...) young kids. There's too much money they've got in mind, everything gotta have money. That spoiled them young people. When we grew up, me and Dallia, we didn't have no money. That's money right there [points out the window]: wood. We know how to work it, we know how to cut it, we don't go for money, money. (Dallia and Mike Andrew 2011, 22:02)

Despite this change, all of the youth mention helping and caring for one another as one of the things they like the most about Igiugig and something that is inherent to the culture of the community. Although it appears that the organized sharing system of the older generations does not function to the same extent in contemporary Igiugig as it used to, people still help and look out for each other. As AlexAnna explains, the way people share might have become more random and on an individual-to-individual basis. The result, however, is the same: people share. Being a single parent without a steady income, Ida Nelson relies on the generosity of others to fill her freezer with fish and meat for the winter, and in her experience this system of sharing never fails.

The value of respect for Elders and taking care of everyone in the community is another aspect of being connected, though more generally understood as connection to place; the natural environment, the community, and the people living there. In her interview, Christina Salmon shares her hopes for her children and in one sentence sums up what living in Igiugig is really about for her, "I look at my kids today and then I just see the next generation of the future of Igiugig. Cause I hope to raise kids who are, you know, proud of their community and proud of their family and their lifestyles and their culture and wanna pass it on" (Christina Salmon 2011(II), 30:10). In Igiugig they make an effort to help enhance a sense of place and belonging in the children and youth. It is a general belief that growing a feeling of pride in the history, lifestyle, and culture of the community will result in healthy and happy youth that know and are proud of who they are. Also, it is their experience that this in turn enhances the strength of the community. One way to create this

sense of place and belonging in the youth is through conversation and activities with Elders. When asked about the continuation of the Yup'ik way of life, Elder Mary Gregory-Olympic says:

MARY GREGORY-OLYMPIC: Yeah, nowadays they like to, they start let me talk stories, send me there, places, like talk stories for them. Cause nobody talk stories for the kids, what that's why getting lost. It's our fault.

IRMELIN GRAM-HANSEN: So you go to other villages?

MO: Yeah, they send me for other village. (...) They like to let me talk. Cause I like to talk different to people, I'm not afraid. No more afraid to talk, I like to talk with them. (Mary Gregory-Olympic 2011, 14:20)

Besides talking to the youth and children in Igiugig, Mary also goes to other communities to talk about the history of her ancestors and to teach the children about the Yup'ik way of life. When asked how best to share and pass along culture, 56 percent of the nineteen Igiugig residents participating in the second round of the Bristol Bay Regional Vision survey in 2011 said by organizing "opportunities for Elders to teach traditional ways of knowing such as assessing the weather, reading the rivers and oceans, tracking animals, using medicinal plants and berries" (Bristol Bay Regional Vision 2011a, 10). Maintaining a strong connection between the Elders and the younger generations is viewed as a necessity when wanting to instill a feeling of community belonging in the youth and give them knowledge of their Native roots or "where they come from." This connection is created and maintained through communication as well as activities such as processing fish, berry-picking, and other subsistence related activities where the Elders have a unique knowledge to pass on to the youth. Besides everyday interactions and activities the village also organized trips out of the village. Kukaklek Lake, located southeast of Igiugig, is where Mary grew up and it is highly valued by the community as a place to which most residents have some sort of connection. As described earlier, Mary is related to many Igiugig residents and her stories and upbringing is therefore of cultural significance to the village at large. Several trips have been made to Kukaklek Lake and more are planned in the future. After the "boarding school era"¹³ where Alaska Natives were told that their languages and cultures

¹³ Up until as late as the 1970s, Alaska Native children were sent away from their families to attend boarding schools that were often so far away from their homes that it was impossible to go home to visit except for summer break. The purpose of these boarding schools was to assimilate and "civilize" the Natives children and the tools to do so were often abusive in nature, both physical and

were wrong or backwards, it is the hope that giving the new generations an understanding and appreciation of their heritage will make them feel proud of who they are and thereby enable them to lead healthy and fulfilling lives.

It is obvious that all of the youth interviewed are proud of being from Igiugig, regardless of whether or not they have been raised there. Whereas this feeling of pride is definitely not uncommon in rural Alaska, it is not part of the picture that is painted in the press and also not commonly understood by outsiders. Later in her interview, Christina Salmon speaks to this issue with obvious frustration, “I hate people saying, ‘you’re only living in the village cause you can’t make it anywhere else.’ Cause you know, I’d live wherever I want! I choose to be here” (Christina Salmon 2011, 32:02). This is of course not only about her pride in Igiugig but also about having confidence in herself and what she can accomplish in her life. Whereas some Igiugig residents might live there because they have little other options, it is clear from the résumés and the degree of entrepreneurship of these young people that they could live most anywhere they would want to.

5.4.3 Summary of Key Points

With a general decrease in food obtained from the land and an increase in the consumption of store-bought foods that are rich in saturated fats, sugars, and preservatives, food insecurity and health are great concerns in rural Alaska. This “nutrition transition” (Popkin and Gordon-Larsen 2004) has implications for the physical health of rural community residents. The transition also has economic implications because of the high food prices in village stores. Furthermore, it has cultural implications since knowledge of the culture connected to the traditional food system of a subsistence lifestyle is being lost in this process.

In Igiugig, they work on enhancing their food security by developing their local food system. Innovative solutions such as the greenhouse create additional possibilities for obtaining food and it brings the community together in an effort to become more sustainable. The sustainability of the community is enhanced since the reliance on and over-connectedness to the global food system is decreased and the ability of the community to

psychological, and involved abandoning the Native culture, including language. For a discussion of this and its social aftermath, see Bergman 1969, Noriega 1992, Brave Heart and DeBruyn 1998, Henderson et al. 1998.

respond to changes and sudden shocks within the global food system is strengthened. The village is experiencing some barriers preventing them from pursuing this type of development further, such as regulations on food grown for commercial use (like selling greenhouse produce to the school). This addresses the issue of entitlement, since state and federal regulations overwrite the decision-making power of the village and thereby to some extent hinder their sustainability efforts. This is an example of how regional and national structures can prevent local solutions to solve local problems.

Igiugig's food system is further enhanced through the village's relatively extensive infrastructure for accessing food with weekly flights to Anchorage and the semi-local expediting service delivering food to the village. Although subsistence activities are less central in the daily lives of people in Igiugig than they were one or two generations ago, most households have at least one person who engages in such activities on one level or another. Where hunting and trapping activities require a certain amount of skills and equipment, subsistence fishing is something every community member can engage in. In the summertime, nearly all Igiugig residents spend time down at the beach, where thousands of sockeye salmon are caught, cleaned, dried, and smoked. The richness of the Kvichak River and the proximity to Bristol Bay makes Igiugig significantly more food secure than other villages in other regions of Alaska.

Engaging with the land and one another during activities such as subsistence fishing is a key ingredient in developing a relationship between people and the environment. Hoping to instill a feeling of belonging and connection to Igiugig in its youth, the community values such activities for the cultural benefits more so than as a source of food. Even if the community has the economic resources to supply all of their food from Anchorage, engaging in subsistence activities is vital for community sustainability because of their cultural significance. Spending time with community Elders and learning about how life was for their ancestors can help the youth gain knowledge of this part of their culture and make them feel like they are a part of this culture to a higher degree. Although the youth will most likely not live lives that resemble those of their grandparents, activities and stories that relate to this lifestyle are invaluable for the sustainability of Igiugig. The community wishes to focus on such cultural activities as well as innovative solutions for sustainability in future years.

5.5 Energy and Innovation

5.5.1 Energy

In the attempt to diversify their economy and become a more sustainable community overall, the village has embraced a plan to develop alternative energy. This plan is both inspired by a desire to be less dependent on fossil fuels from an environmental perspective as well as a great need to reduce the costs connected to energy. As with food prices, the price of fuel in rural Alaska is several times higher than in the rest of the country. Besides illustrating the major price difference on food and fuel between rural Alaska and bigger U.S. cities, Gerlach and Loring's study from 2012 shows the high increase in both food and fuel prices following the 2008 fuel spikes. It also shows a lesser recovery in fuel prices in rural Alaska than in urban Alaska and the Lower-48 (Portland) (Figure 4). In October of 2011, the price of a gallon of fuel was \$6.93 in Igiugig, compared to somewhere between \$3-4 in Anchorage. In 2010 the sixty-six people of Igiugig spent around \$500,000 on fuel – approximately \$7,143 per person.

Most utility services to rural Alaska are subsidized through programs such as the Power Cost Equalization (PCE) program, the Remote Maintenance Worker (RMW) program, and the Rural Utility Business Advisor (RUBA) program with an average of 85 percent subsidies on telecommunications and water/sewer and 25-40 percent on electricity (Colt, Goldsmith and Wiita 2003, 25). However, cost of living in rural Alaska is still significantly higher than that of the urban centers, such as Anchorage. A study from 2003 found that although Alaskans in rural communities used 40 percent less energy in 2003 than Alaskans living in Anchorage, their electricity bill was twice as high. Despite consuming significantly less energy than their fellow urban Alaskans, rural residents spend up to 5.1 percent of their household income on electric, water, and sewer service, whereas Anchorage residents spend around 1.5 percent (Colt, Goldsmith and Wiita 2003, 6). A study from 2011 found that the price for a kilowatt-hour in 2008 was up to \$1 in rural Alaska compared to \$0.15 in Anchorage. In Igiugig the price per kilowatt-hour was \$0.61 in 2008. The price difference between urban and rural Alaska is both due to the remoteness of rural villages and due to the difference in what generates the electricity. Whereas rural Alaska largely depends on diesel, southcentral Alaska relies mostly on natural gas (Fay et al. 2008, 9).

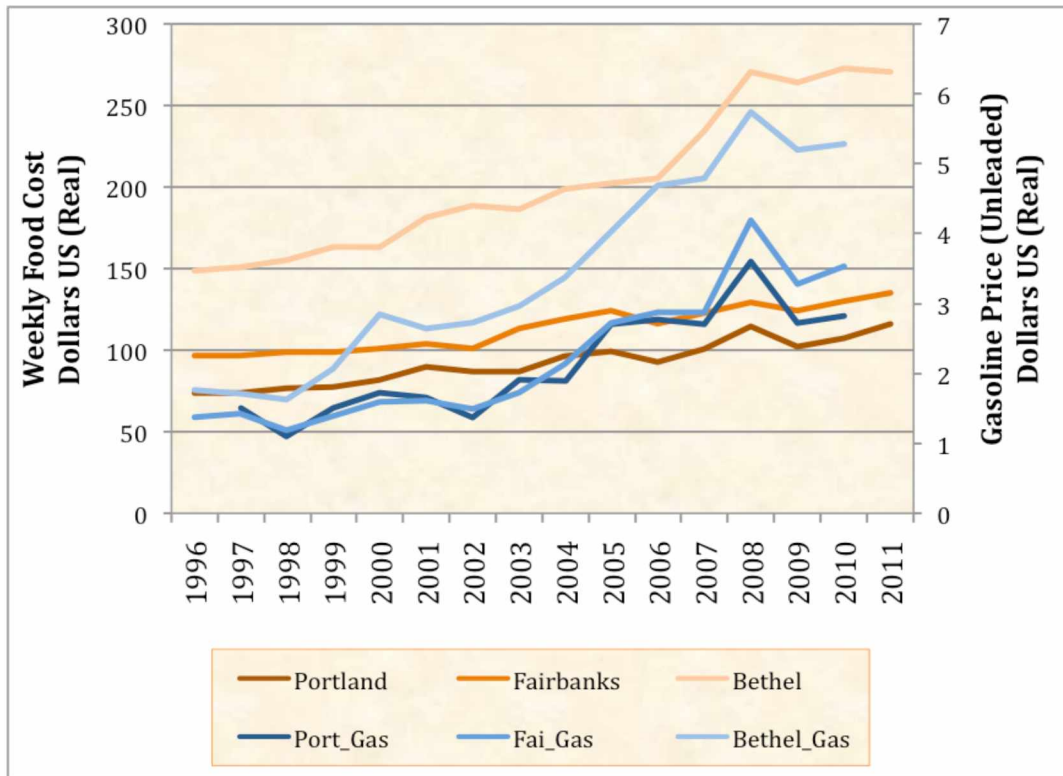


Figure 5.5: Weekly food costs for a family of four (orange) and gasoline prices (blue) for Portland, OR, Fairbanks, AK, and Bethel, AK (a rural hub community). (Source: Gerlach and Loring 2012, 24)

As becomes clear, it is especially the cost of fuel that greatly adds to the high cost of living in rural Alaska. According to a study from 2008, the general high cost of living is potentially a contributing factor to increased rural outmigration in recent years (Martin, Killorin and Colt 2008, 14). As a matter of fact, 31.6 percent of the twenty-six Igiugig residents that participated in the Bristol Bay Regional Vision in 2010 said that the high cost of living was what they thought caused people to move away from the village. Likewise, cost of energy was what most participants identified as the biggest barrier for local development projects (Bristol Bay Regional Vision 2010a, 25). Thus, there are several negative implications connected to the dependency on fossil fuel. In Igiugig it is the belief that their dependence on fossil fuels greatly reduces their ability to be self-reliant, something the community strives to become to a higher degree. This recognition has made the village reach out for innovative solutions to solve their energy problems.

5.5.2 Innovation

As described earlier, the village built a greenhouse a few years ago. As an effort to reduce the amount of food that needs to be flown in, this is also connected to the general

goal of reducing the use of fossil fuels. The electricity needed for light and ventilation in the greenhouse comes from three wind turbines located behind the building, which means that running the greenhouse is nearly free of cost (in terms of energy). The Alvarez family is the first family in Igiugig to have their own residential wind turbine, which reduces their electricity bill significantly. On a community level, the village is looking into hydroelectric power. Being located right on the Kvichak River, a hydroelectric turbine placed in the river could potentially contribute a significant amount of energy to the village. However, the science and technology for this type of hydroelectric project is still in its early stages and the project is more or less an experiment on the side of the state. The project was partially initiated by the village but is largely a state project, which means that the village's main involvement at this point is to review grant applications and write letters of support. Igiugig was chosen as a "test community" because the village happens to be located at an ideal spot on the river for this type of project. During the summer of 2011 surveyors from TerraSond surveyed the river to see if the current is strong enough for the turbine and where to put it. They estimate that the turbine can result in 25 percent of Igiugig's energy supply coming from the river.

The village is excited about the project but AlexAnna Salmon is afraid that the maintenance of such a turbine is going to be comprehensive and in their hands. In general, she says, although the village is all for alternative energy and having a diverse energy system, they need to be careful about getting too diversified (AlexAnna Salmon 2011b(II)). The more different types of energy sources the village has, the more skilled labor it needs, and as described above lack of employees is already a concern in Igiugig. The problem is not so much getting systems in place as it is the day-to-day operation and maintenance, which requires time, money, and skilled labor. The issue of utility operation and maintenance in rural Alaska is of general concern with an estimated \$2 billion in public investments at risk due to the lack of appropriate operation, maintenance, and management of electric, water, sewer, bulk fuel, and solid waste utilities in many rural communities (Colt, Goldsmith and Wiita 2003, 1). However, the limit for diversifying the energy system has not yet been reached in Igiugig and AlexAnna sees potential for the village to further pursue wind and possibly solar power in the future. The goal is to reduce the village's dependence on fossil fuels by 25 percent within the next five years (AlexAnna Salmon 2011b(II)).

Igiugig tries to support a healthy natural environment and maintain a clean village by encouraging recycling and organizing clean-up days and village-beautification days.

Whereas these efforts certainly have the purpose of making Igiugig look nice, they also relate to a foundational commitment to the environment and a respect for the land on which Igiugig is located. When asked what he likes about the culture of Igiugig, Lukas Zackar mentions that the village is clean and people recycle. To Lukas it does not only make Igiugig prettier but also increases the quality of life there. Thanks to a legislative grant, Igiugig was able to update their landfill burn unit in 2011, which has helped them become more effective in dealing with trash. They recycle aluminum cans, paper, and #1 plastic and food scraps are separated and used for chicken feed and compost for the greenhouse and potato garden. The village does not only recycle recyclable materials from Igiugig residents but also from the lodges during the summer. Each individual lodge is provided with a schedule with a designated dump day and they are given five gallon buckets for food scraps. This is an example of how Igiugig insists on having people who move around on the land and the river follow the values and rules set up by the village. If lodges do not comply with these rules, the village is able to fine them.

Ever since the houses in Igiugig got indoor plumbing in 1996, water has come from the groundwater by the means of wells. Recently, however, the EPA lowered the arsenic allowance in drinking water and it is not possible for the village to filter the water sufficiently to meet these standards. This has caused a large-scale shift back to a river water system. The Alaska Native Tribal Health Consortium is funding this \$1.5 million project and their plan is to walk the equipment out on the river during the winter. However, Igiugig residents know that the river does not freeze solid during the winter and they are afraid that the equipment will not be installed properly and that it will be up to them to deal with the repercussions. This project is similar to the hydroelectric project in that the outcome could on one hand benefit the Igiugig residents while on the other hand burden them with more maintenance of facilities. It is a general problem that grants for projects like these are not accompanied with enough funding to hire fulltime staff. Another such project is the housing improvement project. AlexAnna Salmon explains that if money is spend on hiring a manager of the project, there will be no money left to improve the houses. Because of these issues, the village administration tries to add these tasks to their long list of responsibilities. This, AlexAnna argues, is not sustainable in the long run as it threatens to burn out the administration staff (AlexAnna Salmon 2011b(II)).

Regardless of challenges such as the ones listed above, Igiugig is determined to keep on enhancing community sustainability through alternative energy and other projects

connected to self-reliance and the protection of the natural environment. This is a commitment of the community as a whole and all ideas are welcome. The ability of Igiugig to turn this into a large-scale community project is likely part of the reason for its success. Taking care of the environment is a community value that is shared by most all residents. More than half of the Igiugig residents who participated in the Bristol Bay Regional Vision survey in 2010 felt that investing in renewable energy is the best way to reduce energy costs in their community. “Conserving energy” was the second choice with more than 40 percent (Bristol Bay Regional Vision 2010a, 31). Speaking about the involvement of the whole community and the process in general, AlexAnna says:

ALEXANNA SALMON: They [the Igiugig residents] are enthusiastic but it's all new, so we're kinda all going, “well, maybe this'll work, let's try this!” So we have a lot of that going, no experts, we're just taking this from a very local, “let's try this,” and, “we'll invest in this on our own,” or, “we'll apply for grant-funding for this,” and we're piecing together what we think is working towards a sustainable community. (AlexAnna Salmon 2010, 17:39)

Traditionally, the way of surviving in Yup'ik culture was to move between semi-permanent settlements dictated by the seasons and to live off the land through hunting, fishing, trapping, and gathering. Many things have changed since Igiugig Elders, such as Mary Gregory-Olympic, lived in this manner. When looked upon from the outside, the village of Igiugig, that has embraced many “modern-day” innovations in order to enhance its sustainability, does not reflect this “traditional” way of life. However, AlexAnna argues that whereas the appearance of Igiugig might not match up with outside expectations, the values of the community and the reasoning behind their innovative approach to community development, is deeply rooted in what she refers to as Yup'ik culture. Speaking specifically about the Igiugig Environmental Program, AlexAnna says:

ALEXANNA SALMON: I think our whole environmental department, what we're doing there, that's how we're embodying all those values of taking care of your land, cause it continually provides for you. We're so conscious about it. The whole idea of recycling and reciprocating, those are all very Yup'ik values. (...) So, I would say that we uphold all those Yup'ik values in our everyday village living out there, but might not necessarily be the face of a typical [village]. (AlexAnna Salmon 2010, 28:53)

Similarly as with the question of non-Natives living and working in Igiugig, the importance is not put on appearance but on the underlying values and the overall goals of the community. In this view, programs and development endeavors that embody Native values are expressions of Native culture, regardless of their shape or form.

Igiugig's enthusiasm about alternative energy and keeping a clean and "green" village extends beyond the community. Christina Salmon, who has been in charge of the Environmental Department in Igiugig that past few years, teaches workshops around Alaska on recycling and sustainable living in rural communities. As far as villages go, Igiugig is in many ways a leader on the environmental front. The stewardship of the land and the commitment to the environment are values that speak not only to the connection Igiugig residents feel to the village and the area, but also to a belief that they can in fact be in charge of their own community and change things for the better. All the youth interviewed expressed a great sense of ownership, not only to the community at large but to all aspects of the community, from infrastructure and development projects to community goals. This sense of ownership translates into feelings of devotion and the willingness to take on responsibility. The ultimate manifestation of this is the steady return of Igiugig's youth. In the end, this great focus on taking care of the land and improving living conditions is an expression of the youth's willingness to spend their lives there as well as an explicit attempt to ensure that future generations can live there as well and lead healthy and fulfilling lives.

5.5.3 Summary of Key Points

The cost of energy in rural Alaska makes this topic a key priority when talking about rural community sustainability. In Igiugig they are pursuing alternative energy as a way to lower the cost of living in their community as well as to be better stewards of their natural environment for the benefit of future generations. There are many opportunities for rural communities to get funding for such alternative energy projects and Igiugig has been especially proactive in this regard. Infrastructure for wind power, waste management, and recycling has largely come from grants. In order to receive these grants, Igiugig residents spend a lot of time and effort developing and writing project plans and grant proposals as well as investigating what kind of funding sources they are likely to be eligible for. As with finding economic opportunities, this requires a dedicated administration that knows what avenues to go down and what resources to draw on. Many of the youth interviewed about this argued that their time in college greatly benefitted them in this process. With the increase of alternative energy and the decrease in the dependency on fossil fuels, the

sustainability of Igiugig has increased. Although the infrastructure is expensive to put in place it is a one-time payment compared to the continuous high prices of fuel that are likely to keep rising. Being less dependent on fossil fuels makes Igiugig less vulnerable to oil prices set thousands of miles away and enables them to plan for the future, since they to a higher degree know and can influence their situation.

Although greenhouses, wind turbines, and hydroelectric turbines were not part of a traditional Yup'ik way of life, the values of self-reliance and environmental stewardship were and these are still the values of Igiugig today. Because life and the challenges villages have to deal with are so vastly different today than they were when Igiugig Elders were growing up, the solutions that match these challenges also have to be. For Igiugig residents it does not seem to matter what the solution “looks like” as long as it follows the values of the community and enables the residents to live healthy and satisfying lives. How the community reaches its decisions about such things will be illuminated in the following, and last, theme.

5.6 Political Sovereignty and Communication

5.6.1 Political Sovereignty

That Igiugig is an unusual community is potentially most visible from its face to the outside world: three young women in their mid to late twenties. Although the village is largely behind everything that goes on in Igiugig, it is the Salmon sisters, Christina, AlexAnna, and Tanya, who deal with the day-to-day work of running the village and orchestrate events and projects. Talking about the difficulties of stepping into the role as the administrator at the age of twenty-three as well as the collaboration between herself and her community members, AlexAnna Salmon says, “There will always be people saying, ‘well, she doesn’t really know what she’s doing,’ and that’s a very good observation cause I was just thrown into this position! I really don’t, I relied on a lot of people who have lived here longer than I have to tell me what to do” (AlexAnna Salmon 2011a, 57:30). That there is good communication between the village administration and the village residents is a fact confirmed by all people interviewed. This does not mean, however, that people do not disagree at times. Speaking about the youth taking over the village administration, Mike and Dallia Andrew say:

DALLIA ANDREW: Now we're teaching them young girls like Christina, Tanya, AlexAnna, we told 'em, "you guys gotta took over, we can't work forever, some days we might be, get too old, can't do stuff." Now they taking over them young guys. (...)

IRMELIN GRAM-HANSEN: Mm. Do they listen to you?

DA: They listen to us but they talk back to us once in a while but we get up and, "we try to tell you what we know, you guys down have to [listen]!" I just like that about these guys!

MIKE ANDREW: We try to tell them how we run cause they're getting up there, we're going down, we're getting old, we want them to take over, that's why we trained them younger, but sometimes young get smart with us, they shouldn't do that with Elders! We know! So we let 'em try to run like we run it. So...

DA: They're getting learn slowly though. We gotta get after them once in a while, you know, tell them what so, what we use to do and all that stuff.

IGH: Aha. You think they know Yup'ik values, they follow Yup'ik values?

DA: They should be know little bit Yup'ik values but they don't know how to talk Yup'ik, nobody hardly teach them, that's why. (Dallia and Mike Andrew 2011, 15:03-18:21)

Although Mike and Dallia see the youth taking over as something inevitable, they still want to be able to have a say in how things are run and make sure the village continues to uphold the values cherished by the Elders. As Dallia says, although the youth are learning how to run the village according to Yup'ik values, none of them speak Yugtun and therefore, in her eyes, they lack an important aspect of the culture. When talking to AlexAnna about Yugtun language skills, she refers to the choice that her parents and grandparents were faced with when ANCSA was passed: in order to succeed in this new world order, the village was going to have to play by the rules – and these rules were written in English. According to AlexAnna, focusing on English and largely leaving out Yugtun was a conscious choice of her parents and grandparents. Not having learned Yugtun simultaneously with English is something she regrets today and she wishes for her own children that they learn Yugtun from her mother and grandmother (AlexAnna Salmon 2010).

In AlexAnna's opinion the Elders of Igiugig made a conscious decision to leave out Yugtun when raising the current generation of youth. This can be viewed as a sign of openness and an ability to respond to change in a way that correlates with the community's

needs and capacities. When asked about whether or not the youth listen to their Elders on how to run the village, Elder Mary Gregory-Olympic says:

MARY GREGORY-OLYMPIC: I just tell 'em, "you guys have to try like, like me. [Un-auditable] back up, when you back up you can go forward after, you have to forward all the time, better way."

IRMELIN GRAM-HANSSSEN: Mm. Does that mean you have to change?

MGO: Mm. Keep on go.

When AlexAnna came back to work as the administrator, Mary's sister, Dallia Andrew, who had until then been the president of the Igiugig Village Council, stepped down and let AlexAnna take on that position. As expressed in the quote above, Mary sees a clear connection between wanting to move forward and prospering as a community and having to embrace change in the process. In her bachelor thesis, AlexAnna refers to the Yup'ik principle of *upagluteng*, "in order to survive one must always be ready to move, ready for the seasons, and ready for change" (Salmon 2008, 161). However, not all change that has occurred in the village and the way it is run is equally good in Mary's eyes.

MARY GREGORY-OLYMPIC: Yep, old-timers said you have to listen oldest people, better way. But you don't have to listen young one!

IRMELIN GRAM-HANSSSEN: But now the young ones are in charge!

MGO: Yeah! Now these days they follow the paper too much. They have no paper, I don't know what they gonna do. (...) Paper, paper, paper, that's all. (...) Without that paper they gonna say nothing. When we got meeting to council meeting, "no paper?" (Mary Gregory-Olympic 2011, 38:05)

Mary obviously does not care much for the amount of paperwork it takes to run the village as well as what the paperwork implies: rules. This is something ANCSA to a large extent brought along with the corporate structure. AlexAnna is also not happy with the paperwork and a main reason for wanting to slow down on community projects and upgrades is that the paperwork connected to such endeavors is overwhelming; they simply cannot keep up, at least not without hiring more administrative help. When asked about what could make running the village easier and enhance community sustainability, AlexAnna mentions reducing the amount of paperwork as a main issue. Generally speaking, she finds there to be too much oversight and reporting, especially with water, electricity, and fuel (AlexAnna Salmon 2011b(II)). In 2003 a study was done on the operation and

maintenance of utility service facilities in rural Alaska (Colt, Goldsmith and Wiita 2003). The study showed that one reason for less than adequate returns on investments from these facilities is the inability of the rural communities to sufficiently comply with regulations, some of which are connected to reporting and regulating. This, the study further concluded, is connected with a general miscommunication between tribal governments on one hand and state and federal entities on the other. Furthermore, this can be seen as the inability of the state and federal systems to allow rural communities to govern themselves. Speaking to this issue specifically, the authors of the study conclude:

Sustainability is as much about cultural survival as it is about economics. Therefore, manner in which services are delivered and by which communities develop their general capacity for self-governance is equally, if not more, important to long run sustainability than the achievement of some predetermined standard of conduct or performance by a utility entity. (Colt, Goldsmith and Wiita 2003, 14)

Part of the reason for the many regulations and the monthly reporting is due to the many levels of governance in Alaska. For any village project to get approved or receive funding it has to go through the tribe, the village corporation, the municipality, the borough, the regional corporation, the state, and sometimes through federal agencies as well. The management of lands, resources, and government programs falls in the jurisdiction of a variety of governmental entities and the communities have to navigate the structure and bureaucracy of these entities in order to get anything done. On top of the issue of division in governance comes the ambiguity of some parts of the legislation pertaining to Alaska Natives, such as ANCSA. The result of this is often that the communities find themselves in situations where they are incapable of governing themselves (Cornell et al. 1999, 32-37).

It is well documented that entitlement and the ability to govern oneself is a key component of community sustainability and self-reliance. How to follow through in this is less well understood. According to a 1999 Alaska Federation of Natives report on Native self-governance in Alaska, self-governance is necessary for Native communities to improve their socioeconomic conditions and deal with their social problems. The report found that the way in which the state currently deals with Native governance threatens to undermine the ability of the communities to do so. The study further concludes that whereas "Native self-governance is not the whole answer to Native problems (...) it is a necessary component in achieving sustained economic development, in overcoming virulent social problems, in reducing financial burdens of social welfare programs, and in restoring health and dignity to

Native communities” (Cornell et al. 1999, 7).

Feelings of dignity and pride were mentioned by some of the youth in their description of Igiugig. That Igiugig is viewed as a “proud community” is likely caused by the community’s ability to govern themselves and its determination to rely on their own resources rather than being dependent on state and federal subsidies. According to the Alaska Federation of Natives report, the ability to govern oneself is the starting point from where many other solutions can develop. In Igiugig, this is well understood and the village is continuously trying to improve their ability to govern themselves, largely by enhancing their self-reliance. That self-reliance can enhance sustainability is also clear to many of the organizations and corporations in Bristol Bay. In 2010 the Bristol Bay Native Association (BBNA), Bristol Bay Native Corporation (BBNC), Bristol Bay Economic Development Corporation (BBEDC), Bristol Bay Housing Authority (BBHA), and Bristol Bay Area Health Corporation (BBAHC) established the Bristol Bay Partnership and initiated the Bristol Bay Regional Vision, whose goal is to enable the villages in the Bristol Bay region to define their needs and goals. The hope is that this process will work to make communities come together and set visions for their future as well as for the regional organizations and corporations to better serve each village individually. Nearly 1400 residents from the Bristol Bay region participated in the two rounds of meetings that were held in twenty-six communities in 2010 and 2011 (Bristol Bay Regional Vision 2012). AlexAnna Salmon is one of eight local commissioners on the project. Also, in early spring of 2012 Igiugig was chosen as one of a handful of villages to participate in the Alaska Native Science Commission’s (ANSC) Community Partnership for Self-Reliance and Sustainability project. In partnership with University of Alaska Fairbanks (UAF) researchers, the community will work on identifying the areas in which it is most vulnerable and what change it would like to see. Based on this village-set agenda, research will be planned and conducted that aims at meeting these goals. This is one way that research can be done on the terms of the community rather than that of outside researchers. Both the BBRC and the ANSC projects acknowledge that sustainability is context specific and that the people living in a given place have to be the ones who define the values and goals of the sustainability efforts.

The people of Igiugig seem confident that they are in fact capable of running their own village and creating a healthier and more sustainable community. All of the twenty-six Igiugig residents that participated in the Bristol Bay Regional Vision survey in 2010 were convinced that they would be able to “live healthy and productive lives” in Igiugig in the

coming twenty-five years (Bristol Bay Regional Vision 2010a, 9). The people of Igiugig are overwhelming confident that Igiugig will keep on prospering and they are determined to enhance the community's sustainability in the process. This determination and confidence is likely part of the reason for the community's continuous positive development and the dedication of the people who live there.

5.6.2 Communication

Running the village is about communication: communication between the village and the state, between the Igiugig Village Council and the Igiugig Village Corporation, as well as between the individuals of the community. When the nineteen Igiugig residents who participated in the second round of the Bristol Bay Regional Vision survey in 2011 were asked whether communication and collaboration between the various levels of village government and village residents prevented village projects, the vast majority answered "no" (Bristol Bay Regional Vision 2011a, 21). Out of the ten possible things to change in their community, the twenty-six Igiugig residents participating in the 2010 survey put "disagreements or division among people in the community" at the bottom of the list (Bristol Bay Regional Vision 2010a, 10). This is different from the overall score among all the communities that participated in the surveys, where this issue was chosen as third most important to change (Bristol Bay Regional Vision 2010c, 3).

The good communication in Igiugig also extends to the everyday interactions between people in the community. Speaking about her father, Alexi Gregory, and how he influenced the way she is today, Elder Mary Gregory-Olympic says, "Yeah, he talk to us about this... That's the way I am now. Whenever I don't like the people what they do, I just tell them, front up right in the face. Better way. (...) Never mind keeping it, just [motion with hand away from herself], better, that way good. Some people can't tell nobody nothing. Different, I think that's why" (Mary Gregory-Olympic 2011, 41:50). Mary's daughter, Julie Salmon, says she grew up in a family and a community where people communicated well and because of that she has always been comfortable expressing her opinion. In her experience, giving praise and guidance is crucial when wanting to raise happy and healthy children. Speaking specifically about how things are different in other communities where parents do not communicate well with their children, she says:

JULIE SALMON: You treat people how you wanna be treated. There's no more of that thing I think also. They're so mean to them [their children], you know, negative

words, not happy about them. And so these little kids grow up alone, they learn to be mean; they learn to defend themselves. "You're not accepted until you do..." I don't know, whatever, like that. They come of age, they go off, running around wild, they come back, rather than helping out, rather than being nice to people they're in to drinking and alcohol and guns and knives and fighting, some meanness comes out, and people can't understand. I feel like saying to them, "hey you people! Can you guys open up you guys' eyes and say, I do not communicate to these young people, I do not encourage them, I do not praise them, I treat them like dogs, so this is the result I get!" I think that's what it is, isn't it? I'm a thinker, we always like to, stuff like that, try to understand. But I think that's what it is but I don't wanna tell them people that, "it's you guys' fault, you adults, you guys lost you guys' Elders and you guys never continued what the Elders were taught, you know, talk and..." (...) So it goes to show there's no communication, there's no care, I think lots of it is too, "I love you," you know, just to say it and, things like that. Too many negative stuff make people don't know how to live, I think. So they look for [un-auditable] and lots of alcohol problem.

IRMELIN GRAM-HANSEN: Aha. And do you think it's different here in Igiugig? There's better communication?

JS: Yes! Communicating, we've always been communicating ever since we've been small. (...) We're comfortable, we just mind our own business, of course we have squabbles, we have disagreements and things like that but we express them and, I think, I don't know, we're just verbal, we're just talkative, just use to it, cause we grew up like that. (Julie Salmon 2011, 37:12)

In this quote Julie addresses the issue of ill adapted youth and how it can result in various forms of abuse and what she calls not knowing "how to live." This is a big problem in many rural communities and something that dominates the news on rural Alaska in mainstream media through statistics on alcohol and drug abuse, violence and sexual abuse, depression and suicide, and various health issues. Julie makes a direct connection between these problems and what she sees as a lack of communication between the youth and their adults and Elders. In her interview, Martha Crow tells of an experience she had as a child that speaks to the relationship between parents and their children. While visiting friends in a nearby village, a resident of this village told his child that he had no money to give her for candy even though he had a big pile of money on the table in front of him at a rummy game.

In Martha's opinion this severely damages the integrity of the parent and creates a break in the trust between parent and child. In Igiugig, Martha says, they do not play rummy.

Generally speaking, the problems described above are largely absent in Igiugig. Of course, the community has its share of social problems, but none are of the proportions of many other rural communities. This is exemplified by the answers given at the Bristol Bay Regional Vision survey in 2010 where "alcohol/drug abuse and/or fear of domestic violence" was put as the sixth most pressing problem out of ten in Igiugig (Bristol Bay Regional Vision 2010a, 10). In the overall consensus for all the communities participating in the surveys this issue was identified as the most pressing problem out of ten (Bristol Bay Regional Vision 2010c, 3). Dan Decker Sr. has been the Village Public Safety Officer (VPSO) in Igiugig since 2008. After nearly twenty years working as a VPSO in rural Alaska, Dan says Igiugig is different from anything he has experienced before. During the past two years he has had to do four arrests, two of which were people from outside the village. This stands in stark contrast to what he has experienced in other communities.

DAN DECKER SR.: [What] my job mainly consists of here is making sure that people know I'm here. I patrol and those types of things, and finding and writing grants, and community granted policing, you know, going up to the school and talking with the kids. And it's really cool because I'm not chasing bad guys around all the time and I'm not, you know, twenty-five reports behind because I can't catch up because I keep generating more. So this community... don't get me wrong, people drink here, and it's not a big deal. The people who drink stay at home; when they do drink they maintain themselves. Very seldom do I get called out for alcohol related stuff here, which is great because, you know, I spent the past eighteen years, you know, sleeping with one eye open waiting for the phone to ring and I don't have to do that here. I can actually go to bed at night and really not worry about who's gonna be calling me out to go and take care of something. And it's kinda liberating, I mean I'm not stressed out and I don't have the worries I would normally have. My worries consist of now is if my coffee's gonna be ready when I come to my office, you know. (Dan Decker Sr. 2011(II), 1:32)

When someone in the community breaks the law, the people of Igiugig blame that person rather than taking their frustration out on the law enforcement, and in Dan's experience this is very unusual. Dan's family is also very content to live in Igiugig and his

children and wife have had an easy time finding friends, something that can be difficult when you are related to the local police.

Igiugig is a “wet” village¹⁴ and, as mentioned by AlexAnna in relation to the community’s focus on youth, most of her parents’ generation has been in contact with alcohol at an unhealthy level at some point in their lives. Although alcohol is a problem in some households it is not an overall community problem, largely because the consumption of alcohol is kept at home. According to INC’s general manager, Jerry Liboff, the absence of a community alcohol problem in Igiugig is also connected to what Mary and Julie talk about in their interviews: the good communication between people and the lack of fear of confrontation. During a conversation with Jerry, he told a story that according to him is significant in this regard. About fifteen years ago, a man staying in Igiugig got very drunk and got out of control. He went around in the village and shot his gun up in the air and threatened to hurt people from the village. A handful of men got together and pinned him down and put him in the VPSO cell for the night. The next day he was transported to King Salmon where he was in prison for two weeks. When he came back to Igiugig the Village Council held a meeting where everyone in the village decided that he was to be presented with an ultimatum. They sat him down and told him that if he ever did something like that again they would ban him from using any of the village land. This would mean that he would be landlocked in his home and only be able to go down to the river and to the airport. He never did anything like that again and, as far as Jerry is aware, neither did anyone else.

Besides addressing the positive affects of welcoming confrontations when necessary, Jerry’s story also addresses the way in which decisions are made in Igiugig. In Igiugig, they strive to have full democracy and decisions are not made by majority vote but by consensus. If someone is not happy with a proposition it will be discussed until everyone can reach an agreement. Accountant for IVC and long-time Igiugig resident, Sandy Alvarez, explains how the decision-making process works in Igiugig and how it affects the social dynamics within the village:

¹⁴ In Alaska, regulation on the sell and consumption of alcohol is different from community to community. Communities where both the selling and consumption of alcohol is illegal are referred to as “dry”; communities where consumption is allowed but selling is illegal are referred to as “damp”; and communities where both the consumption and selling of alcohol is allowed are referred to as “wet.”

SANDY ALVAREZ: The Village Council and the community as a whole, probably during the whole time that I've been working for them, I'm always the one writing the meeting minutes, there's not a single time where we voted on something and there was like two-four or one and three against. We've always worked for consensus, which I think is the old Native way, like if we can't agree then we just won't do it. But that's pretty much the way we still run the village, you know, if there's a project that comes up and someone's really against it, you know, we either redraw it or find out what it is that they don't like about it, you know make it palatable for everybody or we, you know, just don't pursue it and I think that spills over into the whole ambiance of the village (...) It gives everybody an attitude that we work together. (Sandy Alvarez 2011(II), 1:28)

Sandy knows of other communities where interpersonal conflicts and lack of communication stands in the way of positive community development. In Igiugig they try to overcome such issues by involving everyone in decision-making at the community level. This has also been the case when the community has had to define their values and goals guiding community plans and projects.

ALEXANNA SALMON: If you stop to look at the day-to-day, what it takes to run the village and you look at the community plans and community vision, you'll see that the community is behind, you know, the community is working together, that's the vision of the community and what we're doing in our day-to-day, that's what they've wanted. So we still sit together and plan, the monthly meetings or whatever are still very traditional, especially in voting, that we don't make a stand unless we're all happy with what we're voting about so that there's no division in our community and that our organizations work together very respectfully cause, you know, [we don't want to] have a power play out here, it's like, "what is best for the community?" (AlexAnna Salmon 2011a, 18:50)

Beside the monthly Village Council meetings where the day-to-day running of the village is discussed and projects are decided upon, the community gets together every ten years to revise their community plan. This plan ensures that the community is on the same page about the broader values and overall community goals. It also is a helpful tool when applying for grants, since most federal agencies require detailed plans before money can be allocated. In the quote above AlexAnna also addresses the need for good communication between the Village Council and the Native Corporation to ensure that the two main entities

in the community are on the same track. In Igiugig, the boards of the two entities are made up by nearly the same residents in order for this communication to be as direct as possible. This is one way to eliminate some of the division of governance referred to earlier in this section. The boards consist of Elders, adults, and youth and anyone who is an Igiugig Tribal resident and /or shareholder can serve on these boards.



Figure 5.6: A family get-together in Mary Gregory-Olympic's home. From left to right: Avery, Tanya, Terek, Keilan, AlexAnna, Christina, Dannika, Mary, Dolly-Ann, Erika, Martha, and Aiden.

Good communication skills are a part of good leadership skills in general and the importance of individuals that possess these skills should not be underestimated. The people in the current administration in Igiugig possess these skills. When disregarding what Igiugig has “got going” for it, such as a rich natural environment and significant economic resources, what makes Igiugig a strong and healthy community is the people who live there. Speaking specifically about renewable energy projects in two neighboring villages, AlexAnna says, “Under the right leadership it will happen in any community” (AlexAnna Salmon 2011a, 1:08:43). AlexAnna introduces the idea of “hidden” community resources, available for community residents to discover and foster. She also, however, suggest that

such endeavors need to be led by the appropriate leadership, which indicates that it has a lot to do with the personalities of individuals.

The former village administrator and the father of the five Salmon siblings, the late Dan Salmon, was mentioned in nearly all the interviews with the youth, either as a personal mentor or as part of the reason for Igiugig's success. Dan was born and raised in upstate New York and came to Igiugig in the 1970s as an Alaska Department of Fish and Game employee. He fell in love with the place and the people and eventually married Julie Salmon and settled down in the village. Dan started working for the village and his ideas for improving the community were greatly appreciated, despite some initial suspicion that an outsider might not be able to make any positive change. After a few years he became the village administrator and it was during these years that both the barge and ILC were established. Dan's leadership abilities are what many of the interviewees mention when talking about the development of Igiugig during the past twenty years. Dan was the village administrator for twenty-five years up until his untimely passing in 2007. The memory of Dan remains a source of great inspiration for many Igiugig residents. This provides an example of just how important leadership has been and continues to be in Igiugig's efforts to become a more sustainable community. When asking AlexAnna about her father and whether or not Igiugig can be considered "his village," she says:

ALEXANNA SALMON: No, he worked for the people, he never could serve at the capacity that I am because I am a Native, but he wasn't here to settle, you know, settle Igiugig, he didn't have the cultural connection to it, so in that sense it wasn't his. But in the sense that everything here worth living for was brought here by him and if it was not for him and him only I wouldn't even be serving here, I would just move on. It is not my cultural ties to this community that's keeping me here at all, it's a big benefit but the reason that I'm here is because he is my dad and my mentor and whatever else but he also is, as a leader of a place he's, you know, he's one of the greatest leaders I've ever, you know, I put him up there with some of the old historical figures cause that's what he is for Igiugig. And I recognize that without the right leadership it could just crumble and it took decades to build what we have and it's taken the people we have in the community to build what we have and without one strong central figure or one strong central organization it could easily crumble and I cannot let that happen. So I wouldn't say it started out as his, you know, definitely not his community, he was careful with what he did because he did not

belong here but at the end of the day no one worked harder and dedicated themselves more to everything Igiugig has and he brought all the tools that he knew from the outside to help from the inside. We were one of the first organizations to start talking about tribal sovereignty, “we can do this, we are a sovereign tribal government,” or that, “we need this to live out here in our community.” Before it was just, “rural Alaska’s out there to, you know, take resources from and rule from a far,” and he made this community, like, it’s own, to recognize its own local power. And I am a very big tribal government enthusiast! And so I recognize that what we have is so unique and so special but yet can, if you don’t keep that spirit alive it doesn’t take long to just lose it. (...) And you have to keep maintaining it, it could just be a matter of a change in federal administration or whatever happens that suddenly you’re not as powerful as you were and (...) it just seems like you have to maintain that and that is why I am here doing this now is because of him, otherwise I would be off doing something completely different and I would just enjoy the highlights of Igiugig, I would come back only, you know, to put up fish, maybe come back to visit in the winter at Slavi time, I’d only come back for those and that would be it.
(AlexAnna Salmon 2011a, 36:15)

In the above quote, AlexAnna speaks to the influence of her father, not only on the village but on her life as well and her choice to return to Igiugig to make sure it remains a good community. Dan Salmon happened to be the kind of personality that, through his devotion and character, was able to make the community stronger. Looking at this from a sustainability sciences perspective where the goal is to understand and design for sustainability, the issue of personality is difficult to work with as a variable because of its inherently subjective nature. However, what can be “copied” is a conscious attempt to foster a culture of communication and mutual respect between community members, and especially between generations. This could be a focus in school but more importantly it should be a focus in the day-to-day life of people in the community. Likewise, AlexAnna addresses the immense importance of tribal sovereignty. Dan helped the people of Igiugig recognize their strength as a community and assert this strength in a way that allowed for enhanced sovereignty and ultimately enhanced sustainability as well. It is likely that this strength is present in most all communities but that it takes a particular kind of person to bring it out into the open and organize it to a point where it can form the foundation of positive community development.

For AlexAnna, wanting to keep the legacy of her father alive is a main reason for her dedication to Igiugig. However, being the child of Dan Salmon also comes with some challenges especially in relation to the expectations of the community. According to Christina Salmon, the example her father set has helped her throughout her life to accomplish what she set out to do, but it has also been a challenge at times. Speaking about the ups and downs of running a village, she says:

CHRISTINA SALMON: I've learned to accept the fact that everyone is not going to be happy all the time, there's always gonna be the Negative Nancy who complains about the work the council's doing. We're a three-man show, we're a three-women show, we can't keep everybody happy, we never will be able to, otherwise we won't be happy. And we used to try, like, "oh man, so-and-so is unhappy. Let's run and fix whatever and then they'll be happy again." And then you spend so much time putting your energy in helping and keeping everyone else happy that you're miserable. We've all been through that and then it just got to a point where, well, after we lost our dad it became, "you know what, he did everything for everybody and somehow he was magic like that, and we're not Dan Salmon's, we never will be. So, find somebody else to be your hero." We just, we couldn't, and people used to always say, "your dad would," or, "your dad would do it like this." You know what, my dad's not here. And we've had to learn by our own how to run a village. You know, how many twenty-three to twenty-eight year olds do you know who run a village? (Christina Salmon 2011(I), 21:44)

To this rhetorical question one can only answer: not many! Running a village is not an easy task, regardless of one's leadership abilities and authority within the community. Being a young village administration has its challenges and advantages. One of the advantages is the keen awareness of what goes on in the state and in other communities caused by the young people's relative recent exposure to life "outside" through schooling or training. The Igiugig youth who are in their twenties seem to understand the importance of local sovereignty, and by having a uniquely innovative and creative approach and utilizing their connections to the outside they are able to find ways in which to assert this sovereignty. Having less leadership experience and general life experience can be a challenge for the young people running the village, but in Igiugig this is dealt with through continuous communication and collaboration between the residents across generations. A community culture that values

and makes room for good communication is on many levels one of Igiugig's greatest strengths and it enables them to further enhance their community sustainability.

5.6.3 Summary of Key Points

The ability to rule oneself and define the terms on which one lives is of immense importance to the success of community sustainability efforts. As mentioned in previous themes, the current reporting and record keeping requirements placed on tribal governments is overwhelming for the village administration. Managing the energy supply and other infrastructure such as water and sewer comes with a tremendous amount of paperwork and without the extra funds for operation and maintenance the work connected to this paperwork is often placed on the desk of the administrator. The necessity of this degree of reporting is questionable and it points to the problem of entitlement and the ability to govern oneself. Since the state and borough largely finance this type of infrastructure it is reasonable that these entities also require a certain amount of recordkeeping from the communities. However, the amount of reporting and recordkeeping required currently constitutes a major burden for the Igiugig Village Council and makes taking up new projects less feasible.

It is likely that Igiugig would be even further in their efforts to enhance the sustainability of the community if they were given more local decision-making power. Likewise, the lengthy process of obtaining infrastructure for alternative energy is potentially preventing other communities from pursuing such development. The lack of political sovereignty results in a lack in decision-making power and a general inability to respond to change in a way that will enhance community sustainability. Villages need to be shown the trust that will enable them to take charge of their own development. This trust should not be misused, of course, but until tribal governments are given the possibility to govern themselves, they are unlikely to live up to the requirements and expectations set by the state and boroughs. Generally, it is important that the communication between tribal governments and the state fosters an understanding of the conditions under which the tribal governments work.

Equally important is the communication between the tribal government and the village residents as well as between residents among themselves. Defining community values and goals and deciding on community development issues based on these values and goals is key to fostering a community where conflicts and social problems are kept at a

minimum. Although having everyone in the community agree on an issue before it is decided is time-consuming, the result will most likely be a community that stands together in a higher degree than if decisions are made based on majority rule. The decrease in interpersonal conflicts is likely to result in a decrease of a variety of social problems. Social problems are a main source of vulnerability in rural Alaska and eliminating these problems will not only enhance the strength of the community but also the health of its residents.

A part of Igiugig's strength is found in the personality of individuals. Whereas certain kinds of personalities are difficult to "develop" or "plan for," the general attitude of love and respect for one's community can be fostered, especially in the children and youth. The importance of praising and supporting the new generations, both on an individual level and as a community, is undoubtedly the most important ingredient in fostering healthy and happy children that grow up to live satisfying lives. Whether this means staying in their home community or leaving for good is not something the village can decide on behalf of its youth. However, as described throughout the analysis, the community can make the conditions in the village as attractive as possible and accommodate its youth. Igiugig's sustainability efforts have enabled the community to enhance its strengths and reduce its vulnerabilities. Whereas "full sustainability" is likely never achieved due to the changing nature of this emerging property, Igiugig is currently a community where people lead healthy and satisfying lives. With a little luck, people will continue to do so in the future.

5.7 Summary of Findings From the Analysis

Below is a table (table 5.1) summarizing the findings from the analysis. The findings are organized according to two categories following the guidelines for vulnerability analysis: strengths and vulnerabilities. Together with a third category of possible solutions and strategies, these two categories can lead to an understanding of the sustainability of Igiugig.

Specific issue	Identified strengths	Identified vulnerabilities	Identified possible solutions / strategies
Theme 1: Population and the connection to the outside (page 49)			
Small population size	<ul style="list-style-type: none"> - People know and care about each other - Safe place to live - There are more opportunities for every resident 	<ul style="list-style-type: none"> - In danger of school closure - Too few people to occupy all available jobs - Boredom which might result in outmigration and various social problems 	<ul style="list-style-type: none"> - Creating opportunities for residents to go "outside" - Providing training and educational opportunities - Growing bigger families - Attracting outsiders with useful skills - Possibility of home schooling
Connection between the village and the outside	<ul style="list-style-type: none"> - Helps to keep people "sane" - Gives the youth an understanding of how unique Igiugig is - Gives the youth a broader outlook - Gives the youth a network that they and the community can draw on 	<ul style="list-style-type: none"> - Once they experience life "outside" they might not want to return - Most of the youth do not imagine themselves living in the village for the entirety of their lives 	<ul style="list-style-type: none"> - Living in Igiugig seasonally - Leaving for some years to go explore other opportunities and places - Coming and going, but continually keeping a tight connection to the community
Theme 2: Education and the focus on youth (page 64)			
Emphasis on education	<ul style="list-style-type: none"> - Good teachers - Community support - Education can help develop necessary skills 	<ul style="list-style-type: none"> - Education draws youth away from the village (lack of relevant jobs) - Various challenges upon return to the village 	<ul style="list-style-type: none"> - Developing a Native (or relevant) curriculum - Securing jobs for the youth when they return
Making the youth stay / return	<ul style="list-style-type: none"> - Having mobile young people can help the community find new solutions and gain access to other avenues for community development 	<ul style="list-style-type: none"> - The youth are not a reliable part of the village work force - It is impossible for the village to control where they youth will go 	<ul style="list-style-type: none"> - Accommodating the youth to the extent possible - Incorporating the youth in community planning and decision-making - Being open to the ideas of the youth - Providing jobs, internships, and looking for positions outside the community - Providing loans for youth to start their own businesses

(Table 5.1 continued)

Theme 3: Economy and the openness to change (page 81)			
Many jobs	<ul style="list-style-type: none"> - There is a job available to anyone who wants to work - If residents get bored with their job they can try something else for a while (diverse job opportunities) - The economy attracts outside resources 	<ul style="list-style-type: none"> - Too much work and too many responsibilities for a handful of people - Risk of burn-out 	<ul style="list-style-type: none"> - Providing training for residents to improve their capability to take on responsibilities - Making it feasible for young people to return and take over high positions - Hire outsiders
Diverse economy	<ul style="list-style-type: none"> - Less vulnerable to changes or sudden shocks in the economy of any one area - More jobs 	<ul style="list-style-type: none"> - Too much work for a few people overseeing every project - Every business and project idea is connected to a large amount of paperwork which is taxing on a few individuals - Being too diversified can increase vulnerability 	<ul style="list-style-type: none"> - Finding the right balance between a diverse economy and a strong focus - Planning on doing fewer projects but focusing on a few important projects in the near future
Open to change / outsiders	<ul style="list-style-type: none"> - When it follows community goals and values, change and innovation can have a very positive effect - Being Native is about a worldview rather than blood quantum - By being open to change, the village has more resources to draw on to help it cope and develop - Sport fishing lodges provide a significant amount of income - Outsiders bring new energy and ideas 	<ul style="list-style-type: none"> - Not all change is controllable - The relationship with the lodges is not always without problems (conflicting values) - The change in focus from Yugtun to English has resulted in none of the youth speaking Yugtun 	<ul style="list-style-type: none"> - Clearly defining their goals and values and judge every change on this basis - Improving tribal government structure to be able control as much of the outside influence as possible

(Table 5.1 continued)

<p>Pebble Mine</p>	<ul style="list-style-type: none"> - Provide jobs - Offer grant opportunities 	<ul style="list-style-type: none"> - Environmental risks - Might make it less attractive to live in the area - The community is not in control and has little to no decision power 	<ul style="list-style-type: none"> - The village is neutral on the matter and has benefited from Pebble grant money, but they do nothing to support Pebble - Opportunistic approach - Residents participate in anti-Pebble activities
<p>Theme 4: Food and the relationship with the land (page 100)</p>			
<p>Food security</p>	<ul style="list-style-type: none"> - Rich environment (especially salmon) - Food programs - Sharing - Attempts to strengthen the local food system (e.g. greenhouse) - Daily flights to Anchorage and a semi local expediting service - Comparatively low food insecurity 	<ul style="list-style-type: none"> - Rising fuel prices affects subsistence activities and food flow in - Young people are generally less able (time and skill) to engage in subsistence activities than their grandparents - Too dependent on outside food sources - Food security efforts hindered by state regulations 	<ul style="list-style-type: none"> - Working on improving their local food system - Affecting legislation to enable local solutions
<p>Connection to place and people</p>	<ul style="list-style-type: none"> - Creating a sense of belonging through time spend on the land and with each other -Teaching the youth about their history and traditions - Strengthening relations between the youth and their heritage through interactions with elders and time on the land - Most of the youth live in Igiugig because they chose to 	<ul style="list-style-type: none"> - Difficult to combine a busy life with values of sharing and helping each other 	<ul style="list-style-type: none"> - More focus on cultural aspects of sustainability (e.g. culture camps, trips, a community house, language revitalization program)

(Table 5.1 continued)

Theme 5: Energy and innovation (page 115)			
Energy	<ul style="list-style-type: none"> - Innovative solutions (wind turbines and hydro electric turbine) - Many opportunities to pursue innovative development 	<ul style="list-style-type: none"> - Dependency on fossil fuels - High cost of living - Overwhelming amount of reporting - To many different solutions are taxing on the administration 	<ul style="list-style-type: none"> - Developing innovative and alternative solutions further - Gaining more local control over utilities
Theme 6: Political autonomy and communication (page 121)			
Self-determination	<ul style="list-style-type: none"> - Strong tribal government and many resources inside and outside the community - keeping the decision-making power locally 	<ul style="list-style-type: none"> - Record keeping and reporting requirements are draining and prevent other projects from getting under way 	<ul style="list-style-type: none"> - Develop their tribal government further and enhance their ability to form their future
Communication	<ul style="list-style-type: none"> - Good communication between the Village Council and the Village Corporation - Welcoming confrontations when needed - Decisions by consensus - Community planning and envisioning with all residents 	<ul style="list-style-type: none"> - Difficult to find an equal distribution of workload and decision-making between residents - Difficult to satisfy everyone 	<ul style="list-style-type: none"> - Focus more on open communication and articulation of wants and needs so that the community stands together on as many issues as possible - More activities bringing together residents, especially youth and elders

Table 5.1: Overview of findings from the sustainability analysis, categorized by strengths, vulnerabilities, and possible solutions.

6. Discussion and Conclusions

Through the analysis we see the ways people of Igiugig work to enhance the sustainability of their community. The analysis indicates that community sustainability in Igiugig is about designing innovative solutions to issues of food and energy, as well as about instilling a feeling of belonging in the residents and especially the youth. This feeling of belonging is fostered by including all residents in the formulation of community values and goals and by accommodating the needs and wants of the residents to the extent possible. Accommodating needs and wants is especially important in relation to the youth, since this part of the population is faced with the question of where they want to live and raise a family and where they want to put their energy and devotion. If the community wants its youth to choose to stay in or return to the village, it needs to make it feasible and attractive for the youth to do so. Accommodating and focusing on the youth is key to the success of Igiugig's sustainability efforts.

In Igiugig, accommodating the youth has meant offering internships, creating jobs, providing housing, and opening up positions in the tribal government for the youth to occupy. Thereby the young people are empowered through their ability to take over leadership as they mature. The tradition of handing over responsibilities to the youth has created a culture of intergenerational collaboration and has fostered young community leaders who are devoted to the village. That the village administration is made up by three women in their twenties is perhaps the most obvious exemplification of just how big a role the youth play in the development of the community. Accommodating the youth has thereby also meant being open to their ideas and acknowledging that the youth will and must bring about change. Change that is imposed from the outside and that is dictated by political and economic entities largely outside the reach and influence of the village is likely to increase the vulnerability of the community. This has unfortunately been the general trend throughout the history of rural Alaskan communities, from the Russian era onwards, with assimilation policies and the lack of political sovereignty at the tribal level. However, change that comes from within and is guided by the values and goals of the community has the potential to strengthen the community and enhance overall sustainability. This is especially the case with change that is initiated by the youth since they inevitably will be the ones who, if any, will lead the community into the future.

Similarly, being dependent on outside input, especially financially, can weaken the sustainability of a community, whereas having a personal connection to the outside and being able to utilize outside resources is a great strength. Whether the connections to an influence from the outside leaves the community stronger or more vulnerable depends on who has the decision-making power and whether the connection and dependence is forced upon the community or they themselves choose it on their own terms. Although many of the ongoing development projects in Igiugig rely on technologies and ideas that are largely foreign to a “traditional” Yup’ik way of life, the aim with these technologies and ideas and the concepts behind them is firmly based on community values. It does not matter what the solutions “look like” as long as they follow the values and goals of the community. Communities like Igiugig have no choice but to operate within the context of modern-day society, especially since the passing of ANCSA and the creation of Native corporations. However, by founding the village institutions on community values, these institutions are able to support community sustainability rather than threaten it. This is largely the case in Igiugig where the great focus on political sovereignty and local solutions have enabled the community to take charge of their own process towards community sustainability.

Being open to new ideas and change has increased the diversity of Igiugig. One area in which Igiugig is especially diverse is population. Despite the small population base, differences in cultural backgrounds, experiences, skills, and age make Igiugig a culturally diverse community. Some people are born and raised in Igiugig, others have moved there from the Lower-48. Some people have spent several years “outside” as part of training and schooling, while others have stayed in the lake area their entire lives. Throughout the interviews, a picture of “the culture of Igiugig” has started to form with the youth identifying certain values that they cherish and that they think characterize the community. Whether or not any one individual identifies with all of these values is less significant. What is important is that everyone acknowledges and accepts these values to be the values of the community and thereby the foundation of community endeavors. This acceptance and tolerance allows room for every resident to lead a life that she or he finds satisfying. Having a sense of the community culture can also help prevent or alleviate conflicts in the community on where the village council and the village corporation should focus their efforts.

This observation on the culture of Igiugig is similar to anthropologist Ward Goodenough’s (1981) definition of culture. According to Goodenough, culture is made up of values and standards that individuals within the culture know of and subscribe to but

whose importance and interpretation vary from individual to individual. In this understanding, culture then consists of shared knowledge. There are many variations within this knowledge, and thereby within a culture, and each individual brings something new and slightly different to the “culture pool” (Goodenough 1981, 36-45 passim). Thereby, culture is understood as something that is on the one hand fluid and on the other hand has a certain “form” that members of the culture know of and are more or less able to recognize and identify. The culture of the community of Igiugig seems to function in this way. Some residents value formal education while others think of it as largely irrelevant. For some residents hunting, trapping, and fishing are crucial parts of living in the village while other residents rarely take part in such activities. Regardless of this difference in how people live their lives, there is a respect for the range of standards and it is recognized that all of these values combined make up the culture of Igiugig. What all of these values have in common seems to be their contribution to the wellbeing and sustainability of the community. Like AlexAnna Salmon says, everything they do in Igiugig is guided by the question of “what is best for the community?” Because of the way in which the people of Igiugig run their village and interact with one another, what is best for the community also seems to be best for the residents.

In Igiugig they are fostering a community culture that encourages communication and engagement. Because of the ability of the village to have a united understanding of their community values, their different backgrounds, skills and approaches to problem solving is a strength rather than a weakness. Having a culturally diverse population has proven to be a great strength for Igiugig since it increases the number of possible responses to change available to the village and allows the village to draw on a wide range of resources in its efforts to become more sustainable. An area in which Igiugig has made a conscious effort to diversify is in relation to the village economy. Relying on several sources of income (e.g. land use fees, the contracting company, the barge business, commercial fishing, and grants) instead of one or two sources makes the village less vulnerable to changes in political, economic and environmental systems on a local, regional, national, and global level.

The Pebble Mine Project is proposed by some as a way to enhance economic stability in southwest Alaska and thereby contribute to the sustainability of the villages in the area. However, becoming dependent on an economy over which they have no control can potentially be damaging to the sustainability efforts of these communities in the long run. The risk of environmental degradation caused by the mining efforts is another

significant disincentive for people in Igiugig to embrace this sort of development. In Igiugig, they argue that they do not need Pebble Mine to sustain their economy. Rather, a localized diverse economy is seen as a sustainable solution. This is especially so because economic sovereignty supports more than the livelihoods of people, it can also enhance political sovereignty. In most cases economic sovereignty is a prerequisite for political sovereignty and thereby the ability of the community to take control over its future. Although Igiugig is in a unique situation, for instance because of the sport fishing industry, it is very likely that other villages could diversify and strengthen their local economies in similar ways. A diversified economy has the potential to increase self-reliance, which in turn enhances sustainability. Finding the balance between having too few possibilities on one hand and having too many ongoing projects that lead to burnout on the other can be difficult, however, and this is an issue that Igiugig is currently dealing with. Decisions on what development to pursue have to rely on local conditions, such as the workforce and their skills.

Another part of the local conditions in a community is the people that live there. Many of the things that have helped Igiugig become a more sustainable community have been initiated by former village administrator, the late Dan Salmon. Bringing along with him a wide set of skills and outside resources, Dan helped the people of Igiugig define their values and goals and become a stronger community. Many sustainability efforts were led by Dan, and they are now led by his children and their peers. Whereas it is crucial for any development that aims at sustainability to have the community as a whole behind it, it is equally important for such endeavors to be led by individuals with visions and leadership abilities. The impact that role models like Dan Salmon and Mary Gregory-Olympic have is immense and in Igiugig their presence has been and is to this day an important contribution to the strength of the community. The differences between these two individuals – a non-Native from the Lower-48 and an Alaska Native born and raised on the land – exemplifies the cultural diversity of Igiugig and the inclusion of different perspectives into the community values. As long as it contributes to the wellbeing of Igiugig residents and the overall sustainability of the village, there seems to be no limit to the openness of the community.

Community sustainability does not depend on the community alone, however. Throughout the analysis it becomes clear that Igiugig's attempts to become more sustainable can be both supported and hindered by the economic and political climate in the

region, the state, and the nation. Whereas some pieces of legislation enable rural communities to take charge of their own future, others greatly hinder localized community sustainability efforts. By and large, community sustainability in rural Alaska is about being able to govern oneself and about having the resources and political sovereignty needed to design and implement local solutions to local problems. This requires that villages be given a place at the decision-making table in matters that relate to their development. The division of power in Native rural communities, largely following the passing of ANCSA, is creating an immense administrative burden for villages like Igiugig. From the passing of ANCSA in 1971 and onwards a lot of the time and money available in village corporations has been spent trying to comply with rules imposed by regional and state entities. Forty years later, it looks as if little has changed for most communities in this regard.

Beside the administrative burden that reporting requirements create, the lack of political sovereignty also hinders the communities' ability to make decisions about their future. The Pebble Mine Project is an example of this lack of decision-making power. Even though Pebble Mine will likely have a huge impact on communities like Igiugig, and despite the fact that the ecosystem of the proposed mining site is intrinsically connected to that of the entire southwest region and beyond, residents and tribal governments in the area have little to no decision-making power in the matter because the proposed mining location is on state land. If the aim is for rural villages to increase their self-reliance and thereby their sustainability, they need to be given the power that will allow them to do so.

Besides recognizing that sustainable development is about more than economics, it is also crucial for decision-makers to gain a deeper understanding of the complex nature of the sustainability concept. The lessons from Igiugig have the potential to offer such insight. Sustainability is context specific. Not only is it intrinsically tied to place; it is also fluid within this context because of the implications of time. What is sustainable now might not be sustainable next year, next month, or next week. Similarly, it is very likely that some parts of a community can be viewed as sustainable while others cannot. Community sustainability is therefore not an end stage that can be reached but rather something the community in question has to continually work towards by enhancing strengths and reducing vulnerabilities. Working towards sustainability means incorporating the concept into every aspect of village life by knowing what it means to the community and having everyone on board. The role of youth in community sustainability is not a question of whether or not the youth are going or staying but rather that they are connected to the community and devoted

to the place and the people so that when they are needed they will want to return – at least for a while. Being a sustainable community does not mean being resilient, and it does not mean being adaptive, at least not solely. Rather, being sustainable is constantly evaluating any decisions in the light of the values and goals of the community. This requires good communication between people and it requires that community members know what they have “coming behind them,” as Elder Mike Andrew puts it (Salmon 2008, 164). This means planning for the future while knowing and drawing on the past. Because this thesis is a “snap shot” of Igiugig at this moment in time, identifying solutions and projections for the future can be problematic since they undoubtedly will be subject to major change.

What sustainability looks like is therefore different from community to community and from one moment to another. This thesis has shown what Igiugig’s sustainability efforts look like at this moment in time. To summarize, one of the key features that enhances the sustainability of Igiugig is the great focus on and accommodation of the youth. The youth (age thirty and under) make up more than half of the population in Igiugig and they are largely the driving force in the community. In addition to this, the village has been able to develop its local economy by taking advantage of local conditions, such as the sport fishing industry, and by developing businesses that provide jobs as well as improve village infrastructure, such as ILC and the barge. As a response to the challenges of the high cost of living in rural Alaska, Igiugig has dived into alternative energy and other innovative solutions to issues of food, water, and energy, for instance the greenhouse, wind turbines, and a hydroelectric turbine. Despite the imperfect nature of the corporate structure, Igiugig has been able to develop its governing institutions in a way that follows the values and goals of the community and allows for large-scale involvement of every resident in the decision-making process. Overall, the community of Igiugig is continuously working on enhancing its strength and reducing its vulnerabilities. This work is guided by the values and goals of the community, of which every community member is a co-author.

Although this thesis has focused on the community of Igiugig and the people that live there, many of the problems and possible solutions that have been identified are likely to be applicable to other rural communities, in Alaska and elsewhere. Some of the overall lessons to take from this research include the immense positive affect of youth involvement and accommodation, the strength that can be found in cultural and economic diversity, and the great need for political sovereignty on the community level. Igiugig is a successful example of how a rural Alaskan community can take charge of their own future and develop their

community into a place where people want to live their lives and where future generations can prosper as well. It is the hope that this thesis can act as a way for the people of Igiugig to gain more insight into their own strengths as well as vulnerabilities. It is also the hope that other communities will be inspired by the sustainability efforts of Igiugig and go forth with identifying their community values and goals in their own pursuit to enhanced sustainability. Last but not least, it is the hope that this thesis can help regional and state decision-makers understand how better to aid rural Alaskan villages in their sustainability efforts by implementing legislation that can give communities the political power needed for them to design local solutions and plan for a sustainable future.

References

Publications:

- Alaska Native corporations. *Unique rights of Alaska Native corporation owned 8(a) businesses in the federal government procurement process*. www.ago.noaa.gov/ago/acquisition/.../alaska_native_contracting.pdf (accessed October 24 2011).
- Alliance for Excellent Education. 2009. *Current challenges and Opportunities in preparing rural high school students for success in college and career: what federal policymakers need to know*. Presented at the conference on “Economic Imperative: Turning Around the Nation’s Lowest-Performing High Schools” held on September 24 2009 in Washington DC. www.all4ed.org/files/Rural_FactsAtaGlance.pdf (accessed March 20, 2012).
- Allison, Helen E. and Richard J. Hobbs. 2004. Resilience, adaptive capacity, and the “Lock-in Trap” of the Western Australian agricultural region. *Ecology and Society* 9, no. 1: 3-27.
- Anchorage Daily News. 2010. Village survival recurring motif at Native convention. *Anchorage Daily News*. October 23. <http://www.adn.com/2010/10/22/1515119/village-survival-recurring-motif.html#storylink=cpy> (accessed March 4, 2012).
- Arnold, Robert D. 1976. *Alaska Native land claims*. Anchorage: Alaska Native Foundation.
- Aspelund, Shawn and Danny Seybert (1983). The way they flew. In *The cama-I book: kayaks, dogsleds, bear hunting, bush pilots, smoked fish, mukluks, and other traditions of southwestern Alaska*, ed. Ann Vick, 216-220. New York: Anchor Press/Doubleday.
- Austin, Algernon. 2010. Different race, different recession: American Indian unemployment in 2010. *Economic Policy Institute*. Issue Brief #289. November 18 2010. <http://www.epi.org/publication/ib289/> (accessed April 24, 2012).
- Barnhardt, Carol. 1980. *Historical status of elementary schools in rural Alaskan communities, 1867-1979*. Preliminary Review Edition. Fairbanks: Center for Cross-Cultural Studies, University of Alaska Fairbanks, Alaska.
- . 2001. A history of schooling for Alaska Native people. *Journal of American Indian Education* 40, no. 1: 1-30. <http://www.ankn.uaf.edu/curriculum/Articles/CarolBarnhardt/HistoryofSchooling.html> (accessed January 18, 2012).
- Barnhardt, Ray. 1999. Preparing Teachers for Rural Alaska. *Sharing Our Pathways: A newsletter of the Alaska Rural Systemic Initiative* 4, issue 1: 1-3. Fairbanks: Alaska Native Knowledge Network. University of Alaska Fairbanks. www.ankn.uaf.edu/sop/SOPv4i1.pdf (accessed January 28, 2012)
- Bell, Simon and Stephen Morse. 1999. *Sustainability Indicators. Measuring the immeasurable?* London: Earthscan Publications Limited.
- Bennett, John W. 1976. *The ecological transition: Cultural anthropology and human adaptation*. New York: Pergamon Press Inc.

- Bergman, R. L. 1969. *A second report on the problems of boarding schools*. Indian education, hearings before the Special Subcommittee on Indian Education of the Committee on Labor and Public Welfare, United States Senate, 90th Congress, First and Second Sessions, on the study of the Education of Indian Children, Part 3 (March 30, pp 1128-1133). Washington D.C.: U.S. Government Printing Office.
- Berkes, F and C. Folke. 1998. Linking social and ecological systems for resilience and sustainability. In *Linking social and ecological systems: management practices and social mechanisms for building resilience*, ed. F. Berkes and C. Folke, 1–25. Cambridge: Cambridge University Press.
- Berman, Matthew. 2009. Moving or staying for the best part of life: theory and evidence for the role of subsistence in migration and well-being of Arctic Inupiat residents. *Polar Geography* 32, no. 1: 3-16.
- Bersamin, Andrea, Bret R. Luick, Elizabeth Ruppert, Judith S. Stern, and Sheri Zidenberg-Cherr. 2006. Diet quality among Yup'ik Eskimos living in rural communities is low: the Center for Alaska Native Health Research Pilot Project. *Journal of the American Dietetic Association* 106, issue 7: 1055-1063.
- Bopp, Judie and Michael Bopp. 1985. *Taking time to listen: using community-based research to build program*. Lethbridge, Alberta: University of Lethbridge, Four Worlds Development Press.
- Boston, David. 2008. Poverty rates in Alaska. Alaskan cities prosper, but Native Alaskans are left to freeze. *Suite 101*. July 20. <http://suite101.com/article/poverty-in-alaska-a61078> (accessed July 7, 2012).
- Branson, John and T. Troll., ed. 2005. *Our story: readings from southwest Alaska, an anthology*. Anchorage: The Alaska Natural History Association.
- Brave Heart, Maria Y. H. and Lemyra M. DeBruyn. 1998. The American Indian holocaust: healing historical unresolved grief. *American Indian and Alaska Native Mental Health Research. The Journal of the National Center*, 8, no. 2:60-82.
- Bristol Bay Regional Vision. 2010a. *Igiugig consensor results*. December 13. <http://www.bristolbayvision.org/downloads/> (accessed April 14, 2012).
- . 2010b. *Igiugig community discussion summary*. December 13. <http://www.bristolbayvision.org/downloads/> (accessed April 14, 2012).
- . 2010c. *Round I consensor results – all communities*. <http://www.bristolbayvision.org/> (accessed July 2, 2012).
- . 2011a. *Igiugig round II consensor results*. April 26. <http://www.bristolbayvision.org/downloads/> (accessed April 14, 2012).
- . 2011b. *Igiugig round II community meeting summary*. April 26. <http://www.bristolbayvision.org/downloads/> (accessed April 14, 2012).
- . 2011c. *Round 2 consensor results – all communities*. <http://www.bristolbayvision.org/> (accessed July 2, 2012).

—. 2012. *About the project*. <http://www.bristolbayvision.org/about/> (accessed July 2, 2012).

Carter, S. M. and M. Little. 2007. Justifying knowledge, justifying method, taking action: epistemologies, methodologies, and methods in qualitative research. *Qualitative Health Research* 17, no. 10: 1316-1328.

Case, David S. and David A. Voluck. 2002. *Alaska Natives and American law*. 2nd edition. Fairbanks: University of Alaska Press.

Chambers, Dave, Robert Moran and Lance Trasky. 2012. *Bristol Bay's wild salmon ecosystems and the Pebble Mine: key considerations for a large-scale mine proposal*. Report produced in partnership by Wild Salmon Center and Trout Unlimited. www.wildsalmoncenter.org/pdf/PM-Report.pdf (accessed April 15, 2012).

Chapin, F. Stuart, Martin D. Robards, Henry P. Huntington, Jill F. Johnstone, Sarah F. Trainor, Gary P. Kofinas, Roger W. Ruess, Nancy Fresco, David C. Natcher, and Rosamond L. Naylor. 2006. Directional changes in ecological communities and social-ecological systems: a framework for prediction based on Alaskan examples. *The American Naturalist* 168, no. S6: 36-49.

Collignon, Béatrice. 2006. *Knowing places: the Inuinnait, landscapes, and the environment*. CCI Press.

Colt, Steve, Scott Goldsmith and Amy Wiita. 2003. *Sustainable utilities in rural Alaska. Effective management, maintenance and operation of electric, water, sewer, bulk fuel, solid waste. Final report. Part A: overview*. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage.

Cornell, Stephen, Jonathan Taylor, Kenneth Grant, Victor Fischer, and Thomas Morehouse. 1999. *Achieving Alaska Native self-governance. Toward implementation of the Alaska Natives Commission Report. Final Report – AFN Version*. Prepared by The Economic Resource Group, INC and The Institute of Social and Economic Resource, University of Alaska Anchorage for The Alaska Federation of Natives.

Couch, James S. 1957. *Philately below zero. A postal history of Alaska*. The American Philatelic Society.

Dauenhauer, Richard. 1997. *Conflicting visions in Alaskan education*. Fairbanks: University of Alaska Veniaminov Bicentennial Project.

DeMarban, Alex. 2012. In rural Alaska, villages fight extinction once schools close. *Alaska Dispatch*. April 10. <http://www.alaskadispatch.com/article/rural-alaska-villages-fight-extinction-once-schools-close> (accessed May 19, 2012).

DFID. 2000. *Sustainable Livelihoods Framework*. DFID. [www.dfid.gov.uk/r4d/PDF/.../R7850 Majale RGUU1 Review.pdf](http://www.dfid.gov.uk/r4d/PDF/.../R7850%20Majale%20RGUU1%20Review.pdf) (accessed October 20, 2011).

Dumond, Don E. and James W. VanStone. 2005. Paugvik. In *Our story: readings from southwest Alaska, an anthology*, ed. John Branson and Tim Troll, 45-56. 2nd edition. Anchorage: The Alaska Natural History Association.

Dumond, Don E. 2005. *A Naknek chronicle. Ten thousand years in a land of lakes and rivers and mountains for fire*. National Park Service, US Department of the Interior. Katmai National Park and Preserve.

Editorial Projects in Education. 2007. Diplomas Count: The Graduation Project 2007. *Education Week* 26, issue 40: 5-43. <http://web.ebscohost.com/ehost/detail?sid=1cc61f1a-b7ac-4aff-af16f45d2468d5d0%40sessionmgr110&vid=4&hid=107&bdata=jnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=eft&AN=507986334> (accessed April 2, 2012).

Education Task Force. 2010. Alaska Native education. In *Alaska Native education – views from within*, ed. Ray Barnhardt and Angayuqaq Oscar Kawagley, 7-30. Fairbanks: Alaska Native Knowledge Network, Center for Cross-Cultural Studies. University of Alaska Fairbanks. Originally published in 1995.

Edwards, Andres R. 2005. *The sustainability revolution – portrait for a paradigm shift*. BC: New Society Publishers.

EPA. 2012. *An assessment of potential mining impacts on salmon ecosystems of Bristol Bay, Alaska: executive summary*. United States Environmental Protection Agency.

Fay, Ginny, Alejandra Villalobos Meléndez, Ben Saylor, and Sarah Gerd. 2011. *Alaska energy statistics*. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage. Prepared for Alaska Energy Authority.

Fenge, Terry. 1994. *Towards sustainable development in the Circumpolar North*. Canadian Arctic Resources Committee, briefings. <http://www.carc.org/pubs/briefs/brief1.htm> (accessed April 2, 2012).

Fienup-Riordan, Ann. 1984. The spirit of ANCSA: Native expectations and the Alaska Native Claims Settlement Act. In *Papers prepared for overview round table discussions*. Alaska Native Review Commission, February 27-March 16, Anchorage, Alaska.

—. 1990. *Eskimo essays: Yup'ik lives and how we see them*. New Brunswick: Rutgers University Press.

—. 1994. *Boundaries and passages: rule and ritual in Yup'ik Eskimo oral tradition*. Norman: University of Oklahoma Press.

—. 2000. *Hunting traditions in a changing world: Yup'ik lives in Alaska today*. New Brunswick: Rutgers University Press.

Fried, Neal. 2010. The cost of living in Alaska. *Alaska Economic Trends* 2010, 3-10. <http://live.laborstats.alaska.gov/trends/results.cfm> (accessed May 27, 2012).

Gallopín, Gilberto C. 2006. Linkages between vulnerability, resilience, and adaptive capacity. *Global Environmental Change* 16: 293-303.

Gerlach, S. Craig and Phillip Loring. 2012. Rebuilding Alaska Foodsheds: No shortage of good ideas. *Rural Connections* 6, issue 2: 23-24.

Gerlach, S. Craig, Philip A. Loring, Amy Turner, and David E. Atkinson. 2011. Food systems, environmental change, and community needs in rural Alaska. In *North by 2020. Perspectives on Alaska's changing social-ecological systems*, ed. Amy L. Lovcraft and Hajo Eicken, 89-109. The University of Chicago Press.

Glavinic, Tonei. 2010. Neglected responsibilities: America's failure to support Native Alaskan students. *Student Pulse. Online Academic Student Journal* 2, no. 1. <http://www.studentpulse.com/articles/120/neglected-responsibilities-americas-failure-to-support-native-alaskan-students> (accessed on May 3, 2012).

Goodenough, Ward H. 1981. *Culture, language and society*. 2nd edition. Menlo Park: Benjamin/Cummings Publishing Company, Inc.

Goldsmith, Scott. 2007. *The remote rural economy of Alaska*. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage.

—. 2008. *Understanding Alaska's remote rural economy*. UA Research Summary, no. 10. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage.

Guyette, Susan. 1996. *Planning for balanced development. A guide for Native American and rural communities*. Santa Fe: Clear Light Publishers.

Haley, Sharman, Ginny Fay, Joel Ainsworth, Jane Angvik, Alexandra Hill, and Stephenie Martin. 2009. *Benefits of Alaska Native Corporations and the SBA 8(a) Program to Alaska Natives and Alaska*. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage.

Hamilton, L.C. and Seyfrit, C.L. 1993. Town-village contrast in Alaskan youth aspirations. *Arctic* 46, no. 3: 255-263.

—. 1994. Female flight? Gender balance and outmigration by Native Alaskan villagers. *Arctic Medical Research* 53, suppl. 2: 189-193.

Hawken, Paul, Amory Lovins, and L. Hunter Lovins. 1999. *Natural capitalism. Creating the next industrial revolution*. Boston: Little, Brown and Company.

Henderson, Eric, Stephen J. Kunitz, K. Ruben Gabriel, Aaron McCright, and Jerrold E. Levy. 1998. Boarding and public schools: Navajo educational attainment, conduct disorder, and alcohol dependency. *American Indian and Alaska Native Mental Health Research. The Journal of the National Center*, 8, no. 2: 28-49.

Hill, Alexandra and Diane Hirshberg. 2006. *Alaska teacher supply and demand 2005 update*. Prepared for Alaska Teacher Placement, University of Alaska. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage.

—. 2008. *Turnover among Alaska teachers: is it changing?* Institute of Social and Economic Research. Research summary no. 69. University of Alaska Anchorage.

Hollander, J. B. 2009. Keeping control: the paradox of scholarly community-based research in community development. *Community Development Journal* 46, no. 2: 265-272.

Holling, C. S. 1973. Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics* 4: 1-23.

- Holthaus, Gary. 2008. *Learning Native wisdom. What traditional cultures teach us about subsistence, sustainability, and spirituality*. The University Press of Kentucky.
- Howe, E.L. 2009. Patterns of migration in Arctic Alaska. *Polar Geography* 32, no. 1-2: 66-89.
- Howley, Craig and Bruce Barker. 1997. The national information infrastructure: keeping rural values and purposes in mind. *ERIC Digest* no. RC-97-4. Charleston, WV: Clearinghouse on Rural Education and Small Schools. <http://www.ericdigests.org/1998-2/rural.htm> (accessed March 16, 2012).
- Hudson, Heather E. 2011. *Broadband for rural development in southwest Alaska*. Anchorage: Institute of Social and Economic Research, University of Alaska Anchorage. <http://www.iser.uaa.alaska.edu/publications.php?id=1341> (accessed February 20, 2012).
- Huntington, Henry P. 2000. Using Traditional Ecological Knowledge in science: methods and applications. *Ecological Applications* 10, no. 5: 1270-1274.
- Huntington, Henry P., Sarah A. Kruse and Astrid J. Scholz. 2009. Demographic and environmental conditions are uncoupled in the social-ecological system of the Pribilof Islands. *Arctic Research* 28: 1119-128.
- Huskey, Lee, M. Berman, and A. Hill. 2004. Leaving home, returning home: Migration as a labor market choice for Alaska Natives. *Annals of Regional Science* 38: 75-92.
- Igiugig Native Corporation. 2011. Corporation meeting, October 11, 2011.
- Ingold, Tim. 2000. *Perception of the environment: essays in livelihood, dwelling and skill*. London: Routledge.
- Kassam, K. S. 2009. *Biocultural diversity and indigenous ways of knowing. Human ecology in the arctic*. Calgary: University of Calgary Press.
- Kaul, Inge. 2002. *Challenges of human development in the arctic*. United Nations Development Program. New York: Office of Development Studies of the United Nations Development Program.
- Kawagley, Angayuqaq Oscar. 1995. *A Yupiaq worldview. A pathway to ecology and spirit*. Prospect Heights: Waveland Press, Inc.
- King, Bob. 1990. A fortune in fish. In *The Nushagak River*, ed. Penny Rennick. *Alaska Geographic* 17, no. 1: 39-50. Anchorage: The Alaska Geographic Society.
- Knapp, Gunnar. 2012. *An introduction to the economy of Alaska*. Anchorage: Institute of Social and Economic Research, University of Alaska, Anchorage.
- Loring, Phillip A. 2007. *Coming out of the foodshed: change and innovation in rural Alaska food systems*. A thesis. Fairbanks: University of Alaska Fairbanks.
- Loring, Phillip A. and Scott Craig Gerlach. 2009. Food, culture, and human health in Alaska: An integrative health approach to food security. *Environmental Science & Policy* 12: 466 - 478.

- Loring, Phillip A., S. Craig Gerlach, David E. Atkinson, and Maribeth S. Murray. 2011. Ways to help and ways to hinder: governance for effective adaptation to an uncertain climate. *Arctic* 64, no. 1: 73-88.
- Martin, Stephanie, Mary Killorin and Steve Colt. 2008. *Fuel cost, migration, and community viability. Final report.* Prepared for the Denali Commission. Institute of Social and Economic Research, University of Alaska Anchorage, in collaboration with First Alaska Institute and Alaska Native Policy Center.
- Michael, Henry. 2005. Trapping and hunting during the Russian era. In *Our story: readings from southwest Alaska, an anthology*, ed. John Branson and Tim Troll, 87-89. 2nd edition. Anchorage: The Alaska Natural History Association.
- Millennium Ecosystem Assessment. 2005. *Ecosystems and human well-being – synthesis.* Washington D.C.: Island Press.
- Mitchell, Donald C. 2001. *Take my land, take my life: the story of congress's historic settlement of Alaska native land claims.* Fairbanks: University of Alaska Press.
- Morseth, Michele. 2003. *Puyulek pu'irtuq!: the people of the vulcanoes: Aniakchak National Monument and Preserve ethnographic overview and assessment.* 2nd edition. Anlakchak National Monument and Preserve.
- Noriega, J. 1992. American Indian education in the United States: indoctrination for subordination to colonialism. In *The state of Native America: genocide, colonization, and resistance*, ed. M. A. Jaimes, 371-402. Boston: South End Press.
- Olsen, Dean F. 1969. *Alaska reindeer herdsman: a study of Native management in transition.* Anchorage: Institute of Social, Economics and Government Research. University of Alaska Fairbanks. http://www.alaskool.org/projects/reindeer/history/iser1969/rdeer_1.html (accessed February 2, 2012).
- Ongtooguk, Paul. 2010. Their silence about us: why we need an Alaska Native curriculum. In *Alaska Native education. Views from within*, ed. Ray Barnhardt and Angayuqaq Oscar Kawagley, 237-239. Fairbanks: Alaska Native Knowledge Network, Center for Cross-Cultural Studies. University of Alaska Fairbanks. <http://www.alaskool.org/whyproject.html> (accessed April 22, 2012).
- Orth, Donald J. 1971. *Dictionary of Alaska place names.* Geological Survey Professional Paper 567. 2nd Edition. Washington: United States Government Printing Office.
- Oswalt, Wendell H. 1990. *Bashful no longer: an Alaskan Eskimo Ethnohistory, 1778-1988.* The Civilization of the American Indian Series, vol. 199. University of Oklahoma Press.
- Parfitt, Trevor. 2004. The ambiguity of participation: a qualified defense of participatory development. *Third World Quarterly* 25, issue 3: 537-555.
- Popkin, Berry M. and Penny Gordon-Larsen. 2004. The Nutrition Transition: Worldwide Obesity Dynamics and their Determinants. *International Journal of Obesity* 28: S2-S9.
- Rondinelli, Dennis A. 1993. *Development projects as policy experiments: an adaptive approach to development administration.* 2nd edition. New York: Routledge.

Sahtouris, Elisabeth. 2000. *EarthDance. Living systems in evolution*. Lincoln: iUniversity Press.

Said, Edward W. 1979. *Orientalism*. New York: Random House, Inc.

Salmon, AlexAnna. 2008. "Igyararmiunguunga": *Qallemciq Nunaka Man'I Kuicaraami-Illu. "I belong to Igiugig": The story of my home on the Kvichak River*. Undergraduate Honors Thesis. Dartmouth: Dartmouth College.

Schaeffer, John and John D. Christensen. 2010. Inupuat Ilitqusiatic. To save our land and our people. In *Alaska Native education. Views from within*, ed. Ray Barnhardt and Angayuqaq Oscar Kawagley, 59-72. Fairbanks: Alaska Native Knowledge Network, Center for Cross-Cultural Studies, University of Alaska, Fairbanks. Originally published in 1981.

Selkregg, Linda. 2005. Southwest Alaska regional profile. In *Our story: readings from southwest Alaska, an anthology*, ed. John Branson and Tim Troll, 1-8. 2nd edition. Anchorage: The Alaska Natural History Association.

Seyfrit, Carole L., Lawrence C. Hamilton, Cynthia M- Duncan, and Jody Grimes. 1998. Ethnic identity and aspirations among rural Alaska youth. *Sociological Perspectives* 41, no. 2: 343-365.

Shaffer, Leigh S. and Carole L. Seyfrit, ed. 2000. *Rural youth and their transitions and pathways connecting school and work: a white paper*. Report from the conference: "Rural youth and their transition from school to work." Norfolk, VA: Old Dominion University.

Smith, Linda T. 1999. *Decolonizing methodologies. Research and indigenous peoples*. 9th edition. New York: Zed Books Ltd and Dunedin: University of Otago Press.

St. Denis, V. 1992. Community-based participatory research: aspects of the concept relevant for practice. In *Native Studies Review* 8, no. 2: 51-74.

<http://ankn.uaf.edu/CXCS/file.php/30/Readings/denis.html> (accessed Mar 3, 2011)

Toman, Michael A. 1992. The difficulty in defining sustainability. *Resources* 106: 3-6.

Turner, Billie L. II, Roger E. Kasperson, Pamela A. Matson, James J. McCarthy, Robert W. Corell, Lindsey Christensen, Noelle Eckley, Jeanne X. Kasperson, Amy Luers, Marybeth L. Martello, Colin Polsky, Alexander Pulsipher, and Andrew Schiller. 2003. A framework for vulnerability analysis in sustainability science. *PNAS* 100, no. 14: 8074-8079.

Unrau, Harlan D. 1994. *Lake Clark National Park and Preserve, Alaska: historical resource study*. U.S. Department of the Interior, National Park Service.

VanStone, James W., ed. 2005. Encounters with the Aglurmuit. In *Our story: readings from southwest Alaska, an anthology*, ed. John Branson and Tim Troll, 29-34. 2nd edition. Anchorage: The Alaska Natural History Association.

VanStone, James W. 1967. *Eskimos of the Nushagak River. An ethnographic story*. Seattle: University of Washington Press.

Vayda, Andrew P. 1983. Progressive contextualization: methods for research in human ecology. *Human Ecology* 11, no. 3: 265-281.

Williams, C. H., E. B. Robinson, and J. C. Bell. 2005. 1919 Spanish influenza epidemic. In *Our story: readings from southwest Alaska, an anthology*, ed. John Branson and Tim Troll, 129-137. 2nd edition. Anchorage: The Alaska Natural History Association.

Wilson, S. 2008. *Research is ceremony. Indigenous research methods*. Winnipeg: Fernwood Publishing.

Yardsley, William. 2009. Alaska's rural schools fight off extinction. *The New York Times*. November 25. <http://www.nytimes.com/2009/11/26/us/26alaska.html?pagewanted=all> (accessed May 16, 2012).

Zimin, Carvel. 1983. Six cents a fish. In *The cama-I book: kayaks, dogsleds, bear hunting, bush pilots, smoked fish, mukluks, and other traditions of southwestern Alaska*, ed. Ann Vick et al., 211-215. New York: Anchor Press/Doubleday.

Interview Recordings (alphabetized by first name):

AlexAnna Salmon. 2010. October 21. Fairbanks, Alaska. 38 min. 20 sec.

AlexAnna Salmon. 2011a. June 25. Igiugig, Alaska. 1 hr. 36 min. 51 sec.

AlexAnna Salmon. 2011b(I). October 14. Igiugig, Alaska. 47 min. 10 sec.

AlexAnna Salmon. 2011b(II). October 14. Igiugig, Alaska. 49 min. 32 sec.

Andrew and Katy Scrivo. 2011. October 14. Igiugig, Alaska. 28 min. 24 sec.

Annie and Georgie Wilson. 2011(I). October 11. Igiugig, Alaska. 24 min. 56 sec.

Annie and Georgie Wilson. 2011(II). October 11. Igiugig, Alaska. 44 min. 10 sec.

April Hostetter. 2011. June 21. Igiugig, Alaska. 1 hr. 36 min. 34 sec.

Christina Salmon. 2011(I). June 22. Igiugig, Alaska. 59 min. 35 sec.

Christina Salmon. 2011(II). June 22. Igiugig, Alaska. 38 min. 47 sec.

Dallia and Mike Andrew 2011. October 13. Fairbanks, Alaska. 42 min. 36 sec.

Dan Decker Jr. 2011(I). June 22. Igiugig, Alaska. 9 min. 15 sec.

Dan Decker Jr. 2011(II). June 22. Igiugig, Alaska. 16 min. 42 sec.

Dan Decker Sr. 2011(I). October 14. Igiugig, Alaska. 7 min. 53 sec.

Dan Decker Sr. 2011(II). October 14. Igiugig, Alaska. 13 min. 48 sec.

Gordon Hester. 2011. October 15. Igiugig, Alaska. 29 min. 3 sec.

Ida Nelson. 2011(I). June 22. Igiugig, Alaska. 15 min. 56 sec.

Ida Nelson. 2011(II). June 22. Igiugig, Alaska. 1 hr. 32 min. 29 sec.

Jack Wassillie. 2011. June 24. Igiugig, Alaska. 28 min. 6 sec.

Jonathan Salmon. 2011. June 25. Igiugig, Alaska. 49 min. 24 sec.

Julie Salmon 2011. October 15. Igiugig, Alaska. 1 hr. 7 min. 57 sec.

Kevin Olympic. 2011. June 24. Igiugig, Alaska. 32 min. 56 sec.

Lukas Zacker. 2011. June 23. Igiugig, Alaska. 18 min. 48 sec.

Martha Crow. 2011. June 23. Igiugig, Alaska. 1 hr. 56 min. 12 sec.

Mary Gregory-Olympic. 2011. October 10. Igiugig, Alaska. 55 min. 40 sec.

Sandy Alvarez. 2011(I). October 13. Igiugig, Alaska. 15 min. 22 sec.

Sandy Alvarez. 2011(II). October 13. Igiugig, Alaska. 16 min.

Tanya Salmon. 2011(I). June 20. Igiugig, Alaska. 20 min. 15 sec.

Tanya Salmon. 2011(II). June 20. Igiugig, Alaska. 1 hr. 10 min. 20 sec.

Terek Anelon. 2011. June 26. Igiugig, Alaska. 26 min. 44 sec.

Other Recordings:

Mary Olympic. 1995. Tape H95-33-1, Section 1. Project Jukebox. University of Alaska, Fairbanks.

Online Sources:

Alaska Center for Rural Health. 2011. About Alaska. <http://acrh-ahec.uaa.alaska.edu/frontier/alaska.html> (accessed May 22, 2012).

Alaska Native Language Archive. 2011. <http://www.uaf.edu/anla/collections/map/> (accessed July 27, 2012).

ANILCA. 1980. Title VIII: subsistence management and use findings. Definitions. <http://alaska.fws.gov/asm/anilca/title08.html> (accessed July 12, 2012).

BBEDC. 2012. Boats and Permits. <http://www.bbedc.com/web/brokerage.html> (accessed June 6, 2012).

City Data. 2012. Igiugig, Alaska. <http://www.city-data.com/city/Igiugig-Alaska.html> (accessed January 24, 2012).

Department of Labor and Workforce Development. 2011a. 2011 Population By Borough/Census Area and Economic Region <http://labor.alaska.gov/research/pop/popest.htm> (accessed May 30, 2012).

—. 2011b. Race and Hispanic Origin, 2000-2010 (Excel). <http://labor.alaska.gov/research/pop/popest.htm> (accessed May 30, 2012).

- . 2012. April 2012 Preliminary Unemployment Rate
<http://live.laborstats.alaska.gov/labforce/> (accessed May 30, 2012).
- Feeding America. 2012. Map the meal gap. <http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx> (accessed April 23, 2012).
- Hopson, Nasugraq, R. 2010. Another unspoken phenomenon..... On blog: *Stop and Smell the Lichen*. February 15 2010. <http://salmonberryblood.blogspot.com/2010/01/another-unspoken-phenomenon.html> (accessed November 6, 2011).
- The Lake and Peninsula School District. 2011. The Lake and Peninsula School District Regular School Meeting Minute. March 10. lpsd.com/pdfs/March_10_2011BMM.pdf (accessed March 12, 2012).
- McKinley, Michael J. 2012. Disasters: environmental mining accidents
<http://www.pollutionissues.com/Co-Ea/Disasters-Environmental-Mining-Accidents.html> (accessed June 10, 2012).
- Pebble Partnership 2009a. Prospecting the future
<http://www.pebblepartnership.com/project> (accessed March 14, 2012).
- . 2009b. Mining economics. <http://www.pebblepartnership.com/mining> (accessed March 14, 2012).
- . 2009c. Respectful resource development.
<http://www.pebblepartnership.com/environment> (accessed March 14, 2012).
- Permanent Fund Dividend Division. 2011. Tax Reporting.
<http://www.pfd.state.ak.us/taxes/> (accessed June 21, 2012).
- State of Alaska Health and Social Services. 2010. Suicide Statistics for Alaska – 2010.
<http://www.hss.state.ak.us/suicideprevention/statistics.htm> (accessed May 22, 2012).
- United States Census Bureau. 2010. State and county quickfacts.
<http://quickfacts.census.gov/qfd/states/02000.html> (accessed July 7, 2012).
- WACDA. 2012. The Western Alaska Community Development Quota Program
<http://www.wacda.org/> (accessed June 6, 2012).

Appendix A. Example of Analysis Process

Igiugig Cultural Values (as Identified by the Youth):

1. Respect for elders
2. Hunting and trapping
3. Fishing and being on the river
4. Succeeding in what one attempts/live out potential
5. Help each other
6. Create/maintain a healthy and sustainable environment/community
7. Look out for the common good (before individual benefit)
8. Formal education
9. Protecting the land-base
10. Keeping the Yup'ik culture alive (as a general idea)
11. Yup'ik material culture in general
12. Sharing
13. Connection to the outside
14. Open to change
15. Family
16. Self-reliance

Issue (1-16) mentioned by youth (A-L):

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
B			/	X	X	X	X	X	X	X			X	X		
C	X		X	/	X	X	X	/	X	X			X	X	X	X
D		X	X	X	X		X	X	X				X			X
E	X	X	X		X	X	X	--	/			X	X	X		X
F			X		X				X	X	X	X			X	X
G				X			--	/						X	X	X
H		X		X		X	X	X	X	--			/	X		X
I		X	X		X							X			X	
J					X				X				X			
K	X				X	X	X	/							X	
L		X	X	/	X	X	X	X	/			X	/		X	X

KEY: X = mentioned, / = somewhat mentioned, -- = disagree

Appendix B. Statement of Informed Consent

“Alaska Native Youth Creating Sustainable Livelihoods in Rural Alaska”

Dear participant,

This Statement of Informed Consent is intended to inform you of the nature of your participation in my research and the possible implications.

Your interview will be used in my thesis, which is part of my Northern Studies Masters degree at the University of Alaska Fairbanks. My research regards how young people in rural Alaska can create a healthy and satisfying life for themselves in their home communities and what barriers they might face when attempting to create this life. Through this research I hope to get an understanding of where your community is strong and where it is vulnerable as well as find ways to increase the strength and decrease the vulnerability. I am asking for your participation because you and the other people living in Igiugig know more about your community than anyone else. I hope to do this research together with you in a way that makes the process and the end result valuable to you and to Igiugig.

This topic can be sensitive. If for any reason you should feel uncomfortable during the interview, either because of my questions or other aspects of the situation, you can ask me to stop or redirect the interview. Whether or not you want to participate as well as the length of your participation is entirely up to you.

Your interview will be used in my thesis. During the process of writing the thesis only my committee members at the university and myself will have access to your interview. After my graduation the thesis will become publically accessible through the Rasmuson library at the University of Alaska Fairbanks. Before submitting my thesis I will return to Igiugig and present the final product and ask for you to either approve the information or point out where you see the need for changes. Your comments will be included in the final product. It is likely that I will want to present my thesis at academic conferences or in academic journals. If this becomes the case I will keep the village administrator of Igiugig informed about presentations or publications.

Both the thesis and your recording (if applicable) will be stored at the Rasmuson library at the University of Alaska Fairbanks. The maintenance of the data will be the responsibility of the library archivist.

By participating in this research you are potentially contributing to the accumulation of knowledge on the strengths of your community, how to make it a better place to live, and how to make sure that it will continue to develop in a healthy way for the benefit of future generations. This has the potential to benefit you and the other people living in your community, as well as be an inspiration to other rural communities around Alaska and the rest of the world.

Last but not least, know that your participation in this research is entirely voluntary and that you can stop your participation at any time and for any reason.

If you have any questions regarding the research or this statement, you are welcome to ask me now or contact me later at: irmelingram@gmail.com or 907-687-7986

If you have questions or concerns about your rights as a research participant, you can contact the UAF Office of Research Integrity at 474-7800 (Fairbanks area) or 1-866-876-7800 (toll-free outside the Fairbanks area) or fyirb@uaf.edu.

Statement of consent:

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this research. I have been provided a copy of this form.

Signature of Participant & Date

Signature of Person Obtaining Consent & Date

Thank you!

Irmelin Gram-Hanssen

Appendix C. Interview Guide

Overarching question:

- How do Alaska Native youth in rural Alaska create sustainable livelihoods?

Supporting questions:

- What does it mean to live in rural Alaska as a young person? What does it take? What does it mean to you?
- What do you see as your strengths? The strengths of your community?
- In what ways do you see yourself as vulnerable? How do you see your community as vulnerable?
- What are some of the skills that you see as important in your life? Are they traditional skills or more modern skills?
- What are some of the barriers you see in your attempt to create a good life in your community?
- What are some of the ways you try to break down these barriers?
- What are your goals for the future? How do you plan to get there?