Université de Montréal

Understanding the past to imagine the future: The history of industrial design practice in Alberta

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Mémoire présenté à la Faculté des études supérieures et postdoctorales
en vue de l'obtention du grade de Maîtrise en Sciences Appliquées (M.Sc.A.)
en aménagement option design et complexité

Mars, 2012

Université de Montréal
Faculté des études supérieures

Ce mémoire intitulé :

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Résumé

La pratique du design industriel dans la province canadienne de l'Alberta est en pleine croissance. Ses activités sont principalement concentrées à Edmonton et à Calgary, qui sont les plus grandes villes de la province. On y trouve des studios de design de renom, des communautés de design complexes et des programmes universitaires de design bien établis. Cependant, la pratique du design industriel albertaine est sous-développée en comparaison avec celle du reste du Canada et il y a peu de recherches et de documentation sur le design industriel en Alberta.

Dans ce projet de mémoire, la pratique du design industriel en Alberta a été explorée depuis une approche historique. Pour pallier le manque de documentation, la collecte de données a été faite par une recherche qualitative, des entretiens narratifs et une recherche quantitative statistique. Une base d'information historique sur le design industriel albertain a été établie puis située par rapport au développement de la pratique du design industriel ailleurs au Canada. Les facteurs, événements et tendances dans l'histoire de la pratique du design industriel en Alberta ont été identifiés. De plus, le développement de la pratique du design industriel de l'Alberta a été comparé à celui du Québec et de l'Ontario.

Les retombées de cette étude indiquent que la pratique du design industriel en Alberta présente quatre domaines de spécialisations distincts se développant depuis les années 1980. La pratique du design industriel en Alberta est sous-développée en comparaison à celui du Québec et de l'Ontario, mais elle peut devenir plus compétitive, au niveau canadien, avec plus de soutien gouvernemental, de meilleures relations avec l'industrie manufacturière et les institutions académiques, une communauté de design plus unifiée et en portant une plus grande attention aux domaines les plus prometteurs de l'industrie. Ces informations supportent une meilleure compréhension de la pratique du design industriel en Alberta et pourront informer les praticiens, enseignants et administrateurs du domaine du design industriel dans la province. Finalement, le mémoire servira de base à d'autres projets de recherche sur les changements potentiels dans la pratique du design industriel en Alberta et l'étude du design canadien et des industries de design régionales.

Mots clés : Design industriel, Alberta, histoire du design, histoire comparative

Abstract

Industrial design practice is a growing field in Alberta, Canada. Activity is mainly centered in Edmonton and Calgary, Alberta's largest cities. Both cities have strong industrial design practices, complex industrial design communities, and well-established industrial design education institutions. However, industrial design practice in Alberta is underdeveloped compared to elsewhere in Canada and there is little recorded information about the field.

In this master's thesis, industrial design practice in Alberta was explored using a historical approach. The study employed qualitative historical research, oral history interviews, and quantitative statistical research to address this lack of research and documentation. A base of historical information about industrial design practice in Alberta was established and situated in relation to industrial design practice elsewhere in Canada. Factors, events, and trends in the history of industrial design practice in Alberta were identified. Further, the development of industrial design practice in Alberta was compared with developments in industrial design practice in Québec and Ontario.

Results show that Alberta's industrial design industry has four distinct areas of specialization, which have established starting in the 1980s. Findings further indicate that although industrial design practice in Alberta remains underdeveloped compared to Québec and Ontario, with increased government support, stronger relationships with manufacturing industries and education institutions, a more unified design community, and a focus on the areas of strength and promise of the industry, the field has potential to become more competitive within Canada. This study provides important insight into industrial design practice in Alberta with relevance for industrial design practitioners, educators, and policy makers in the province. Finally, it sets the groundwork for research into potential changes to Alberta's industrial design industry and study of Canadian design and regional design industries.

Keywords: Industrial design, Alberta, design history, comparative history

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List of Abbreviations

ACAD	Alberta College of Art and Design
ACID	Association of Canadian Industrial Designers
ACIDO	Association of Chartered Industrial Designers of Ontario
ADIQ	Association des designers industriels du Québec
AGT	Alberta Government Telephone
CPR	Canadian Pacific Railway
DI	Design industriel
DIRTT	Doing it Right this Time
FOIP	Freedom of Information and Protection of Privacy Act
GDP	Gross domestic product
HBC	Hudson's Bay Company
ICSID	International Council of Societies of Industrial Design
ID	Industrial Design
IDEA	Industrial Designers of Edmonton Association
IDSA	Industrial Designers Society of America
MADE	Media, Art and Design, Exposed
MRU	Mount Royal University
NDA	National Design Alliance
NAICS	North American Industry Classification System
NEP	National Energy Policy
Nortel	Northern Telecom
OCAD	Ontario College of Art and Design
SAIT	Southern Alberta Institute of Technology
U of A	University of Alberta
U of C	University of Calgary

Acknowledgments

It is a pleasure to thank everyone who made this thesis possible. I am indebted to Mme Denyse Roy, my research supervisor, for her enthusiasm, support, and dedication to my education and development as a researcher. Thanks to Tim Antoniuk, John Greg Ball, Alan Boykiw, Denis Gadbois, Cezary Gajewski, Rob Gallant, Jacques Giard, Robert Lederer, Geoffrey Lilge, and Dr. Sean Maw for their contributions and confidence in my research project. Thanks also to the patient and knowledgeable librarians and archivists at the Université de Montréal, University of Alberta, Provincial Archives of Alberta, and Design Exchange. Finally, thanks to my family for their endless support of my education and love of design.

This thesis has been supported by a Social Sciences and Humanities Research Council of Canada graduate scholarship and funding from the Faculté de l'aménagement, Université de Montréal.

Preface

Inspiration for this thesis came from my personal experience studying and working as an industrial designer in Alberta. Though I am originally from Montréal, Québec, I lived in Alberta for seven years. I studied industrial design at the University of Alberta in Edmonton and worked as a designer in Edmonton and Calgary. I am actively involved in design and creative communities in Alberta.

Through these experiences, I recognize the strong and vibrant industrial design community in Alberta. However, I also understand the challenges facing local industrial designers. There are few industrial design jobs, little support for industrial designers, and a lack of understanding regarding the industry. Upon graduation from the University of Alberta, I struggled to find relevant employment. I found it difficult to understand how to apply industrial design education and experience in Alberta's workforce, economy, and socio-cultural context. This experience is shared by my classmates; many remain underemployed or have since left the province or re-trained in other fields.

Upon return to Montréal and the beginning of my master's studies, I chose to explore industrial design practice in Alberta. The goal was to establish a foundation of information about the industry to inform local designers and help change the situation for graduates of industrial design programs in the future. This study sets the groundwork for further research projects and indicates promising trends, directions, and specializations for the industry. As a hub for industrial design and creative industries, Montréal and the Université de Montréal were the ideal location to conduct this study. The history and strength of local industrial design practice provided valuable context and perspective for this research project.

Though I have strong personal connections with Alberta's industrial design industry, this thesis is addressed as objectively as possible. Its methodological framework and academic rigor has helped minimize my personal bias.

1. Introduction

1.1 Alberta

Alberta is a western Canadian province with a unique history, dynamic identity, and powerful economy. While elements of its history remain significant, Alberta is rapidly changing and becoming an increasingly modern and diverse province. For tens-of-thousands of years, Aboriginal people lived in the territory where Alberta is today. In the 1600s, the first European fur traders arrived (Palmer, 1977). Fur traders and subsequent European settlers brought massive changes to the region and transformed its population, landscapes, and ways of life (Palmer, 1977). With the discovery of oil in the early-to-mid twentieth century, Alberta transformed again from an agrarian province into a modern and urban economic centre. Today, Alberta has a relatively large population of 3.7 million[1] (see Figure 1-2). Eighty-two percent of Alberta's population live in urban areas.[2]

"Alberta's fortunes have always been tied fiercely to the land" (Takach, 2010, p. 37). This includes traditional ways of life of aboriginal people, the European fur trade, ways of life of European settlers and the oil and gas, agriculture, ranching, forestry, and mining industries today. Approximately one third of Alberta's territory

[1] Statistic from 2010 (Statistics Canada, 2010a)

[2] Statistic from 2006 (Statistics Canada, 2009b)

is agricultural land and over one half is forest (Government of Alberta, 2012; Takach, 2010). Alberta has approximately 70% of Canada's coal reserves, 80% of Canada's natural gas production, and 70% of Canada's oil production (Government of Alberta, 2012; Takach, 2010). However, reliance on natural resources has made Alberta's ways of life and economy vulnerable to weather conditions, export markets, and prices (Takach, 2010). Alberta has a fluctuating or 'boom-and-bust' economy that has a profound impact on Alberta's development, wealth, and population.

1.1.1 History. European settlement in Alberta began during the fur trade era when land was owned by the Hudson's Bay Company (HBC) (Thomas, 1985; Voisey, 1985). However, European settlement took off in 1870 when HBC land was annexed to Canada (Thomas, 1985; Voisey, 1985). Rail development from Québec and Ontario brought large numbers of European settlers to Alberta (Thomas, 1985).

Most settlers established small farms and took part in Alberta's major industries, which included cattle ranching from the 1870s to 1900 and agriculture after 1900 (Francis & Palmer, 1985a; Wetherell & Kmett, 1991). With the advancement of machinery, small family farms were replaced by larger farms and settlers migrated to urban centers (Thomas, 1985). Urban centers initially functioned to provide goods and services to farmers, but later began to develop as self-contained economic, political, or administrative centres (Voisey, 1985).

Calgary is currently Alberta's most populous city[3] (see Figures 1-1 and 1-2; Statistics Canada, 2011g). Calgary was established as a North-West Mounted Police

[3] Calgary had a population of 1,090,936 in 2011 (Government of Alberta, 2011).

fort in 1875 and later became a major station for the Canadian Pacific Railway (CPR) (Foran, 2004). Edmonton is currently Alberta's second most populous city[4] (see Figures 1-1 and 1-2; Statistics Canada, 2011g). This city is located approximately 300 kilometers north of Calgary (Statistics Canada, 2011g). It was founded in 1795 as an administrative and transportation hub for the HBC (Macleod, 2004). When Alberta became a Canadian province in 1905, Edmonton was chosen as the capital city and home to the province's first university because of its local support for the federal government at the time (Takach, 2010; Voisey, 1985).

Alberta's development, agricultural industry, and population boomed until the late 1910s when a series of events including drought, low wheat prices, and the Great Depression caused Alberta's economy and population growth to languish for many years (see Figure 1-2; Voisey, 2004).

In 1914, oil was discovered near Turner Valley, a town southwest of Calgary (see Figure 1-1; Voisey, 2004). This was the first discovery of oil in Alberta. It provided the funds for development and exploration of Alberta's oil and gas industry and centered the headquarters of the industry in Calgary (Hanson, 1958). In 1947, a more significant discovery of oil was made in Leduc, a town south of Edmonton (see Figure 1-1; Hanson, 1958). This discovery signalled the arrival of the "modern era" in Alberta and was followed by many more discoveries of oil and gas near Edmonton and in northern Alberta (Stamp, 2004, p. 29). Calgary continued to serve as management centre for Alberta's oil and gas industry and Edmonton became the gateway to Alberta's oil reserves and home to oil refineries (Hanson, 1958).

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[4] Edmonton had a population of 782,439 in 2011 (Government of Alberta, 2011).

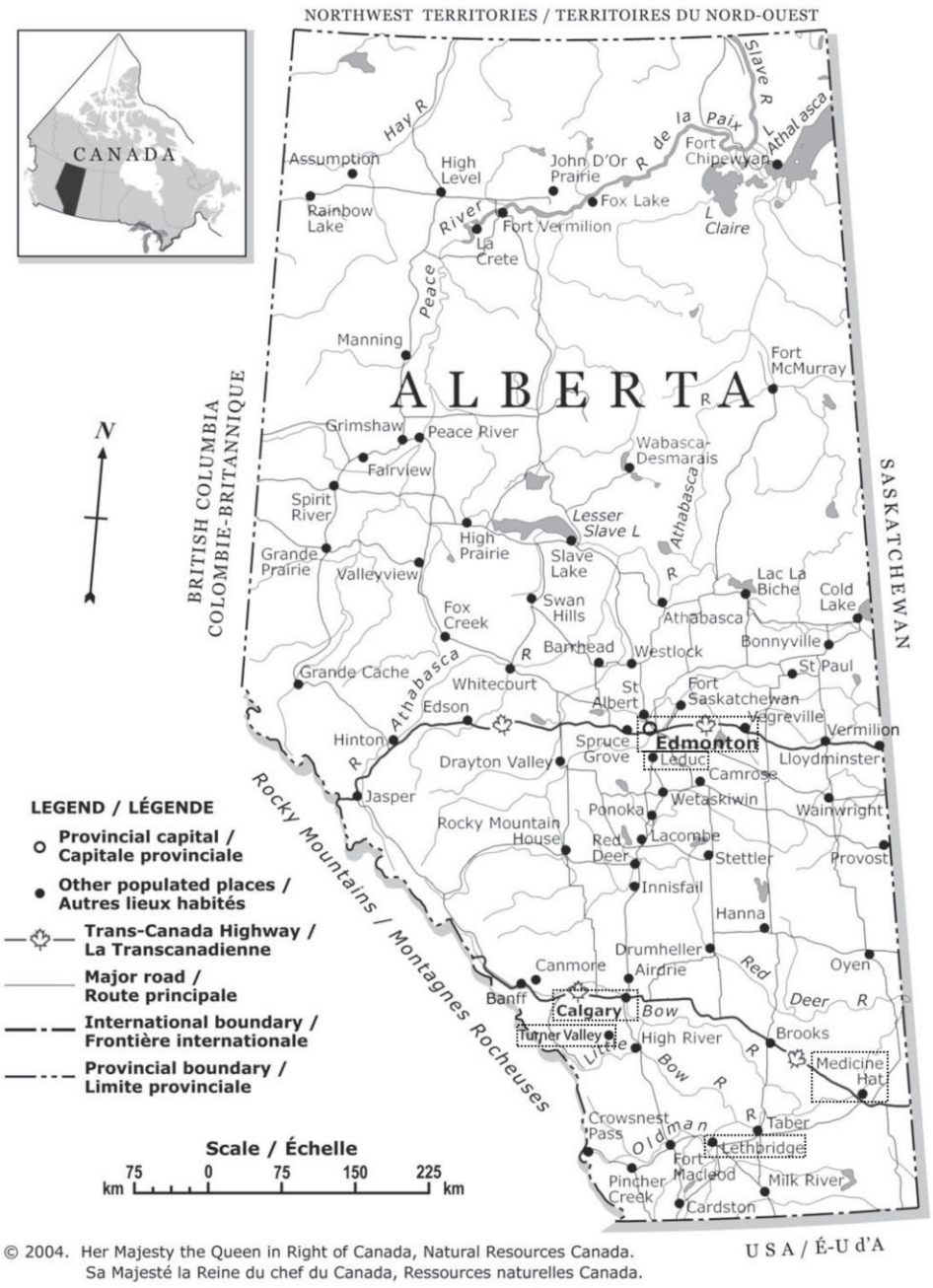
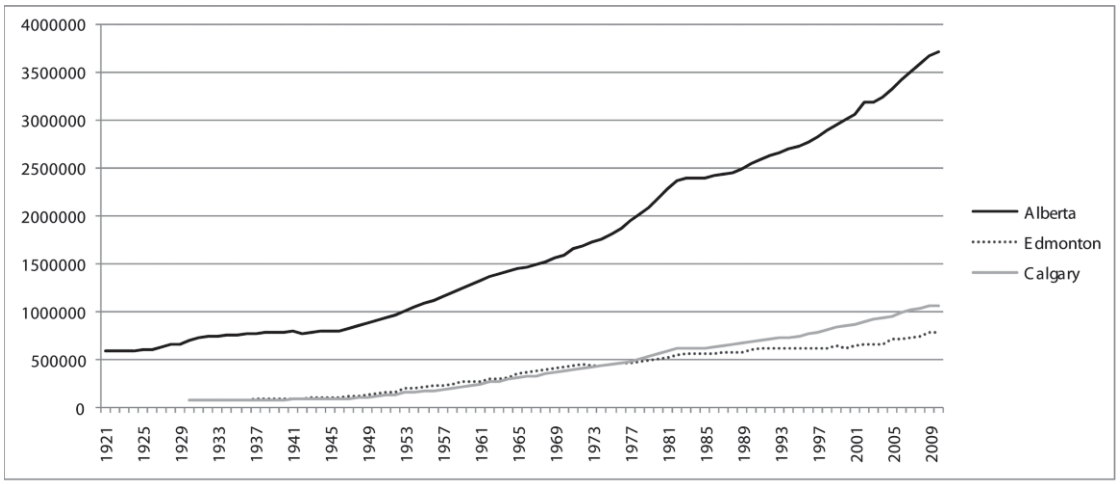


Figure 1-1. Map of Alberta. Adapted from Natural Resources Canada map. Retrieved from http://atlas.nrcan.gc.ca

Since 1947, Alberta's economy has been driven by the oil and gas industry, oil and gas prices, and corporate profits (Cross & Bowlby, 2006). The oil and gas industry brought social and economic changes to the province including income growth,

economic stability, urbanization, and a population boom (see Figures 1-2 and 1-3; Francis & Palmer, 1985b). In 1947, the oil and gas industry accounted for 5% of personal income in Alberta and by 1956, it accounted for 45% (Hanson, 1958). After 1954, the percentage of personal income from the oil and gas industry surpassed that of agriculture (Hanson, 1958).



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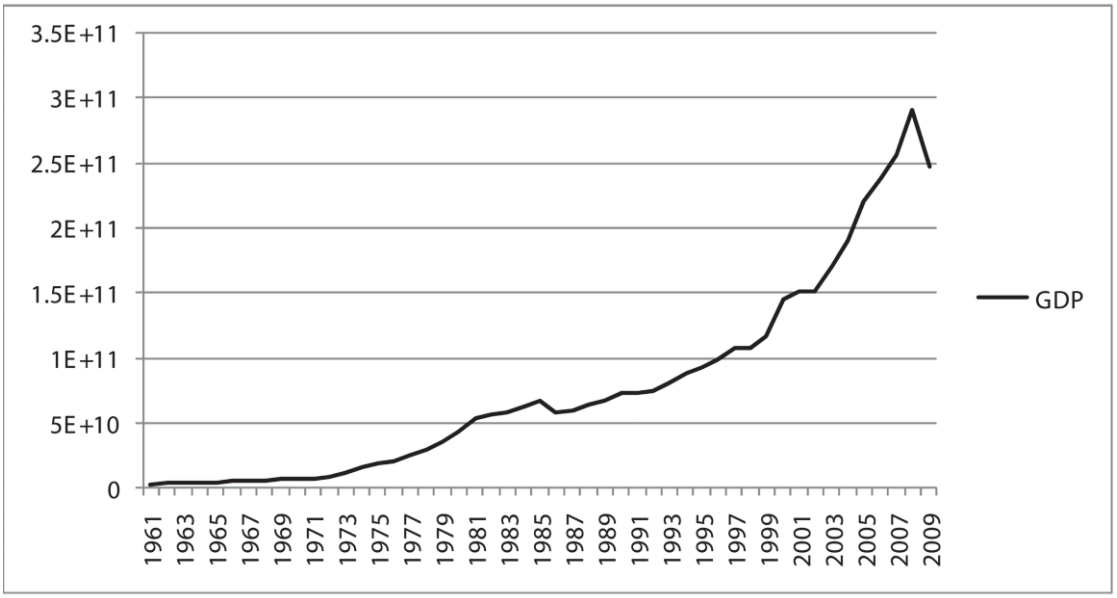

Figure 1-3. Gross domestic product (GDP), income based, in Alberta (1961-2009). Based on Statistics Canada (2009c; 2010e).

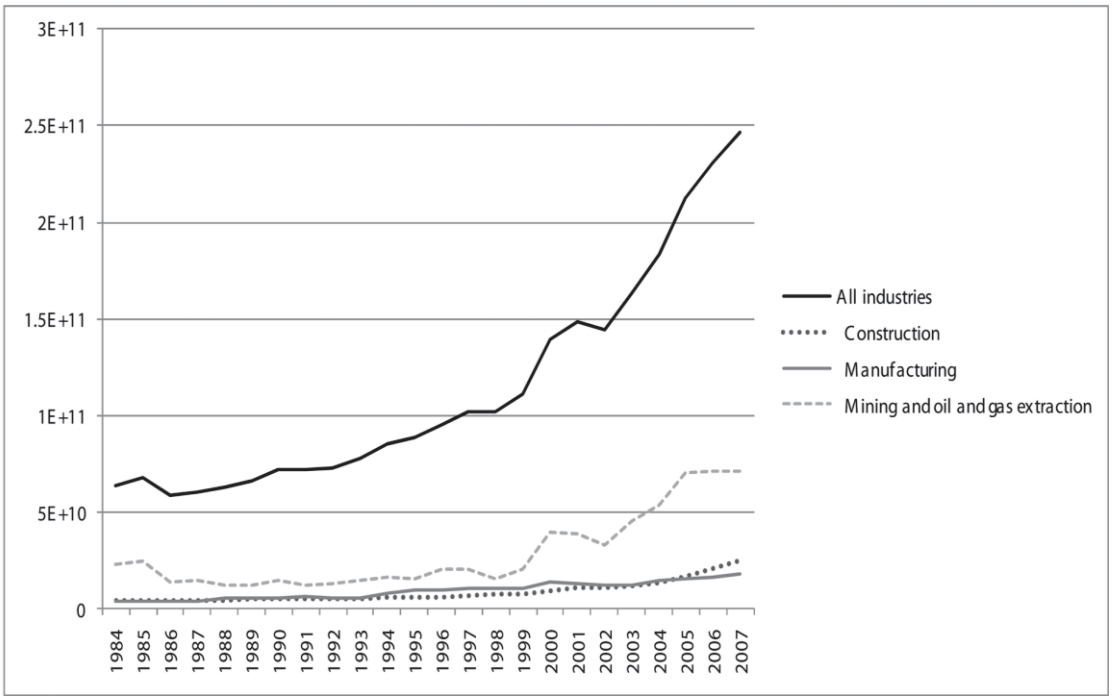

Figure 1-4. Gross domestic product (GDP), at basic prices in current prices, by industry in Alberta (1984-2007). Based on Statistics Canada (2011h).
Note. Manufacturing industry may represent certain industrial design practices.

In 1971, Alberta's government began to plan for the diversification of the provincial economy (see Section 4.5.1; Foster Research & SRI International, 1980). The province was thriving, but its dependence on natural resources and the energy sector put the province at risk of a boom-and-bust economy (Canada Western Diversification Office, 1987; Foster Research & SRI International, 1980). Further, a discussed federal National Energy Policy (NEP) was predicted to result in an economic crisis and job loss in Alberta (Foster Research & SRI International, 1980). NEP was established in 1980 (Goyette & Roemmich, 2004). It regulated oil prices, raised corporate taxes, and restricted exports, which caused large oil companies to lower production and smaller companies to shut down (Goyette & Roemmich, 2004). Though NEP was revoked in 1985, oil prices had dropped and Alberta's oil and gas industry struggled for the remainder of the decade (see Figure 1-4; Goyette & Roemmich, 2004). During this period, Alberta's gross domestic product (GDP) fell and population growth slowed (see Figures 1-2 and 1-3; Government of Alberta, 2011; Statistics Canada, 2002, 2009c, 2010e, 2011g).

In the 1990s, Alberta's economy leveled off through diversification of the economy, budget cuts, increased natural gas exports, and subsidized oil and gas development projects in northern Alberta (Goyette & Roemmich, 2004; Voisey, 2004). In 1998, Alberta entered another boom period (Cross & Bowlby, 2006; Emter, 2010). From 1998 to 2008, Alberta had the "strongest period of economic growth ever recorded by any province in Canada's history" (Cross & Bowlby, 2006, p. 3.1). Its GDP grew 43% from 2002-2005; Alberta families earned among the highest annual incomes in Canada; and Alberta had one of the highest levels of population

growth in Canada (see Figures 1-2, 1-3 and 1-4; Cross & Bowlby, 2006; Statistics Canada, 2011d, 2011e). The boom ended in 2008 with the worldwide recession (Lamphier, 2011). Alberta's GDP dropped and patterns of migration to the province reversed (see Figures 1-2 and 1-3; Statistics Canada, 2009c, 2010e, 2011g). Many people left Alberta to find opportunities elsewhere. Today, Alberta's economy is experiencing modest growth and is predicted to rebound in the near future (Crawford, 2011; Lamphier, 2011).

1.1.2 Today. Alberta's history and relation to the landscape and natural resources impact its contemporary identity. Alberta has "a character that retains elements that are powerfully and inescapably rural" (Takach, 2010, p. 30). Alberta is often seen as conservative, wealthy, and uncultured (Takach, 2010); however, Alberta and its identity are in a state of flux. In 2006, 11.29% of Alberta's population and 14.68% of Calgary's population lived in a different province or country five years before (Statistics Canada, 2007b, 2007c). Alberta's urban population, newcomers, and global connections propel Alberta's diversity and contemporary character, which contrasts with traditional visions of the province (Barrie, 2006; Graham, 2006).

The majority of Alberta's population lives in Edmonton and Calgary (see Figure 1-2; Statistics Canada, 2011c). Edmonton had an early advantage as Alberta's capital city and home to the province's first university. However, as headquarters of Alberta's oil and gas industry, Calgary became the financial and political centre of the province and the "public face of Alberta for most Canadians" (Bergman, 2010, para.18). Calgary is a global, corporate city (Bergman, 2010). Its history and

association with the oil and gas industry strengthen its "roots in the western economy and regional character" (Sandalack et al., 2005, p. 137). Calgary's identity represents the "meeting of rural charm and urban flash, all in the context of gloriously high oil prices" (Babiak, 2006, para. 7). In contrast, Edmonton is a more isolated and industrial city. Edmonton has a diverse and ephemeral identity based on the city's arts, multiculturalism, and educational institutions (Bergman, 2010; Macleod, 2004).

1.1.3 Creative industries. While Alberta is recognized for its major industries including energy and agriculture, its creative industries are often overlooked. Throughout the history and development of Alberta, there has been disregard or an often careless and ambivalent attitude towards design. Alberta's cities do not look like design hotspots and many buildings and neighbourhoods are constructed with little attention to design detail (Fong, 2010). James Howard Kunstler, an urban affairs critic, infamously described Calgary's suburbs as the "North American tragedy in microcosm" (Kunstler, 2005, para. 1). Nevertheless, as a more developed and established region, Alberta is beginning to address quality of life and has increased sensitivity towards cultural and industrial patrimonies. This includes increasing recognition and value for Alberta's creative industries. Edmonton is developing an artistic identity and "there are a million more stories of artistic success [in Alberta] … both well known and not" (Takach, 2010, p. 221). Further, Alberta has indeed a burgeoning and surprisingly strong industrial design industry.

1.2 Definition of Industrial Design

The industrial design discipline is often misunderstood. There are a variety of definitions that describe it as a professional and/or intellectual discipline. For example, the Industrial Designers Society of America (IDSA) provides a definition based on the professional realm:

> Industrial design (ID) is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer. . . . The industrial designer's unique contribution places emphasis on those aspects of the product or system that relate most directly to human characteristics, needs and interests. . . . Industrial designers also maintain a practical concern for technical processes and requirements (2010, para. 1, 4, 5).

The International Council of Societies of Industrial Design (ICSID) defines industrial design as an intellectual discipline:

> Design is a creative activity whose aim is to establish the multi-faceted qualities of objects, processes, services and their systems in whole life cycles. Therefore, design is the central factor of innovative humanisation of technologies and the crucial factor of cultural and economic exchange. . . . The adjective "industrial" put to design must be related to the term industry or in its meaning of sector of production or in its ancient meaning of "industrious activity" (n.d., para. 1, 3).

In this thesis, industrial design combines both definitions. Industrial design is a professional and intellectual discipline of "creating and developing concepts and specifications" (IDSA, 2010, para. 1) that enhance "the multi-faceted qualities of objects, processes, services and their systems" (ICSID, n.d., para. 1) within the context of industrialization. Special attention is directed towards human needs, product lifecycles, and interdisciplinarity of the field.

1.3 Regional Approach

A regional approach is often used to study industrial design in Canada. *Shaping Canada's Future by Design* is a national study of Canadian design for the purposes of design development and promotion (Price Waterhouse, 1996). The report was conducted by Price Waterhouse, led by the National Design Alliance (NDA), and sponsored by Human Resources Development Canada. The report states that "[t]he sheer size of Canada means that Canadian designers are geographically dispersed across the country. . . . The strength of the design sector will come from the abilities of designers in various regions to take advantage of local opportunities" (1996, p. 97). Opportunities include location, local industries, markets, and policy support (1996).

Industrial design practice in Canada is often distinguished by province. Québec and Ontario are the traditional centres of industrial design in Canada (Price Waterhouse, 1996; Zeman, 2001). Industrial design practice in Québec and Ontario benefits from government support programs, local manufacturing industries, and proximity to large markets (Price Waterhouse, 1996). Many studies focus on

industrial design practice in Québec and Ontario. Examples include *Le Design Industriel au Québec : Un Outil Stratégique de Compétitivité Économique* by Développement Économique, Innovation et Exportation Québec (2010) and *Designing the Economy: A Profile of Ontario's Design Workforce* by M. S. Gertler and T. Vinodrai (2004). In contrast, there is limited research, publications, or understanding about industrial design in Alberta. Industrial design in Alberta is often grouped within Canada's Prairie region,[5] which also includes Manitoba and Saskatchewan. The Price Waterhouse study asserted that "[t]he Prairies, unlike other regions of Canada, have no single centre for design" (1996, p. 93). However, Alberta's industrial design industry has grown compared to Manitoba and Saskatchewan (see Chapter 5) and thus should be examined separately.

1.4 Context and Problem

Alberta is home to creative designers, successful industrial design companies, and strong, well-established industrial design schools. In fact, its industrial design industry has gained increasing recognition locally and internationally (Brown, 2009). However, there is limited attention, research, or writing about industrial design in Alberta. This contributes to a situation where the industry is misunderstood, even by local designers. Industrial designers must make decisions regarding their practice without current, accurate or complete information about the industry, its areas of specialization, its strengths and weaknesses, or its place within Alberta.

[5] The Prairies are defined by the geography of the Great Plains and the historical, social, and cultural identity of inhabitants (Davidson, 2001; Friesen, 2001; Ingles, Peel & Distad, 2003).

Alberta is located far from the traditional center of Canadian industrial design in Québec and Ontario (Price Waterhouse, 1996; Zeman, 2001). For many years, industrial designers in Alberta were encouraged to move to Québec or Ontario, rather than stay to support the local industry (Chalmers, 1991; Harris, 2004). Still today, designers often feel they need to leave Alberta to pursue their careers. Many industrial designers believe that Alberta's industrial design industry is weak and its growth and development cannot keep pace with their needs. Chris Chevalier, a design student explained: "I want [Edmonton, Alberta] to be my first choice [to practice design], but we'll see. Depends how much of a martyr I want to be" (cited in Fong, 2010, para. 1). Chevalier followed by saying: "Edmonton's got a lot of potential. It's just the trick of whether I want to stick around and wait for that to happen" (cited in Fong, 2010, para. 1).

Though these perceptions may be accurate, they are never fully explained or quantified. They raise questions including: what is the state of Alberta's industrial design industry? What are the experiences of industrial designers practicing in Alberta? Can Alberta's industrial design industry support their needs? A foundation of information is required in order to better understand the industry and begin to address these questions.

In this thesis, Alberta's industrial design industry is examined using a historical approach. Design history is recognized as an important field that helps structure contemporary thought, establish traditions, and add coherence to design activities (Dilnot, 1984a; Margolin, 2009). A recorded history will unite designers and allow them to "consider the past . . . and imagine their future" (Donnelly, 2006,

p. 288). This research documents the general history of industrial design practice in Alberta by tracing the history, factors, events, and trends in its development and analyzing results within the context of Alberta's development as a province. Outcomes will help local industrial designers make informed decisions about their practice and possibly provide information to help strengthen the industry and indicate its future directions.

Factors are elements that influence or contribute to the development of industrial design practice in Alberta. Events correspond to turning points in the development of industrial design practice in Alberta and relate directly to each factor. These include government policies, industrial design education programs, or establishment of industrial design studios. Finally, trends are tendencies that are evident throughout the development of industrial design practice in Alberta.

Several specifications limit the scope of the research project. First, this project focuses on design practice, which is the professional realm of designers. Research focuses on designers themselves, but touches on related factors including design studios, design education, design manufacturing, and government policy and support for design. Second, historical research begins in 1968. Alberta's first industrial design education program was established at the University of Alberta in Edmonton in 1968 (Price Waterhouse, 1996). Industrial design practice in Alberta began to emerge in the 1970s and 1980s (see Chapter 4). Finally, research focuses primarily on Edmonton and Calgary. Though industrial design practice takes place across Alberta, Edmonton and Calgary are home to the majority of the province's design

education institutions, design studios, and manufacturing industries (see Chapters 4 and 5).

1.5 Research Question

The research question for this thesis is: what is the history and significance of industrial design practice in Alberta from 1968 to present?

1.6 Objectives

This thesis has two major objectives, namely:

(1) Document and understand the history of industrial design practice in Alberta. Industrial design practice and related factors including design education institutions; design subsidies; and the revenue and profit margin of Alberta's industrial design industry figure into the history.

(2) Pinpoint the factors, events, and trends in the history of industrial design practice in Alberta. This analysis is based on historical information gathered in objective 1 and by taking into account the context of Alberta's development as a province.

This research project has two minor objectives, namely:

(3) Position this study and the history of industrial design practice in Alberta within the theoretical framework of the field of design history. This study is structured following the methodologies and research focuses of the field of design

history. It contributes to knowledge within the discipline, introduces new models for research, and addresses current debates within the field.

(4) Briefly sketch out the development of industrial design practice in Alberta in relation to the development of practice in Québec and Ontario. Québec and Ontario are the traditional centers of industrial design in Canada, and are the major destination of former Alberta industrial designers (Harris, 2004; Price Waterhouse, 1996; Zeman, 2001). The contrast between design practices in Alberta, Québec, and Ontario provides context and a point of comparison for industrial design practice in Alberta. As a minor objective, the comparison is brief and not extensive.

2. Literature Review of the Field of Design History

Design history is a relatively new academic field that has experienced significant development and debate in the past three decades. Traditionally, the field was defined as the "study of the history of professional design activity" (Dilnot, 1984a, p. 12). However, more recently, the definition has been expanded to embrace a broader understanding of the field. Contemporary study of design history addresses the history and context of design (Dilnot, 1984a; Walker, 1989) and uses design history as an "umbrella discipline bringing together a range of fields determined by materials and processes [and] . . . neighboring disciplines, such as cultural studies, material culture studies, psychology, sociology and the history of technology" (Lees-Maffei, 2010d, p. 303). Although design historians are not in agreement about how the field should be addressed or defined, they emphasize the importance of understanding the history and context of design, as it helps structure contemporary thought, establish traditions, and add coherence to design activities (Dilnot, 1984a; Margolin, 2009). In the following chapter, the development of the field of design history is traced, significant literature and researchers are highlighted, and major issues and debates surrounding design history are explored.

2.1 Development of the Field of Design History

"Understanding what design history is today . . . requires an understanding of what design history has been" (Fallan, 2010, p. 148). Thus, the development of the field of design history will be explored. Its development can be separated into three phases: the first phase occurred during the modern period and lasted until the late 1960s; the second phase, late 1960s-1995, involved debate about the discipline's future inspired by postmodern theory; and the final period, 1995-present, involved a broadening of the discipline and its objects of study (Lees-Maffei & Houze, 2010).

2.1.1 Modern period until the late 1960s. The beginning of the field of design history is often traced to Nikolaus Pevsner's book, *Pioneers of the Modern Movement from William Morris to Walter Gropius*, published in 1936 (Dilnot, 1984a; Lees-Maffei, 2009; Woodham, 1995). Although he did not envision his book to be a contribution to the emerging discipline, it helped to form the foundation for the field and inspire the work of other design historians (Lees-Maffei, 2010a). In his book, Pevsner explored the roots of modern design until 1914 (Pevsner, 1936). Based on his training as an art historian (Fallan, 2010), Pevsner focused on design as a professional field (Lees-Maffei, 2010a); emphasized the importance of designers and design history (Dilnot, 1984a); and helped to establish a cannon of 'great' designers (Clark & Brody, 2009).

Pevsner's approach to design history was instrumental in the development of the discipline, and most design history literature published in subsequent decades used a similar model (Clark & Brody, 2009). For example, similar to Pevsner, design

historians such as Herwin Schaefer (1970), Stephen Bayley (1979) and Deyan Sudjic (1985) used an art historical approach to study design and focused on Modernism and the work of 'great designers' (Lees-Maffei, 2009; Margolin, 2009; Woodham, 1995).

In the 1950s and 1960s, the field of design gained momentum and design history began to develop as an independent discipline (Dilnot, 1984a; Julier & Narotzky, 1998). An important event in the development of the field of design history was the start of a degree program in design in Britain in 1961 (Julier & Narotzky, 1998). According to local academic regulations, history courses were required as part of design education in order for the program to achieve honours status (Lees-Maffei, 2009). This forced reflection upon the discipline of design history and focused academic study on design history in Britain (Julier & Narotzky, 1998). Initially university courses in design history followed Pevsner's model, but in the late 1960s and 1970s, there was increasing pressure to expand their scope (Dilnot, 1984a).

2.1.2 Debates inspired by postmodern theory, late 1960s to 1995. The field of design history has never been based on "well-understood subject matter or a set of methods and principles"; rather, it grew from "initial literature in the field, first celebrating it then criticizing it" (Margolin, 2009, p. 106). By the 1970s, the limited scope of the field of design history was challenged as a result of increased academic attention and Modernism's declining popularity (Dilnot, 1984a). Issues such as "design organization, technology, and the relation of design to society and to the economy" became more significant (Dilnot, 1984a, p. 11).

The political and social instability surrounding the Cold War, Vietnam War, civil rights movements, and independence movements of the 1960s to 1980s led to "a new cultural and psychological sense of being- a condition of 'postmodernity'" (Houze, 2010b, p. 176). These changes led scholars to consider the aesthetic, social and philosophical dimensions of design and to a new perspective on the field of design history (Houze, 2010b). Design history's traditional focus on 'good design' was replaced with the desire to "challenge ideas about discrimination and pursue an inclusive definition of design within social context" (Lees-Maffei, 2010a, p. 264). During this period, design historians debated the future of the field through a series of journal articles (2010a). Questions explored the definition of design, the scope and relevance of design history, and the relationship between design history and design practice (2010a).

Significant contributions from this period include Clive Dilnot's two-part article, "The State of Design History", published in 1984. In "The Production-Consumption-Mediation Paradigm," design historian Grace Lees-Maffei labeled his articles an "early warning" that encouraged the discipline to enhance its understanding of socio-historical issues (2009, p. 359). In "Part 1: Mapping the Field," Dilnot explored the need for a definition of design and emphasized the relationship between "history, understanding, and practice" (1984a, p. 5). He argued that "defining and explaining design and what a designer does are dependent not only on immersion in design practice, but also on the ability to see this practice in both historical and social perspectives" (1984a, p. 6). In "Part 2: Problems and Possibilities," Dilnot discussed the existence of multiple and interrelated design

histories (1984b). He explained that "it is more accurate to talk about varieties of design history rather than to see the subject as a single entity" (1984b, p. 4).

Other significant articles include those of Victor Margolin (1992), Adrian Forty (1993), and Jonathan M. Woodham (1995), researchers who continued the discussion of how to define the field of design history (Clark & Brody, 2009). In "Design History or Design Studies: Subject Matter and Methods" (1992), Margolin argued that design and design history are broad subjects that should be incorporated into the field of design studies. He explained that design "does not signify a class of objects that can be pinned down like butterflies"; rather, it is a constantly changing discipline that would benefit from being conceived of broadly (Margolin, 1992, p. 110). He asserted that incorporating design and design history into a field of design studies would encourage an exchange with other disciplines (Margolin, 1992). In response, in "A Reply to Victor Margolin" (1993), Adrian Forty explained that the field of design history is continuously developing and becoming more interdisciplinary, but as a branch of history, design history already has a suitable definition. He noted: "[a]ll that is needed is for us to get better at answering the questions that [the field of history] provokes" (Forty, 1993, p. 132). Further, in "Resisting Colonialism: Design History has its Own Identity" (1995), Jonathan M. Woodham added, Margolin "misrepresents the academic health and identity of design history (at least in Britain), understates the increasing opportunities for specialist design historical study . . . and largely overlooks the growing body of valuable research, exhibition and publication work in the field" (Woodham, 1995, p. 22).

Although these researchers were not in agreement about the future of the design history, their debates influenced the development of the field. This literature is credited with helping to develop the field of design history into an independent discipline by the end of the 1980s (Julier & Narotzky, 1998).

2.1.3 Broadening of the discipline and its objects of study, 1995 to present. In "Introduction: Foundations, Debates, Historiography, 1980-1995," Grace Lees-Maffei (2010a) explains that design history "benefited from these foundational debates and moved on, so that the majority of design historians working today embrace a broad conception of the discipline's scope" (p. 264). The discipline now has its own researchers, academic theory, journals and publications, and an increasing "complexity of voices and viewpoints" (Margolin, 2009, p. 96) and subject matter (Fallan, 2010).

Design history now addresses issues including design processes and practice, consumer behaviors (Lees-Maffei & Houze, 2010); different stages of the production-consumption model including design processes, manufacturing processes, distribution and consumption (Walker, 1989); and dynamic "relationships among things, people and ideas" (Fallan, 2010, p. viii). Design history "mediates" issues (Lees-Maffei, 2009, p. 366) to explore the "essential tension between ideology and practice, between mind and matter, between culture and commerce, between production and consumption, between utility and symbol, between tradition and innovation, [and] between the real and the ideal" (Fallan, 2010, p. viii). Further, it is an interdisciplinary field that is recognized for its ability to work with and contribute

to other fields (Lees-Maffei, 2010a). Nevertheless, debates persist within the field of design history, which indicates that the discipline continues to develop and evolve.

2.2 Current Debates in the Field of Design History

Despite significant development of the field of design history from the late 1960s to 1995, there are several issues and debates that continue. These include the definition of design and the design history discipline and its relationship with design practice, the interdisciplinarity of the field of design history, and the global perspective of the field of design history. Many of these issues are similar to those discussed during the 1980s and 1990s by Dilnot (1984a, 1984b), Margolin (1992), Forty (1993), and Woodham (1995).

2.2.1 Definition of design and the field of design history and its relationship with design practice. Although design historians have a good understanding of design, they are often criticized for having a narrow view of the field (Margolin, 2009). This causes problems for the design history discipline by limiting its subject matter and boundaries, and restricting its relationships with the wider fields of design and history (Margolin, 2009). As a result, there is pressure for design historians to establish a definition of design that represents a new and broader understanding of design (Litchman, 2009; Margolin, 1992, p. 110).

In “Some Futures for Design History” by Clive Dilnot (2009) and “Design in History” by Victor Margolin (2009), the authors suggest that a gap between design history and practice is responsible for design historians’ narrow understanding of

design. They propose that a stronger link between design history and practice would help design historians establish a more inclusive definition of design and recognize the complexity of subjects addressed by designers.

2.2.2 Interdisciplinarity of the field of design history. Design history and design are interdisciplinary subjects that are enriched by other academic fields. Design "stands between the two cultures of the arts and sciences" and is "dependent on and continuously informed or fed by them" (Blake, 1978, p. 56). Further, the depth of the design history discipline is attributed to the influence of fields such as material culture studies, anthropology, and ethnography, which offer a unique perspective towards design and help expand design history's area of study (Houze, 2010a). However, the field of design history is continually pushed to expand its scope and develop links with new academic fields.

Recently, design history was criticized for separating itself from other fields of history. In "Design in History" (2009), Victor Margolin argued that design history must begin to "engage actively with related fields such as business history, labor history, and the history of technology, invention, and engineering, or the histories of economics or even material culture" (Margolin, 2009, p. 96).

2.2.3 Global perspectives of the field of design history. As mentioned, design history is an ever-expanding field that deals with numerous interdisciplinary topics. Since the 1990s, interest has been growing in global design histories (Woodham, 2005). A global approach to design history is a critical "methodology" that helps the

field of design history address more complex subjects and develop as a discipline (Adamson, Riello, & Teasley, 2011, p. 3).

Until recently, most design history research addressed the West and the period of industrialization, but ignored design histories from different locations and time periods (Adamson, Riello, & Teasley, 2011; Lees-Maffei & Houze, 2010). In "Local, National and Global: Redrawing the Design Historical Map" (2005), Jonathan M. Woodham declared that the "design historical map of the early twenty-first century is little more developed in terms of content than that known to the explorers of the early sixteenth century" (p. 262). This is detrimental for the design history discipline, as a large amount of valuable information is missing (Woodham, 2005).

Although "global design history is a practice in its very infancy" (Adamson, Riello, & Teasley, 2011, p. 10), design has been global for centuries (Lees-Maffei, 2010b). Historically, trade routes transported design around the world and influenced "design dialogues between nations and cultures" (Lees-Maffei, 2010b, p. 467). Design historians must acknowledge this tradition and begin to explore these types of histories.

2.3 Conclusions

The field of design history concerns the history and context of design and represents perspectives drawn from various fields including anthropology, material culture studies, psychology, sociology, and history. It is recognized as an important field that

helps structure contemporary thought, establish traditions, and add coherence to design activities (Dilnot, 1984a; Margolin, 2009).

The field developed gradually in the early to mid-twentieth century based on a variety of research and literature and the need to develop university curriculum for design education. By the late 1960s, there was increasing attention towards the discipline and debates began about its definition and scope. These debates, which were milestones in the development of the field, emphasized the importance of socio-historical aspects of design history and helped to develop design history into an independent academic discipline by the end of the twentieth century.

Today, design history is a complex field that addresses issues ranging from design processes and practice, to consumption and the relationships between people, design, and ideas (Fallan, 2010; Lees-Maffei & Houze, 2010). As the field continues to develop and evolve, debates remain relating to the definition of design and the field of design history, the interdisciplinarity of design history, and global design history. As a result, for future work in the field of design history, it is important that: 1) a broad definition of design that relates to design practice is established; 2) the interdisciplinarity of the field is respected; 3) global design histories are represented.

2.4 The Design History Discipline as a Theoretical Framework for the Study of the History of Industrial Design Practice in Alberta

In this thesis, the study of the *History of Industrial Design Practice in Alberta* fits within the theoretical framework of the field of design history. It explores the history of industrial design practice in Alberta and investigates its social, cultural, and

economic contexts. Further, it addresses the aforementioned issues within the field of design history:

1. A strong, broad and well-accepted definition of industrial design is used (see Section 1.2). A direct link is formed between design history and practice, as this study explores the history of industrial design practice in Alberta.

2. Expertise and methodologies of other academic disciplines are applied (see Chapter 3). For example, the fields of sociology and cultural anthropology provide the foundation for the study of Alberta's development as a province, the social, cultural and economic context of design in Alberta, and the field of history provides the oral history methodology used to interview designers about the history of industrial design practice in Alberta. Further, different aspects of design and different stages of the production-consumption model are addressed (Walker, 1989). These include design and manufacturing processes and the relationship between people, design, and ideas (Fallan, 2010).

3. The study of regional design contributes to the global design historical map. Local design histories are increasingly valued and acknowledged by the field of design history. Vernacular design, "the use of local materials, practices, markets and networks," contributes to knowledge about design history outside regions traditionally studied (Lees-Maffei, 2010b, p. 468). Although the West has been the focus of the field of design history for many years, studies have dealt mainly with the United States and Europe (Lees-Maffei, 2010b). There have been relatively few studies about design history in Canada (Donnelly, 2006) and Alberta.

Recently, design historians “have tended to carve the past into small pieces and focus on specialized topics” (Margolin, 2009, p. 94). This thesis follows a similar trend. The study of the history of industrial design practice in Alberta is a precise topic that will contribute towards the design historical map in Alberta, Canada, and world-wide.

3. Methodology

In this thesis, the history of industrial design practice in Alberta is explored using a contemporary approach to design history as a theoretical framework. The research question and objectives are addressed by deduction, and descriptive and explorative research methods (Deslauriers & Kérisit, 1997).

To achieve major objective 1) *document and understand the history of industrial design practice in Alberta,* qualitative and quantitative research methods were applied. Since there is little information about industrial design in Alberta, a combination of research methods provides a thorough and accurate view of the field (Creswell, 2003). To provide context for the development of industrial design practice in Alberta, qualitative and quantitative research regarding regional development and urbanization, population, lifestyles, and social and cultural values in Alberta were conducted (see Section 3.1). To investigate the history of industrial design practice in Alberta, qualitative historical research (see Section 3.2) and oral history interviews (see Section 3.3) were conducted and quantitative statistical data (see Section 3.4) was gathered.

To achieve major objective 2) *pinpoint the factors, events, and trends in the history of industrial design practice in Alberta*, data gathered in objective 1 were paralleled and analyzed using concurrent analysis (see Section 3.5; Creswell, 2003).

Information was qualitatively interpreted and synthesized to determine factors, events, and trends in the history and development of industrial design practice in Alberta.

To address objective 3) *position this study and the history of industrial design practice in Alberta within the theoretical framework of the field of design history*, the methodology, focus, and outcomes of this study were contrasted with the theoretical framework, methodologies, and contemporary issues of the field of design history (see Section 3.6). Cross-examination provides insight into this study's relationship and contribution to the field of design history.

To address objective 4) *briefly sketch out the development of industrial design practice in Alberta in relation to the development of practice in Québec and Ontario*, outcomes of this study are contrasted with existing information about the development of industrial design practice in Québec and Ontario (see Section 3.7). Cross-examination provides perspective and a point of comparison for the history and development of industrial design practice in Alberta.

The methodologies, structure, and interrelationships between each step of data collection and analysis in this these are outlined in Figure 3-1.

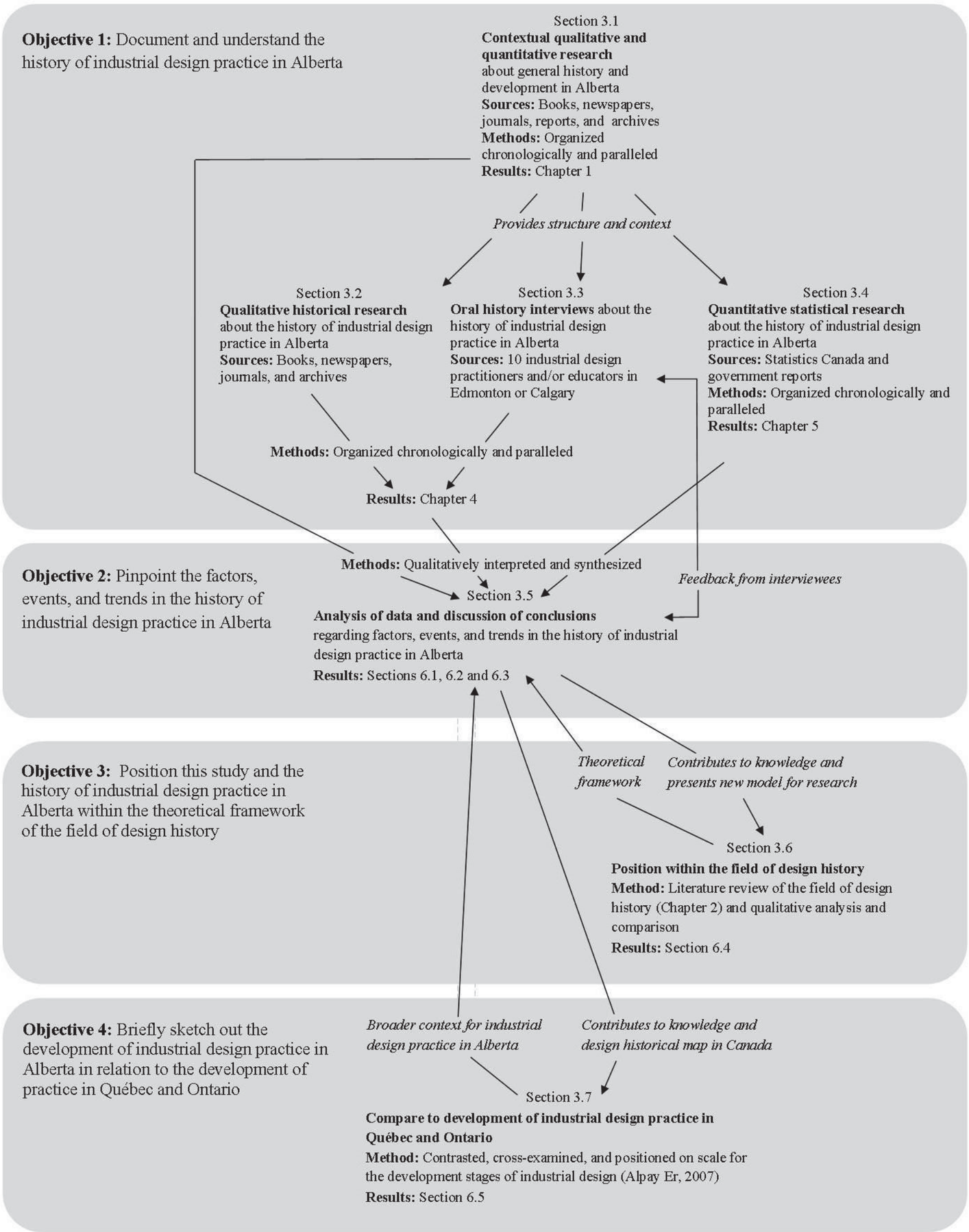

Figure 3-1. The methodology and structure of *Understanding the past to imagine the future: The history of industrial design practice in Alberta*

3.1 Contextual Qualitative and Quantitative Research about Alberta's History

Qualitative and quantitative research regarding regional development and urbanization, population, lifestyles, and social and cultural values in Alberta were conducted to provide context for the development of industrial design practice in Alberta. Qualitative information was gathered using historical methods to identify and review primary and secondary source materials including books, newspaper reports, academic publications, and archival documents. Resources were library collections at the University of Alberta and University of Calgary; e-journal databases including Academic Search Complete, Canadian Periodicals Index, and Canadian Newsstand[6]; and archives including Glenbow Museum Archives, Peel's Prairie Provinces, and Alberta Heritage. Quantitative information was gathered from primary and secondary sources including Statistics Canada, Government of Alberta economy and industry reports, and Alberta history books.

This research provides *invoqué* results, which is information developed independently of the researcher (Van der Maren, 1995). Quantitative data was graphed and qualitative and quantitative data were organized chronologically and paralleled. Next, chronologies were coded and categories of information were established. Finally, information was analyzed using concurrent analysis, which is the analysis of qualitative and quantitative data at the same time (Creswell, 2003). Through concurrent analysis, data was qualitatively interpreted and synthesized to determine factors, events, and trends in Alberta's development as a province. Results are summarized in Chapter 1.

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[6] Canadian Newsstand is an archive of Canadian newspapers. The *Edmonton Journal*, a major newspaper in Edmonton, and the *Calgary Herald*, a major newspaper in Calgary, were main resources.

3.2 Qualitative Research about the History of Industrial Design Practice in Alberta

Qualitative historical research regarding the history of industrial design practice in Alberta was conducted using historical methods to identify and review a variety of primary and secondary source materials including books, newspaper reports, design publications, and archival documents. Resources were library collections at the Université de Montréal, University of Alberta, University of Calgary, and WorldCat international library catalogue; e-journal databases including Academic Search Complete, Canadian Periodicals Index, Design and Applied Arts Index, and Canadian Newsstand; and archives including Glenbow Museum Archives, Peel's Prairie Provinces, Design Exchange Archives, and Alberta's Provincial Archives. Though this study focuses on design practice, related factors including manufacturing industries, research and development industries, design education institutions, and design subsidies were examined. Since there are few texts on industrial design in the province, literature about architecture, design, or craft were also explored.

An important resource and the only work of its kind was *The History of Industrial Design in Alberta, Canada: 1900–1992* by Denis Gadbois (1997). The study is available on CD-ROM at the University of Calgary library. Gadbois surveys early industrial design practitioners in Alberta and discusses trends in the development of Alberta's industrial design industry. Though it provides a valuable foundation of information, Gadbois' study is limited in scope and ends in 1992.

The qualitative historical research provides *invoqué* results (Van der Maren, 1995). Data was organized chronologically and paralleled with oral history results (see Section 3.3). Results are listed in Chapter 4.

3.3 Oral History Interviews about the History of Industrial Design Practice in Alberta

In view of the fact that the development of industrial design practice in Alberta is relatively recent, interviews were conducted with industrial design practitioners and educators in Alberta who have been involved in their respective industries since early days. This provides qualitative *suscités/d'interaction* results, which are based on information collected through interaction between the researcher and interviewee (Van der Maren, 1995). Since there is little information about the history of industrial design practice on the Prairies, oral histories provide the best source of information (Donnelly, 2006). Semi-structured narrative interviews (Creswell, 2003) were conducted with each interviewee to understand their perspective on the development of industrial design practice in Alberta. Through the use of open questions, interviewees were encouraged to discuss their perspective on industrial design practice and its relation with factors including local industries, markets, design education institutions, and government policies.

Interviewees were selected on the basis of their experience in industrial design practice or education in Alberta. They needed to be involved in the local design community through organizations, events, or design education institutions. Ideally, they had 20 years' experience working in Alberta and were able to discuss

changes to Alberta's industrial design industry over time. Some interviewees had less experience but were selected because of their important role and involvement in Alberta's industrial design practice and community. Finally, they needed to have good communication skills and a desire to share their experiences.

A list of potential interviewees was created from those active and well-known in Alberta's industrial design industry and through recommendations and word-of-mouth. Only two interviews were initially planned. However, complexity of the subject, physical size and distance in Alberta, areas of specialization of interviewees, and time periods that each interviewee practiced in Alberta meant that many narratives were required to develop a thorough understanding of the subject. Additional interviews were conducted based on recommendations of interviewees and personal contacts.

Ten interviews were conducted. Interviewees were Tim Antoniuk, John Greg Ball, Alan Boykiw, Denis Gadbois, Cezary Gajewski, Rob Gallant, Jacques Giard, Robert Lederer, Geoffrey Lilge, and Dr. Sean Maw. Five interviewees work primarily in Edmonton and five work primarily in Calgary. With the exception of Rob Gallant and Sean Maw, all interviewees have experience in both industrial design practice and education. Finally, five interviewees studied industrial design at the University of Alberta, but none studied industrial design at the University of Calgary. This limitation was unavoidable and resulted from the interviewees available to participate in this study.

Gender of the interviewees was not a factor in their selection. However, it is notable that all interviewees were men. There were few women available for

interview with similar expertise in industrial design practice in Alberta. Gender of industrial designers in Alberta was not explored in this thesis, but this observation may indicate that traditionally the most industrial designers in Alberta are male.

Table 3-1. List of interviewees.

Tim Antoniuk
▪Studied industrial design at the University of Alberta ▪Industrial design practitioner in Edmonton since the early 1990s ▪Taught in the University of Alberta's industrial design program since the early 2000s **Interview:** October 13, 2011, 11-12 pm, Edmonton Interview was recorded and transcribed (Appendix Figure 12)
John Greg Ball
▪Studied industrial design at the University of Alberta ▪Industrial design practitioner in Edmonton and Calgary since the mid-2000s ▪Industrial design instructor at the Southern Alberta Institute of Technology **Interview:** October 25, 2011, 7:30-7:55 am, telephone interview Interview was recorded and transcribed (Appendix Figure 13)
Alan Boykiw
▪Studied industrial design at Carleton University, Ottawa ▪Industrial design practitioner in Calgary since the mid-1980s ▪Worked for companies including Nortel and SMART Technologies ▪Has worked in design education at the University of Calgary and the Southern Alberta Institute of Technology **Interview:** October 25, 2011, 6:00-6:30 pm, telephone interview Interview was recorded and transcribed (Appendix Figure 14)
Denis Gadbois
▪Studied industrial design at the Université de Montréal and Cranbrooke Academy of Art, USA ▪Taught in the University of Calgary's industrial design program since 1989 **Interview:** October 7, 2011, 4:15-5:30 pm, Calgary Following Denis Gadbois' wishes, the interview was conducted in French. The interview was recorded and transcribed (Appendix Figure 15).
Cezary Gajewski
▪Studied industrial design at the University of Alberta ▪Administrator in the Department of Art and Design at the University of Alberta and associate professor in industrial design **Interview:** November 2, 2011, 9:00-9:20 am, Edmonton Following Cezary Gajewski's wishes, the interview was not recorded.

Rob Gallant
▪Machinist who began working for NovAtel in 1988 and stayed with the company after it was sold in 1992 ▪Works with industrial designers and in Alberta's electronics design and manufacturing industry **Interview:** December 12, 2011, 1:00-1:30 pm, telephone interview Interview was not recorded
Jacques Giard
▪Studied furniture design at the Institut des Arts Appliqués, Montréal and industrial design at Birmingham Polytechnic, UK ▪Industrial design instructor at the University of Alberta from 1975 to 1979 **Interview:** October 6, 2011, 9:00-9:45 am, telephone interview Interview was recorded and transcribed (Appendix Figure 16)
Robert Lederer
▪Studied industrial design at Sydney College of Arts, Australia and University of Alberta ▪Specialist in medical product design ▪Associate professor in industrial design at the University of Alberta since the late 1990s **Interview:** November 29, 2011, 11:30-12:00 pm, Edmonton Interview was not recorded
Geoffrey Lilge
▪Studied industrial design at the University of Alberta ▪Industrial design practitioner in Edmonton since the early 1990s ▪Has worked in design education at the University of Alberta **Interview:** October 20, 2011, 6:00-6:45 pm, Edmonton Interview was recorded and transcribed (Appendix Figure 17)
Sean Maw
▪Studied systems design engineering at the University of Waterloo and University of Alberta ▪In charge of establishing an industrial design program at Mount Royal University **Interview:** October 25, 2011, 2:30-3:00 pm, telephone interview Interview was recorded and transcribed (Appendix Figure 18)

Ethical considerations were important for this study since narrative research shares personal stories of interviewees and exposes their identity (Creswell, 2007). This project was granted ethical certification by the Université de Montréal (Appendix Figure 1). Interviewees signed consent forms to authorize use of information gathered in the interviews.

The interviews were conducted as follows: the interviewees were recruited by telephone or e-mail. Two weeks prior to the interview each interviewee was sent the list of interview questions to allow them time to prepare their responses (see Appendix Figures 2-11). They were encouraged to bring artefacts like photographs or correspondences to the interview to help direct the conversation and tell their story (Creswell, 2007). A single 20 minute to 1 hour long interview was conducted with each interviewee. The interview took the form of an informal one-on-one conversation. The interview was held at the time and location most convenient to the interviewee and the length of the interview depended on the schedule and availability of the interviewee. Several interviews were conducted over the telephone because of physical distance between the researcher and interviewee. Nevertheless, interviewees were encouraged to send artefacts like photographs or correspondences via e-mail. Following the interview, the interviewee remained in contact with the researcher and was encouraged to contact the researcher with additional comments or ideas.

Interview questions were standard for all interviewees with several exceptions (Appendix Figures 2-11). Small variations reflected the location of the interviewee and their area of specialization in design practice or education. Interviews with Rob Gallant and Robert Lederer were more focused. These interviews were conducted towards the end of the interview period. Gallant and Lederer were recruited for their expertise in specialized and little known domains of industrial design practice. Interview questions were directed specifically at their areas of specialization and interviews were brief and not recorded.

To provide context for results, all interviewees were asked to describe their definition of industrial design. This question provided a standard upon which to evaluate results and helped to verify consistency of results.

The interviews provided the basis for creating oral history narratives of the participants' industrial design practice and understanding of the development, strengths, and focus of Alberta's industrial design industry. To prepare for analysis of the data, the interviews were transcribed and additional correspondence with the interviewees was noted (see Appendix Figures 2-18). To help verify the validity of results and accuracy of analysis, feedback was sought from the interviewees (Maxwell, 2000). Interviewees received a list of the major themes discussed during their interview, and an analysis of their responses. Interviewees were encouraged to offer comments and revisions. Using the restoring technique, the narratives were re-organized into a chronology of events (Creswell, 2007). The chronologies were paralleled with qualitative historical information gathered in Section 3.2. In addition to enabling analysis, parallel comparison between the narratives and the qualitative research exposes possible gaps or contradictions in the narrative histories (Creswell, 2007). Further, this organization was more efficient and clear. In many cases, qualitative information supplements oral history narratives by providing dates, names, and places. Results are listed in Chapter 4.

3.4 Quantitative Research about the History of Industrial Design Practice in Alberta

Quantitative statistical research regarding the history of industrial design practice in Alberta was conducted following the structure of the text, *Designing the Economy: A Profile of Ontario's Design Workforce* by Meric S. Gertler and Tara Vinodrai (2004). Gertler and Vinodai gathered and analysed statistics from Statistics Canada's census data to provide an overview of the design industry and design workforce in Ontario. Following this model, statistical information regarding the operating revenue, profit margin, design establishments, and clients of Alberta's industrial design industry were collected, organized chronologically, and analyzed. This provides quantitative *invoqué* results (Van der Maren, 1995).

Similar to Gerler and Vinodrai, Statistics Canada was the major source of data. Statistics Canada has a large quantity of reliable information about design in Canada and is one of the only sources for such statistics. Gertler and Vinodrai purchased 'custom tabulations' of statistical data. However, this thesis relied on free data available through Statistics Canada's CANSIM database. The major source of information was Statistics Canada's *Service Bulletin: Specialized Design Services*, a report that has been published annually since 1998. The most current issue dates from 2009.

The *Service Bulletins* publish statistics about Canada's design industries as defined by the North American Industry Classification System (NAICS). NAICS defines "Industrial Design Services" as "establishments primarily engaged in creating and developing designs and specifications that optimize the function, value and

appearance of products" (Statistics Canada, 2007a, p. 436). The category includes automobile design, furniture design, packaging design, and design of scale models, but excludes establishments focused primarily on "designing [and] subcontracting the manufacturing and marketing of products" and "applying principles of engineering in the design" (Statistics Canada, 2007a, p. 436). In addition to industrial design, the *Service Bulletins* outline statistics about interior design, graphic design, landscape architecture (until 2006), and "other specialized design services" such as fashion and textile design (Zeman, 2001, p. 1). Other types of design such as architecture and drafting are not included in this category (Statistics Canada, 2007a). Overall, the *Service Bulletins* track revenue, expenses, number of design establishments, type of design clients, and sales of Canada's design industries. Statistics are organized nationally, by province, and by industry.

In this thesis, statistics for Alberta's industrial design industry were gathered, graphed, and analyzed through mixed qualitative and quantitative methods (Creswell, 2003). To provide context for the statistics, industrial design in Alberta was compared with other Canadian provinces and with graphic design and interior design in Alberta. Graphic design and interior design are featured in the *Service Bulletins* and provide a strong, consistent, and reliable contrast for industrial design. Landscape architecture and other specialized design services were not used for comparison due to the inconsistency of their categories.

There are several limitations of data presented in the *Service Bulletins*, namely:

(1) Since the "design sector is relatively small and new," it was not until recently that Statistics Canada began to see design industries as economic sectors (Price Waterhouse, 1996, p. 24). Until the NAICS system was adopted by Statistics Canada in 1997, design industries were classified together with "other business services" and there were few statistics available about Canada's design industries (Zeman, 2001, p. 2). Thus, the *Service Bulletins* provide information from 1998 to 2009, but it is difficult to determine the state of industrial design in Alberta before that point.

(2) Due to what Statistics Canada called the unreliability or confidentiality of data, some statistics were withheld. For example, they did not release information about design in Canada's provinces from 2000 to 2002 or about industrial design in 2007.

(3) Although the *Service Bulletins* group statistics by province, there was an exception in 1998 and 1999 (Zeman, 2001, 2002). In those years, statistics from Québec, Ontario, and British Columbia were listed by province, while statistics from other provinces were grouped by region. Alberta was grouped within Canada's Prairie region, which also includes Saskatchewan and Manitoba. As a result, in this study, statistics for Canada's Prairie region represent Alberta in 1998 and 1999. They provide the most accurate estimation of statistics from Alberta in those years.

Despite these three issues, the data that is available in the *Service Bulletins* is rich and detailed and allows for a strong and reliable analysis.

Supplementary information was gathered from other primary sources including Government of Alberta industry reports and Government of Canada industry reports. Quantitative historical results were graphed, organized chronologically, and paralleled. Results are listed in Chapter 5.

3.5 Analysis of Results

Chronologies of events established through contextual research, qualitative historical research, oral history interviews, and quantitative statistical research were paralleled and cross-examined. Triangulation of data enables the most accurate analysis of data and fills gaps in information (Maxwell, 2000). Chronologies were coded and categories of information were established. Finally, information was analyzed using concurrent analysis (Creswell, 2003). Information was qualitatively interpreted and synthesized to determine factors, events, and trends in the history of industrial design practice in Alberta. Results of the analysis are listed in Chapter 6.

3.6 Position of this Study in Relation to the Field of Design History

A literature review was conducted on the field of design history. Books and articles about the discipline were reviewed and analyzed. The texts were ordered chronologically and coded to develop categories of information, arguments, and approaches to understanding and addressing the discipline. The development of discourse, changing focus and methodologies within the field, and current issues and debates within the field were identified. Results are listed in Chapter 2.

This study was structured based on the theoretical framework of the field of design history. The methodology, focus, and outcomes of this study were cross-examined with contemporary issues and approaches to design history identified in the literature review. Qualitative analysis positions this study within the field of design history and provides insight into this study's relationship and contribution to the discipline. Contribution to new knowledge and introduction of a new model for design history research were noted. Results of the analysis are listed in Section 6.4.

3.7 Development of Industrial Design Practice in Alberta in Relation to Practice in Québec and Ontario

This study's outcomes regarding the history and development of industrial design practice in Alberta were contrasted with existing information about the development of practice in Québec and Ontario. Qualitative historical information and quantitative statistical information regarding industrial design revenue, profit margin, design establishments, and clients were considered. To maintain the scope of this objective, the majority of data about Québec and Ontario was gathered from two sources. Qualitative historical information was gathered from *Design in Canada since 1945: Fifty Years from Teakettles to Task Chairs* by Gotlieb and Golden (2004) and quantitative statistical information was based on results outlined in Chapter 5.

Data regarding the history and development of industrial design practice in Alberta was paralleled and analyzed against information regarding Québec and Ontario. To provide perspective and enable analysis, design practice in Alberta, Québec, and Ontario were positioned on the "Development Stages of Industrial

Design in [Newly Industrialized Countries]"scale presented by Alpay Er (1997). The scale is designed to situate the development of industrial design practices in different countries and regions. Though the scale was designed for newly industrialized countries, the author also applies the scale to fully industrialized countries (Alpay Er, 1997). The scale provides categories for comparison including "sectorial scope of industrial design," "industrial design at firm level," and "industrial design education and research" (Alpay Er, 1997, p. 301). The author notes that the scale is particularly useful in studies involving the historical development of industrial design industries, as it can be used to track development over time (Alpay Er, 1997). Nevertheless, Alpay Er's scale is limited because it does not take into account globalization dynamics and the delocalization of production. Consideration of these factors may impact understanding of the development of industrial design practices in Alberta, Québec, and Ontario. Results of the analysis are listed in Section 6.5.

4. Results of Qualitative Historical Research and Oral History Interviews

In this chapter, the development of industrial design practice in Alberta from 1968 to present is discussed based on data from qualitative historical research and oral history interviews.

4.1 Before 1968

Despite its isolated location, Alberta has always had strong connections and communication with Québec and Ontario, and Albertans have been aware of mainstream North American design (Wetherell & Kmet, 1991). Beginning in the 1890s, newspapers and publications displayed design plans for home construction, and new products and building materials were shipped to Alberta by train (Wetherell & Kmet, 1991). For the most part, Albertans followed this design model; however, traditional 'frontier' values held "frugality and pragmatism to be virtues and pretensionism a sin" so people often favoured simple and efficient designs and modest materials (Fong, 2010; Wetherell & Kmet, 1991, p. 70).

For the first half of the twentieth century Alberta's major industries were cattle ranching and agriculture (Francis & Palmer, 1985). There were few manufacturing industries, so the facilities and support for industrial design work were minimal. Early industrial designers were untrained; they were handymen who created

designs to facilitate their everyday lives and livelihoods (Gadbois, 1997). Their work typically involved adaptations or modifications to imported agricultural machinery to address Alberta's climate or landscape (Gadbois, 1997). Examples include Frank and R.A. Van Slyke's 'Van Slyke Breaking Plow' (see Figure 4-1) in 1910, Roy Mills' 'Mills Wire Weeder' (see Figure 4-2) in 1927, and Charles Sherwood Noble's 'Noble Blade Cultivator' (see Figure 4-3) in 1936 (Gadbois, 1997).

Figure 4-1. Van Slyke Plow by Frank and R.A. Van Slyke, 1910. Retrieved from http://ww2.glenbow.org

Figure 4-2. Mills Wire Weeder by Roy Mills, 1927. Retrieved from http://ww2.glenbow.org

Figure 4-3. Noble Blade Cultivator by Charles Sherwood Noble, 1942. Retrieved from http://ww2.glenbow.org

The exception to the lack of manufacturing and industrial design work was the ceramics industry in Medicine Hat (see Figure 1-1) in southern Alberta. Local clay deposits and natural gas drove a strong ceramics industry in the first half of the twentieth century (Hayward, 2001). Initially, the industry specialized in engineered building materials, including sewer pipes and bricks, but in 1915 Medalta Stoneware Company Ltd[7] was among the first to expand production to household goods (Hayward, 2001). Medalta's industrial design products included crocks, jugs, kitchenware, and decorative painted pottery (see Figures 4-4 and 4-5; Hayward, 2001). In *The History of Industrial Design in Alberta*, Gadbois identified Thomas Hulme, art director and designer for Medalta Potteries from 1929–1954, as Alberta's first industrial designer (Gadbois, 1997; Hayward, 2001). Medalta operated until 1954, when it closed because of increased costs and competition (Hayward, 2001).

Figure 4-4. Medalta Potteries Ltd, Worcester style cup for Rosh Pina synagogue, 1952. Retrieved from http://medalta.org

[7] Medalta Stoneware Company Ltd was renamed Medalta Potteries Ltd in 1924 (Hayward, 2001).

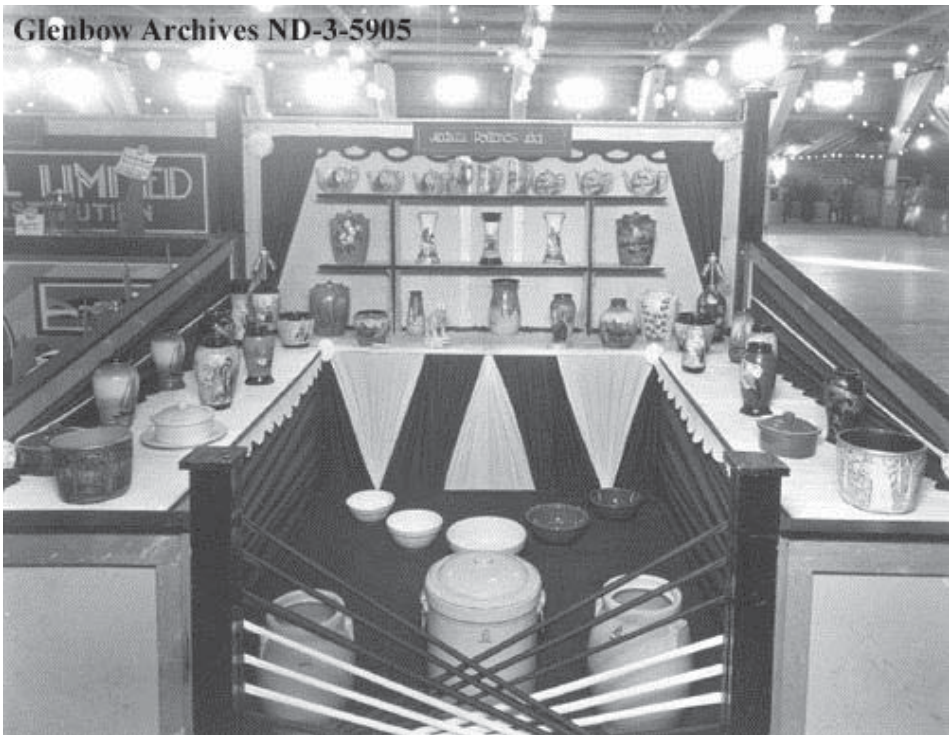

Figure 4-5. Medalta Potteries Ltd, 1931. Photo of Medalta booth at "Produced in Alberta" exhibition in Edmonton, Alberta. Retrieved from http://ww2.glenbow.org

Following a large discovery of oil in Alberta in 1947, the province's manufacturing industries, particularly those that served the oil and gas industry, grew and transformed (Alberta Heritage, 2003a; Gadbois, 1997). Industrial design work remained scarce, but industrial designers occasionally collaborated on design and manufacturing of vehicles and shelters to enable access to resources in remote locations (Gadbois, 1997). Examples include Hay and Harding's 'Alberta Bus' (1958) and, though engineering based, Bruce Nodwell's 'Nodwell Tracked Carrier' (1950s; see Figure 4-6; Alberta Heritage, 2003c; Gadbois, 1997).

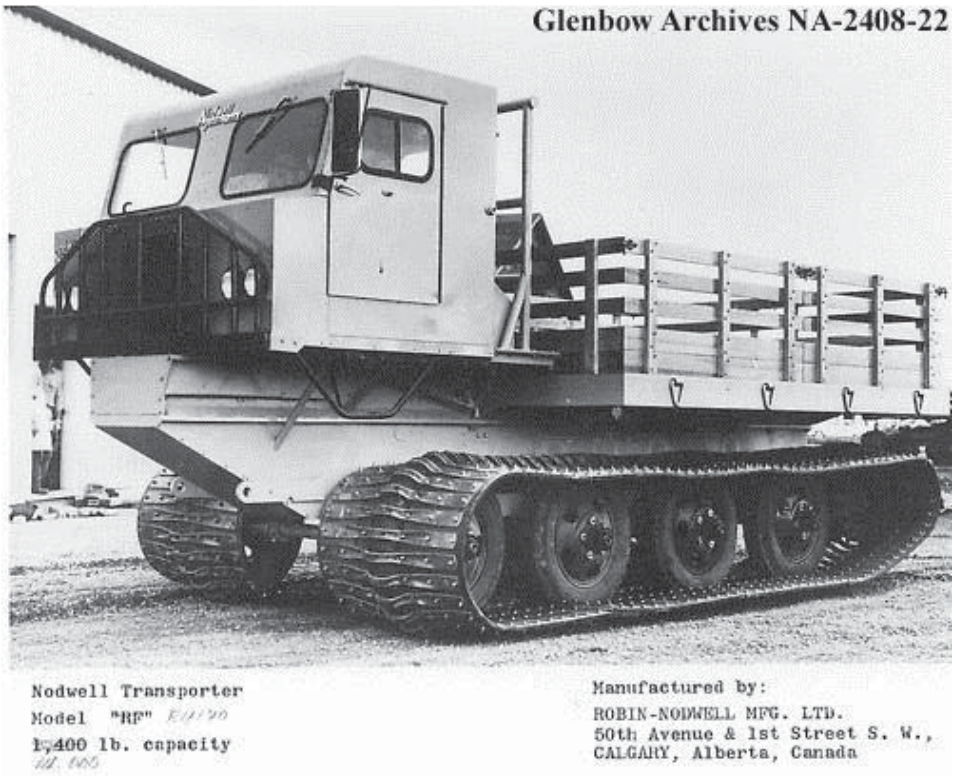

Figure 4-6. Nodwell Tracked Carrier designed by Bruce Nodwell and manufactured by Robin-Nodwell Manufacturing Ltd, 1960s model. Carrier designed to transport drill pipes in oilfield applications. Retrieved from http://ww2.glenbow.org

In the 1950s, Alberta's cities experienced a building boom (Boddy, 1987). In Calgary and, to a lesser extent, Edmonton, suburban living surged and downtowns were redeveloped in order to attract oil companies and investors (Boddy, 1987; Forseth, 2000; Stamp, 2000). Historical sources do not mention the incorporation of industrial design principles in architecture during this period. In the new suburbs, Albertans sought space and quality of life rather than high design (Stamp, 2000). People purchased modern appliances and conveniences, but the majority of these products were designed and manufactured outside the province (Alberta Heritage, 2003a; Stamp, 2000).

4.2 Industrial Design Education

The introduction of industrial design education programs in Alberta in the 1960s to 1980s was the first step in developing Alberta's industrial design industry, beginning at the University of Alberta (U of A) in Edmonton in 1968, followed by the University of Calgary (U of C) a decade later (Price Waterhouse, 1996).

4.2.1 University of Alberta. The U of A introduced an industrial design undergraduate program in 1968 and a graduate program in 1970 (Price Waterhouse, 1996; University of Alberta Archives, 1992). The programs were based in the Department of Art and Design, and students graduated with a Bachelor of Fine Arts or Master of Fine Arts degree (University of Alberta Archives, 1992).

Jacques Giard, an industrial design instructor at the U of A from 1975 to 1979, described the program's early development. He explained that the Department of Art and Design was based on a British model of art and design education in which schools taught fine arts together with a design component. When first established at the U of A, industrial design courses focused on arts and crafts rather than professional practice. Giard was the first industrial design practitioner to teach in the department. He felt that previous instructors did not fully understand the field of industrial design. He noted a lack of attention to manufacturing, materials, processes, human factors, anthropometrics, and ergonomics: "by November, I can tell you, I wanted to get out of that place as fast as I can . . . I'm thinking to myself, they don't know what they are doing. It was a circus."

In 1976, Giard became design unit coordinator and implemented changes to the department. Under his leadership, the industrial design program became more technical, though it remained predominantly arts based. During this period, approximately 10-12 students graduated from the program each year. Most were from Alberta and were drawn to the program's workshops and facilities. It was also the only industrial design program in the province.

Little information is available about the program's development in the 20 years after 1979 (interviewee Giard left at this time). Tim Antoniuk, associate professor in the department today, described that the program struggled during the 1980s and 1990s and nearly shut down several times, but no public records are available about the problems it faced. In 1996, the department received a grant to redevelop the design program with the aim to increase enrollment and better prepare graduates for the job market (Frascara, 2001). The new format distinguished between fine art and design students and granted Bachelor of Design and Master of Design degrees (Frascara, 2001). Design students studied industrial design and specialized in computer science, engineering, business, or social sciences (Frascara, 2001). Antoniuk explained that the change provided the "infrastructure roots that allowed a massive amount of flexibility in who we could become."

Today, the program remains relatively arts based and theoretical, but it is recognized for its interdisciplinary studies model. Cezary Gajewski, administrator and associate professor in the department, noted that the program provides students with a well-rounded multidisciplinary education, helps progress the idea of design, and teaches current design methodologies and ideologies. The program grew with

additional staff hired in the early 2000s. There are currently three full-time professors. Although the precise number of students studying industrial design was unavailable, student exhibition catalogues from 2009 and 2010[8] list 10-12 graduates specializing in industrial design each year (Department of Art and Design, 2009, 2010).

4.2.2 University of Calgary. From 1981[9] to 2008, the U of C offered industrial design graduate degrees within their Environmental Design Department (D. Gadbois, personal communication, October 7, 2011; Price Waterhouse, 1996). The program focused on research, sustainable design, multi-media, design entrepreneurship, and human factors (Gadbois, 1997). Denis Gadbois, senior instructor in industrial design at the U of C, described the development of the program. He explained that it was established as a natural expansion of the Environmental Design Department to offer "depth of looking at the [design] professions" and to fill a void for graduate-level industrial design education in Alberta.[10]

Giard was working at the U of A when discussions began about an industrial design program at the U of C. He explained the reaction from the U of A: "out of the blue [the U of C] decided that they were going to start an industrial design program.

[8] No exhibition catalogues are available from 2011.

[9] Conflicting dates are provided for the beginning of the industrial design program at the U of C. They range from 1978 (Price Waterhouse, 1996) to 1981 (Gadbois, 1997, personal communication, October 7, 2011).

[10] Gadbois did not mention the U of A's graduate-level industrial design program. However, the U of A's program was not a professional design program.

And we were fighting it on the basis that it was difficult enough to keep one design program alive in Alberta. Why did we want another one? It just didn't make sense."

The decision to establish an industrial design program at the U of C may have been politically motivated and established through provincial government funding and support (see Section 4.5.1). The program was intended to help diversify Alberta's economy and its manufacturing industries. Gadbois explained: "The program was not a reaction to industry because industry never needed industrial design. We were supposed to increase diversity by producing industrial designers." The difficulty, he explained, was "with manufacturing and industrial designers, which comes first? . . . How can we place our industrial designers except in companies?" [11]

At the time, Alberta had few manufacturing companies and those that existed were not interested in working with industrial designers. Gadbois explained that the impact of the program "was supposedly to diversify industries in Alberta. . . . The industry didn't respond well. They never really diversified in the way it was supposed to be" (see Section 4.5.1).

The U of C's industrial design program was discontinued in 2008. Currently, students can focus on industrial design in their master's thesis, but courses in the field are no longer available. Industrial design cannot be studied at the PhD level because the university no longer has a supervisor in this area. From 1988 to 2008, the program had an average of 8 graduates per year with a total of 122 graduates overall. Of these students, 80% were from Alberta, and none were graduates of the U of A's industrial design program.

[11] The interview was conducted in French and English. Afterward, I translated French passages into English.

4.2.3 Review of industrial design education at University of Alberta and University of Calgary. The U of A's industrial design program is seen as arts-based and theoretical, while the U of C's program was relatively technical and focused on research. However, graduates of U of A and, to a lesser extent, U of C have difficulty finding work in their field in Alberta. A lack of technical training at both schools is often blamed (J. G. Ball, personal communication, October 25, 2011; S. Maw, personal communication, October 25, 2011). Additional industrial design programs have been developed to address this issue or are in the planning stages. These include programs at the Southern Alberta Institute of Technology (SAIT) and at Mount Royal University (MRU), both in Calgary.

4.2.4 Southern Alberta Institute of Technology. SAIT established a Mechanical Design Technology program in 2002/2003[12] that focuses on product development and the technical functionality of products. John Greg Ball is an instructor in the program and he explained its focus and its place in Alberta.

> What appeals to me here . . . is [that] SAIT is really about coming up with class and lesson plans that align with what industry wants. We do talk about industrial design but not as much in a broad conceptual base as much as we talk about it in a technical-goal base, and that really has a place in Alberta.

Compared with graduates of the U of A and U of C, students at SAIT more easily find jobs in Alberta. However, Ball reports that their jobs are "not as glamorous as

[12] Dates provided by Lyndal Turner, Mechanical Design Technology instructor at SAIT (personal communication, February 14, 2012).

most of us imagine industrial design to be. . . . A lot of our students are working in oil and gas. They work for metal manufacturers or plastic manufacturers."

4.2.5 Mount Royal University. MRU is in the planning stages of establishing a Bachelor of Industrial Design program. Dr. Sean Maw, associate professor in math, physics, and engineering, is in charge of this project. He described the development of plans. Discussions were initiated seven years ago when MRU was looking for "niche 4-year degrees." Through consultations, they concluded that a technical industrial design program was missing in Alberta. The proposed program at MRU would provide industrial design students with training similar to the level of first-year engineering students. The target would be to admit 40 new students each year.

Little work has been done towards developing the program in the past two years. Maw noted that the economic recession stalled the project. However, Alan Boykiw, an industrial designer and consultant for the program, explained that their "biggest thing was getting funding to get it started and [Maw] had to prove there would be demand for industrial design grads in Alberta. . . . That was their biggest hurdle."

4.3 Relationship between Industrial Design Education and Practice in Alberta

The industrial design programs in this survey play an important role in the development of industrial design practice in Alberta and design communities in Edmonton and Calgary. The programs at U of A and U of C are especially significant

because they have been in operation for decades and they began when the field was emerging in western Canada.

The U of A and U of C have a different focus and different contributions to industrial design practice in Alberta. The social, cultural, and economic contexts in Edmonton and Calgary inspired the programs, and in turn, the programs impacted industrial design practice in each city. Edmonton and Calgary have a different approach to design and different opportunities for designers. There are more industrial design jobs in Calgary, but Edmonton has a stronger design community and more arts and culture jobs (T. Antoniuk, personal communication, October 13, 2011; J. G. Ball, personal communication, October 25, 2011; D. Gadbois, personal communication, October 7, 2011). Industrial designers in Calgary occupy traditional industrial design jobs, while in Edmonton they work in contemporary craft, grass-roots design, and related fields including exhibition design (T. Antoniuk, personal communication, October 13, 2011; D. Gadbois, personal communication, October 7, 2011). Interviewees linked this to the different characters of the two cities: Edmonton as a blue-collar, government city and Calgary as a slightly wealthier, white-collar city (T. Antoniuk, personal communication, October 13, 2011; D. Gadbois, personal communication, October 7, 2011; Statistics Canada, 2011c).

Antoniuk noted that “there are some really amazing things starting to happen in Edmonton. . . . People can sense that things are changing in Edmonton’s creative economy.” Though industrial designers in Calgary and graduates of U of C and SAIT can more easily find jobs in their field, industrial designers in Edmonton and

graduates of the U of A are credited with raising the profile of industrial design in Alberta (J. G. Ball, personal communication, October 25, 2011).

4.4 Industrial Design Associations

There have been several attempts at establishing a professional industrial design association in Alberta. Gadbois explained that from 1981 to 1984, Alberta was part of the Association of Canadian Industrial Designers (ACID). Initially, the association had strong membership with 22 members and 40 student members, but it closed in 1984 when membership numbers dropped to 4 or 5. A second attempt was made from 2002 to 2006 when Alberta joined the Industrial Designers Society of America (IDSA). However, the association struggled due to lack of interest, high membership fees, and lack of leadership. Boykiw explained that Dedre Toker, the Chapter's Chair, was energetic and dedicated, but became too busy to continue in that role. Gadbois noted that the U of C became a strong supporter of the association, but their support ended when the U of C's industrial design program was discontinued.

Today, there are several local design organizations, but none that represents Alberta industrial designers at a provincial, national or international level, or who deal with professional or organizational issues of the profession. Associations include the Industrial Designers of Edmonton Association (IDEA) and Media, Art and Design, Exposed (MADE) from Edmonton (IDEA, n.d.; M.A.D.E., 2010). No comparable industrial design associations exist in Calgary.

4.5 Industrial Design Practice

Giard explained that in the 1970s when the U of A's industrial design program was first established, "the whole concept of industrial design in Canada, more so in western Canada, was relatively new." In Alberta, "you are in the middle of nowhere as far as industry . . . [so] there wasn't much work to be had. . . . Eventually, that's why I left after four years. It is because it's one thing to be teaching industrial design at a university, but it's something else to not actually see it around you."

Work for industrial designers was limited to the following companies: Abacus Engineering (pump jacks and pipe painting machines for the oilfields), Climax Industries Ltd (garbage can trolleys), Clobbergampe of Edmonton (display systems), Hoverlift Systems of Calgary (hovercrafts), International Brick and Tile of Edmonton (ovenware), International Quality Foods (bakery equipment), Kellough Brothers (ploughs), Leisure Ltd (band saws and pottery wheels), Skyline Imports (horse whips), and Western Urethane Panels (modular homes; "Companies in the news", 1978; French, 1979; J. Giard, personal communication, October 6, 2011; Hughan, 1978).

4.5.1 Economic diversification. In 1971 Alberta's government began to plan for the diversification of the provincial economy (Foster Research & SRI International, 1980). Alberta was seen as too dependent on natural resources and the energy sector, which put the province at risk of a boom-and-bust economy (Canada Western Diversification Office, 1987; Foster Research & SRI International, 1980). Further, discussions were increasing about a National Energy Policy that was projected to

result in lower oil production and job loss in the province (see Section 1.1.1; Foster Research & SRI International, 1980; Goyette & Roemmich, 2004; Voisey, 2004).

With federal government support in the 1970s and 1980s, Alberta explored ways to diversify its economy (Vanterpool, 1980). The goal was to invest in up-and-coming industries and export-oriented manufacturing industries, the latter being a category that was uncommon in Alberta at the time (Foster Research & SRI International, 1980). Of relevance to industrial designers was a focus on high technology, telecommunications, and electronics and micro-electronics (Foster Research & SRI International, 1980; Hnatiuk, 1980). The medical device industry was also chosen because of its relation to these industries (Fontana, 1981).

To support diversification, provincial stimuli and grants were provided and the government's Alberta Research Council collaborated with the U of A and U of C[13] (Foster Research & SRI International, 1980). Interviewee Gadbois indicated there may have been collaboration between the Alberta Research Council and the U of C's industrial design program.

4.5.2 Electronics industry. Alberta's electronics industry thrived, aided by provincial tariff support, from 1988 to 1996 (Atkinson, 1989; D. Gadbois, personal communication, October 7, 2011). Primary markets were the petroleum industry, computer industry, telecommunications, agriculture, and defence (Electronics Industry Association of Alberta, 1988). Employment for industrial designers was

[13] Documents regarding collaboration between the Alberta Research Council and U of A and U of C are held at the Provincial Archives of Alberta index F96.468. They are protected by Alberta's Freedom of Information and Protection of Privacy Act (FOIP Act). The documents are available at a fee upon formal request.

based primarily in Calgary. Several designers were active in telecommunications and worked for NovAtel Communications and Northern Telecom (Nortel) (A. Boykiw, personal communication, October 25, 2011; D. Gadbois, personal communication, October 7, 2011).

NovAtel Communications was established in 1983 through collaboration between Nova Corp. and Alberta Government Telephone (AGT) (Auditor General of Alberta, 1992; Nelson, 1999). NovAtel specialized in cellular technology and manufactured cell phones and cellular radio systems (Auditor General of Alberta, 1992). The headquarters were in Calgary with a manufacturing facility in Lethbridge in southern Alberta (see Figure 1-1; Electronics Industry Association of Alberta, 1988). The provincial government assumed full ownership in 1989, but NovAtel struggled because of financial and management issues (Auditor General of Alberta, 1992; R. Gallant, personal communication, December 12, 2011). The provincial government sold the company to the private sector in 1992 for a significant loss (Gignac, 2000; Nelson, 1999). Part of the company was sold to Nortel and part was sold to an investor who transformed the company and its focus (R. Gallant, personal communication, December 12, 2011).

Nortel was founded as a digital technology company in 1976 (Electronics Industry Association of Alberta, 1988; MacDonald, 2000). They produced a range of telecommunications products including equipment and software (Austen, 2009; MacDonald, 2000). Though not based in Alberta, at their peak in 2000, Nortel had three manufacturing facilities and a research and development office in Calgary (Alberta Economic Development, 2000; “Key dates”, 2009; Obee, 1995). In 2009,

Nortel filed for bankruptcy and the company withdrew from Calgary ("Key dates", 2009; Teel, 2008).

Alberta's electronics industry continues to exist. It has expanded across Alberta, but remains based primarily in Calgary (R. Gallant, personal communication, December 12, 2011). Today, the electronics industry focuses on telecommunications equipment, consumer products, and, to a lesser extent, the oil and gas industry (R. Gallant, personal communication, December 12, 2011). BW Technologies is an example of a successful electronics design company in Calgary (see Section 4.5.6).

4.5.3 Medical device industry. Aided by provincial support and grants, the medical device industry thrived beginning in the 1980s (R. Lederer, personal communication, November 29, 2011). Robert Lederer, medical designer and associate professor in industrial design at the U of A, described the development of the industry. The medical device industry focused on a variety of types of medical design. Product development was conducted through private practice and university research. Compared with Alberta's other design and manufacturing industries, the medical device industry is distributed across Alberta and is relatively stable. PriMed Medical Products is an example of a company that has experienced enduring success in Alberta (see Section 4.5.6).

4.5.4 Office furniture. Office furniture is a category of industrial design and manufacturing that developed independently and has experienced long-standing success in Calgary. Several companies design furniture and workspaces for Calgary's corporate offices and headquarters. SMED is a key example of an office furniture company that was active in the 1990s and 2000s. It was established by Mogens Smed in 1996 (Verburg, 1999). The company designed custom office interiors and office furniture (Verburg, 1999). SMED had a large manufacturing plant in Calgary and employed approximately 12 alumni of the U of C's industrial design program (D. Gadbois, personal communication, October 7, 2011). In 2000, the company was purchased by Haworth, an American office furniture company, who later, in 2009, closed the Calgary plant and moved their North American manufacturing operations to Michigan as a cost-saving measure ("600 Calgary jobs", 2009).

4.5.5 Furniture and home products. Edmonton is recognized for design of contemporary furniture and home décor, and studio manufacturing and craft-based design practices. Studio manufacturing "bridges craft and industry"; a studio manufacturer is a designer-manufacturer who "acquires finished components, or else subcontracts these to small specialized industries, then assembles and fine-tunes the product in his studio" (Gotlieb & Golden, 2004, p. 34). Studio manufacturing has limited production and is often developed because of limited manufacturing opportunities (Gotlieb & Golden, 2004). In Alberta, studio manufacturing is often a craft-based design practice. Designers conduct studio manufacturing because of limited manufacturing opportunities, but also because of appreciation for handmade

production methods. Major examples of design companies are Hothouse and Pure Design. Both were established by U of A industrial design graduates and were active in the 1990s and 2000s. They specialized in contemporary furniture and home products made from metal and wood, and recognized themselves as groundbreakers in Edmonton (Phillips, 2002). Tom Sharp of Hothouse explained, "there was really no one to model ourselves on and there certainly wasn't anyone knocking on the door looking for protégés" (cited in Phillips, 2002, para. 5).

Tim Antoniuk of Hothouse and Geoffrey Lilge of Pure Design discussed the development of both companies. Hothouse was formed in 1993 by seven graduates of the U of A's industrial design program and one graphic designer who studied at Grant MacEwan College[14] in Edmonton. Antoniuk explained that "we formed a collective and were very idealistic about what we were going to do. . . . [W]e all had our own designs, our own little businesses, but we fell under the Hothouse name." In 1994, members Geoffrey Lilge, Dan Hlus, and Randy McCoy left Hothouse and started their own company called Pure Design (Alberta Heritage, 2003b). Lilge explained that they wanted a more professional shop and to "take it to the next level of manufacturing."

Hothouse and Pure Design were stylistically different with different marketing strategies "but essentially we were pretty similar" (G. Lilge, personal communication, October 20, 2011). Pure Design designed as a group rather than as individuals. They had a diverse collection of products and a marketing plan that involved working with outside designers including Karim Rashid, Scot Laughton,

[14] Grant MacEwan College became Grant MacEwan University in 2009 (Grant MacEwan University, 2011).

and Richard Hutten (see Figures 4-7 and 4-8). Antoniuk explained that when Pure Design was formed, the remaining members of Hothouse followed their model and began to design collectively. Compared with Pure Design, the Hothouse collection was more unified (see Figures 4-9 and 4-10).

Figure 4-7. Jim Stool by Scot Laughton and James Bruer for Pure Design, 1997 (Design Exchange, 2007). Retrieved from http://www.puredesignonline.com

Figure 4-8. Bongo Lamp/Stool by Karim Rashid for Pure Design, 1999. Retrieved from http://www.puredesignonline.com

Figure 4-9. Hothouse Otter CD Rack, 1995. Photo courtesy of Tim Antoniuk.

Figure 4-10. Hothouse Thong dinette set, 1997. Photo courtesy of Tim Antoniuk.

Both companies experienced success. It was difficult to find interesting products outside major cities, so "if you had something new at the time, you would just sell tons" (T. Antoniuk, personal communication, October 13, 2011). Hothouse and Pure Design exploited popular new product categories. Lilge explained that, for both companies, the "bread and butter products in the first five years were CD racks. . . . CD racks were a niche that we really needed. We exploited it and it was very profitable."

In the late 1990s, Hothouse and Pure Design expanded throughout Canada and the United States. Pure Design continued to make their products in house, but Hothouse began to send production to eastern Canada and Saskatchewan and experiment with offshore manufacturing. Hothouse established two retail stores in Edmonton and one in Calgary, and sold to customers across Alberta. Antoniuk noted:

"We sold in way more places in Alberta than a company from Toronto could have sold in Edmonton." However, the majority of their sales were international, with 60% of sales to the United States. Pure Design did not have retail stores. Eighty percent of their sales were to the United States (G. Lilge, personal communication, October 20, 2011).

Both companies ceased operations in the early to mid-2000s because of a "perfect storm of different economic conditions" (G. Lilge, personal communication, October 20, 2011). These included an increasingly sophisticated and competitive market, decreased exports to the United States after September 11, 2001, and a stronger Canadian dollar.[15] Hothouse closed in 2003 and Pure Design in 2004.

4.5.6 Current practices. Alberta's industrial design industry is developing slowly. Gadbois explained that the growth of industrial design practice in Alberta "is not exponential at all. . . . There are no more designers here then there were in 1990. . . . I have the impression that industrial design in Alberta will always be marginal." Geoffrey Lilge said he believed there are fewer industrial design firms in Edmonton today than in the 1990s.

With the exception of electronics and medical design, Alberta's economic diversification strategy was not successful in the long term and did not fully encourage the growth of local manufacturing industries. Industrial designers in Alberta continue to work in similar fields and similar distinctions exist between

[15] For many years, the Canadian dollar was low compared to the American dollar. This meant that Hothouse and Pure Design made approximately 35% more for each sale (T. Antoniuk, personal communication, October 13, 2011; G. Lilge, personal communication, October 20, 2011).

practice in Edmonton and Calgary. There are less than 50 traditional industrial design jobs in Alberta (A. Boykiw, personal communication, October 25, 2011; D. Gadbois, personal communication, October 7, 2011). These jobs exist primarily in Calgary and are based in large companies with design offices, spin-off companies from the oil and gas industries, or office furniture design companies (A. Boykiw, personal communication, October 25, 2011; J. G. Ball, personal communication, October 25, 2011). The remaining industrial designers form small design collectives, conduct studio manufacturing, or apply their skills to other fields. Examples of current industrial design practice in Alberta are described in the following section. These companies were mentioned by interviewees and provide among the only examples of industrial design work in Alberta.

SMART Technologies is a Calgary-based company founded by David Martin and Nancy Knowlton in 1987 (SMART, 2011). The company was originally a distributor for an American projector company, but in 1991 Martin and Knowlton designed one of the world's first interactive whiteboards (A. Boykiw, personal communication, October 25, 2011; SMART, 2011; Alberta Heritage, 2003d). Today, SMART Technologies has offices around the world and SMART boards are sold internationally to education facilities, public institutions, and private companies[16] (Toneguzzi, 2009).

PriMed was founded in 1995 in Edmonton (Sammer, 2010). The company designs and manufactures disposable medical products including surgical masks and

[16] See website for product images: http://smarttech.com/

gowns[17] (Sammer, 2010). In 2004, PriMed designed a line of surgical masks in collaboration with U of A researchers and Edmonton's Capital Health, now Alberta Health Services (Sammer, 2010). The company operates a manufacturing plant in China (Sammer, 2010).

Evans Consoles was established in 1980 in Calgary (Evans Consoles, 2010). The company is based in Calgary and has a local manufacturing plant, but has subsidiaries across the world (Toneguzzzi, 2011a). They design and manufacture custom 'control room' furniture and consoles for settings including data processing centers, call centers, and air traffic control desks[18] (Evans Consoles, 2010). Evans Consoles employs technical industrial designers who are mostly graduates of SAIT's Mechanical Design Technology program (J. G. Ball, personal communication, October 25, 2011).

BW Technologies was established in 1987 in Calgary (BW Technologies, 2011). They are based in Calgary but were bought by First Technology PLC and later Honeywell in 2006 (BW Technologies, 2011; Gignac, 2004). They design and manufacture gas detection instruments for industrial applications[19] (BW Technologies, 2011; Gignac, 2004). BW Technologies employs technical industrial designers who are mostly graduates of SAIT's mechanical design technology program (J. G. Ball, personal communication, October 25, 2011).

DIRTT, or Doing it Right this Time, was founded by Mogens Smed of SMED in 2004 (DIRTT, 2011; Pitts, 2009). The company is based in Calgary and has

[17] See website for product images: http://www.primed.ca/

[18] See website for product images: http://www.evansonline.com/

[19] See website for product images: http://www.gasmonitors.com/

manufacturing facilities in Calgary, British Columbia, and the USA (Toneguzzi, 2011b). They design and manufacture modular office walls[20] (Carr Mayle, 2009). The company has corporate clients in Alberta and across North America (Toneguzzi, 2011b).

Geoffrey Lilge operates a wooden cutting board design and manufacturing company.[21] Tim Antoniuk suggested that Lilge's business provides a good example of studio manufacturing in Edmonton. Lilge explained, I "designed a company that I wanted to operate. I wanted to design my own lifestyle and my own way of doing business. . . . I'm not doing trade shows and not getting a ton of publicity. But I'm selling enough so I can make a living." Lilge sells to retailers in Canada and to individual consumers in the United States through his company's website.

4.6 Challenges for Industrial Design Practice

Based on the failure of many industrial design companies in Alberta, it is evident that Alberta's industrial design industry faces significant challenges.

4.6.1 Funding. Some interviewees point to a lack of funding for industrial design in Alberta. [22] They believe government funding programs could encourage small businesses to work with industrial designers, increase employment for designers in manufacturing industries, or promote Alberta-made products, but they also believe

[20] See website for product images: http://www.dirtt.net/

[21] See website for product images: http://www.geoffreylilge.com

[22] Provincial funding programs are mostly limited to those that existed during Alberta's economic diversification in the 1970s to 1990s (see Section 4.5.1).

these policies will not be implemented (A. Boykiw, personal communication, October 25, 2011; G. Lilge, personal communication, October 20, 2011). Gadbois explained that Alberta's government is more likely to invest in the oil and gas industry.

4.6.2 Manufacturing. Alberta has few manufacturing industries appropriate for industrial design work (G. Lilge, personal communication, October 20, 2011). The industry is based on primary and fabricated metal manufacturing, machinery, transportation equipment, computer and electronics manufacturing, and electrical equipment (Alberta Competitiveness Council, 2011). Further, Alberta's manufacturing industries are rarely interested in working with industrial designers (D. Gadbois, personal communication, October 7, 2011). Industrial designers who possess strong technical skills have a better chance of finding manufacturing jobs in Alberta than those who do not. These include graduates from SAIT's mechanical design technology program. However, they commonly work as technicians or engineers rather than designers.

4.6.3 Location. Alberta's remote location makes it expensive to ship products from manufacturers in the province to large external markets (Alberta Competitiveness Council, 2011). For this reason, DIRTT established a second manufacturing plant in Georgia in the United States to be closer to eastern North American markets (Carr Mayle, 2009).

4.7 Promising Directions and Trends

Several promising directions and trends for industrial design practice in Alberta are evident in the results; these take into account Alberta's social, cultural, and economic context.

4.7.1 Consumer support. Antoniuk noted that the market for contemporary 'designer' furniture in Edmonton and Calgary is relatively small. Only a small percentage of Hothouse and Pure Design's sales were within Alberta. However, Antoniuk noted that attitudes in Edmonton have improved and "people get design way more now than they did 15 years ago." Further, Gadbois explained that Calgary "is becoming more eclectic" and "consumers are a little more perceptive."

4.7.2 New models of industrial design practice. Since there are few industrial design jobs in Alberta, industrial designers often find a new model of industrial design practice. For example, Geoffrey Lilge established his own design and manufacturing business based on his interests and what he believes is a successful model of practice in Alberta. Further, Lilge noted: "I don't know why there aren't at least a few firms that could scrape together some exhibition work . . . it's all being done but by companies in Vancouver." Industrial designers may need to be flexible in their practice and accept work in a variety of design fields (J. G. Ball, personal communication, October 25, 2011; Gadbois, 1997; G. Lilge, personal communication, October 20, 2011).

Studio manufacturing and craft-based design practices are another promising avenue (T. Antoniuk, personal communication, October 13, 2011; G. Lilge, personal communication, October 20, 2011). Antoniuk explained, "we're not designers of the next iPhone or the next Sony Wii. . . . We don't have any of the infrastructure to really support that" but "alternative creative clusters make a lot of sense for Edmonton . . . that's where the potential of Edmonton is and largely Calgary."

4.7.3 Manufacturing. As discussed in Section 4.5, Alberta's manufacturing industry is not welcoming or often appropriate for industrial designers, yet benefits exist for industrial designers to improve this situation. Alberta's manufacturing industry is strong, but suffers from a lack of skilled labour (Alberta Competitiveness Council, 2011). Thus, strengthening links between Alberta's manufacturing industry and industrial designers may help both groups.

4.7.4 Alberta Research Council. Although the provincial government does not invest in design, they support 'innovation' and research and development in the petroleum and medical fields (D. Gadbois, personal communication, October 7, 2011). Lilge noted that they "are doing so much technology work. There has got to be a lot of design hidden there somewhere." Links between the Alberta Research Council and industrial designers may benefit both groups.

4.8 Summary

In this chapter, the development of industrial design practice in Alberta from 1968 to present was discussed based on results from qualitative historical research and oral history interviews. Results were combined and ordered chronologically. They were organized into categories that included industrial design in Alberta before 1968, industrial design education, the relationship between industrial design education and practice, industrial design practice, challenges for industrial design practice, and promising directions and trends. Results from this chapter and the quantitative statistical results in Chapter 5 are combined and analyzed in Chapter 6.

5. Results of Quantitative Historical Research

This section provides an overview of Alberta's industrial design industry based on analysis of statistical data available through Statistics Canada's *Service bulletin: Specialized design services*. Data regarding revenue, expenses, profit margin, number of design establishments, clients, and sales of Alberta's industrial design industry from 1998-2009 were gathered and analyzed. In order to provide context for the statistics, industrial design was compared with other Canadian design industries: graphic design and interior design, and industrial design in Alberta was compared with industrial design industries in other provinces. Supplementary information is gathered from Government of Alberta and Government of Canada industry publications.

5.1 Revenue

Industrial design industries in each Canadian province are distinct; they have different annual revenues and patterns of revenue growth. In this section, industrial design revenue is analyzed province-by province and is compared with revenue of graphic design and interior design industries.

Since 1998, Canada's industrial design operating revenue has been distributed across Québec, Ontario, Alberta, and British Columbia. Québec and Ontario account

for approximately three-quarters of the revenue, with the remainder split between Alberta and British Columbia (Figure 5-1; Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). Industrial design operating revenue for other provinces was not reported, with several minor exceptions including Nova Scotia and Manitoba, which had industrial design revenue in 2003 and 2004 valued at an average of $400,000 and $900,000 respectively (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). However, these revenues are relatively small, suggesting that Canada's industrial design industry is centered mainly in Québec, Ontario, Alberta, and British Columbia (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002).

With respect to annual industrial design operating revenue in the years 1998–1999, 2003–2006, and 2008–2009, Ontario's average annual revenue was $90.5 million, or 44.5 % of the total for Canada; Québec's average annual revenue was $57.4 million, or 28.2% of Canada's total; Alberta's average annual revenue was $34.4 million, or 16.9% of Canada's total; and British Columbia's average annual revenue was $16.9 million, or 8.3% of Canada's total (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). For many years, Québec has been recognized as the major industrial design center in Canada (Zeman, 2001, p. 4), but in the late 2000s, Alberta's industrial design operating revenue surpassed that of Québec (Statistics Canada, 2010b, 2011a). In 2009, Ontario earned industrial design operating revenue of $100.5 million, followed by Alberta and Québec with $58.5 million and $47.8 million respectively (Statistics Canada, 2011a).

Figure 5-1. Operating revenue for industrial design in Canada, Alberta, Québec, Ontario, and British Columbia (1998-2009). Based on Statistics Canada (2010b; 2011a) and Zeman (2001; 2002).

5.1.1 Revenue growth. Alberta has a proportionally very high annual growth rate of industrial design operating revenue. On average in the years 1998–1999, 2003–2006, and 2008–2009, Alberta had an annual growth rate in industrial design operating revenue of 22.47% per year, while Québec and Ontario had an average growth rate of 0.7% per year and -1.37% per year respectively (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002).

5.1.2 Industrial design revenue compared to other design industries. On average from 1998-2009, Canada's industrial design industry earned less annual operating revenue than graphic design and interior design (Statistics Canada, 2010d, 2011; Zeman, 2001, 2002). In 2009, Canada's graphic design industry earned operating

revenue of $1.26 billion, interior design earned $975 million and industrial design followed with $237 million (see Figure 5-2; Statistics Canada, 2011a).

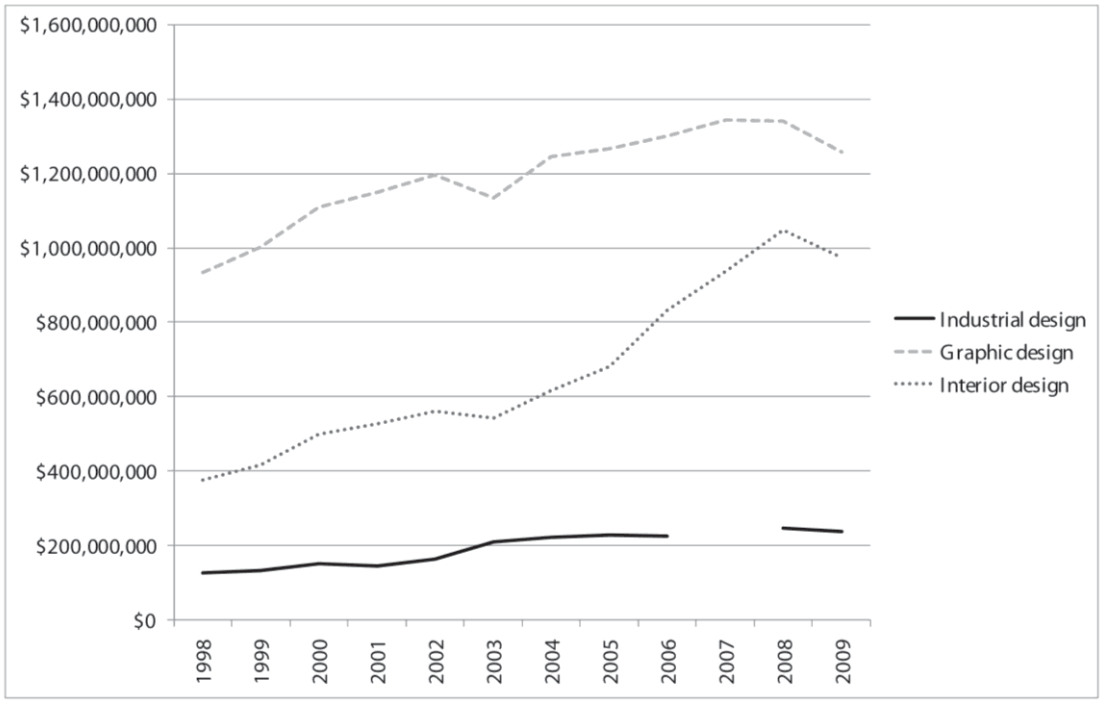

Figure 5-2. Operating revenue for industrial design, graphic design and interior design in Canada (1998-2009). Based on Statistics Canada (2010b; 2011a) and Zeman (2001; 2002).

5.1.3 Revenue in Alberta. Within Alberta, industrial design earns less annual operating revenue than do graphic design and interior design, which is typical of industrial design across Canada (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). On average in the years 1998–1999, 2003–2006, and 2008–2009, industrial design in Alberta earned $34.4 million annually, while in the years 1998–1999 and 2003–2009, graphic design earned $81.9 million and interior design earned $86.5 million annually (see Figure 5-2; Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). However, industrial design's operating revenue has grown at a higher rate

than Alberta's other design sectors. On average in the years 1998–1999, 2003–2006, and 2008–2009, industrial design operating revenue had an annual growth rate of 22.47% per year, while (in 1998–1999 and 2003–2009) graphic design and interior design's operating revenue grew at an average rate of 3.95% per year and 16.66% per year respectively (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002).

Compared to the average in Canada, industrial design operating revenue in Alberta is proportionally larger than that for graphic design and interior design (see Figures 5-2 and 5-3). Also in Alberta, interior design operating revenue is strong compared to Canadian averages, while graphic design is weak. In Alberta, on average in the years 1998–1999, 2003–2006, and 2008–2009, industrial design operating revenue was 137.97% smaller than that of graphic design and 151.49% smaller than that of interior design, and in Canada, it was 482.97% smaller than graphic design and 237.51% smaller than interior design (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). Overall, industrial design and, to an extent, interior design are specializations of Alberta's design industry.

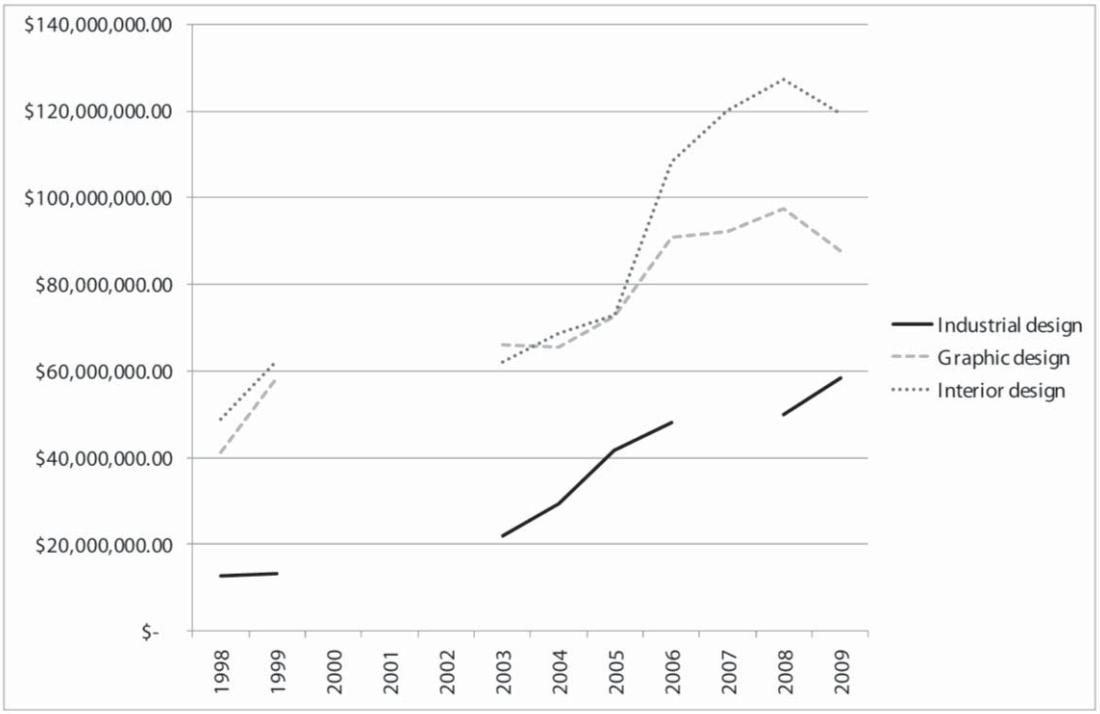

Figure 5-3. Operating revenue for industrial design, graphic design and interior design in Alberta (1998-2009). Based on Statistics Canada (2010b; 2011a) and Zeman (2001; 2002).

5.2 Profit Margin

Industrial design expenses are variable and often change disproportionately to revenue, which leads to a variable profit margin from year to year; however, compared to Québec and Ontario, Alberta's profit margin has had the strongest and most consistent increase from year to year (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). Alberta has the highest average profit margin for industrial design at 11.93%, while Québec and Ontario follow with 10.45% and 4.67% respectively (see Figure 5-4; Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). In 2008, industrial design in Alberta experienced the highest industrial design profit margin in Canada at 23.7%, while Ontario experienced Canada's lowest industrial design profit margin of -8.3% in 2009 (Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002).

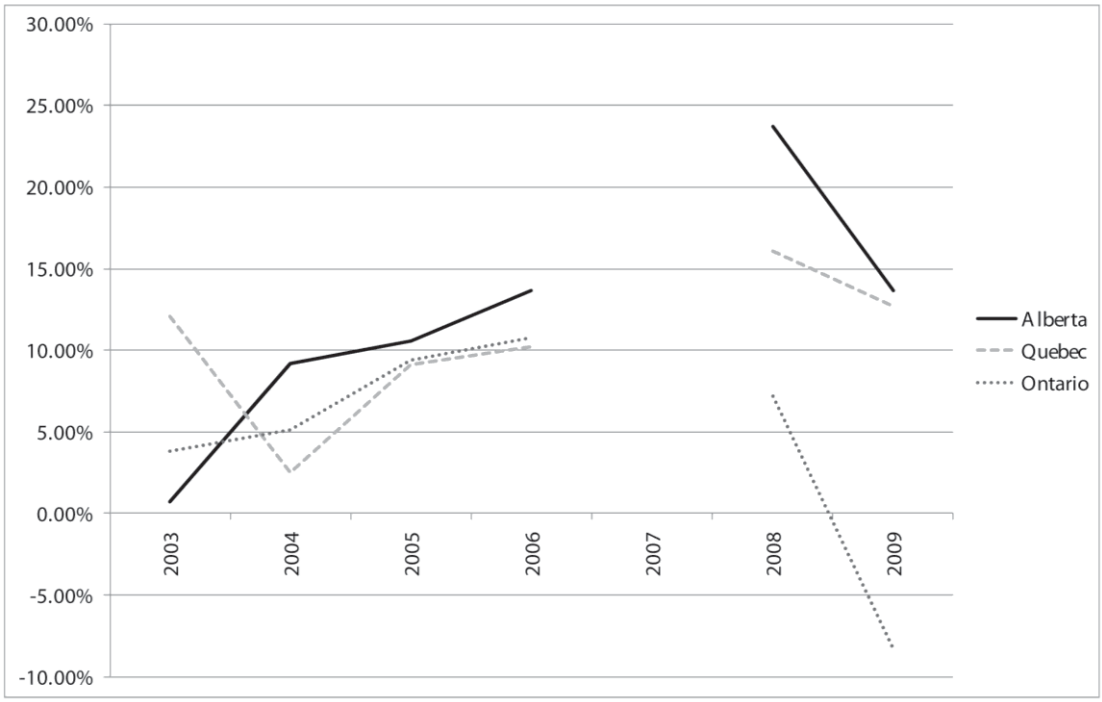

Figure 5-4. Profit margin for industrial design in Alberta, Québec and Ontario (2003-2009). Based on Statistics Canada (2010b; 2011a).

5.3 Design Establishments

The *Service Bulletins* define design establishments as one or a small group of production entities that produce a mainly homogenous set of goods or services (Statistics Canada, 2011a). The number of industrial design establishments in Alberta increased at a higher annual rate than in Québec and Ontario. On average in the years 2003–2006 and 2007–2009, industrial design establishments in Alberta grew 11.49% per year while they grew -0.2% and 2.31% per year respectively in Québec and Ontario (see Figure 5-5; Statistics Canada, 2010b, 2011a; Zeman, 2001, 2002). In addition, proportionate to population, Alberta has more industrial design establishments than Québec and Ontario (Statistics Canada, 2010a, 2010b; 2011a; Zeman, 2001, 2002). In 2009, Alberta had one design establishment per 13,063

people, while Québec and Ontario had one per 29,102 people and one per 19,886 people respectively (Statistics Canada, 2010a, 2010b; 2011a; Zeman, 2001, 2002).

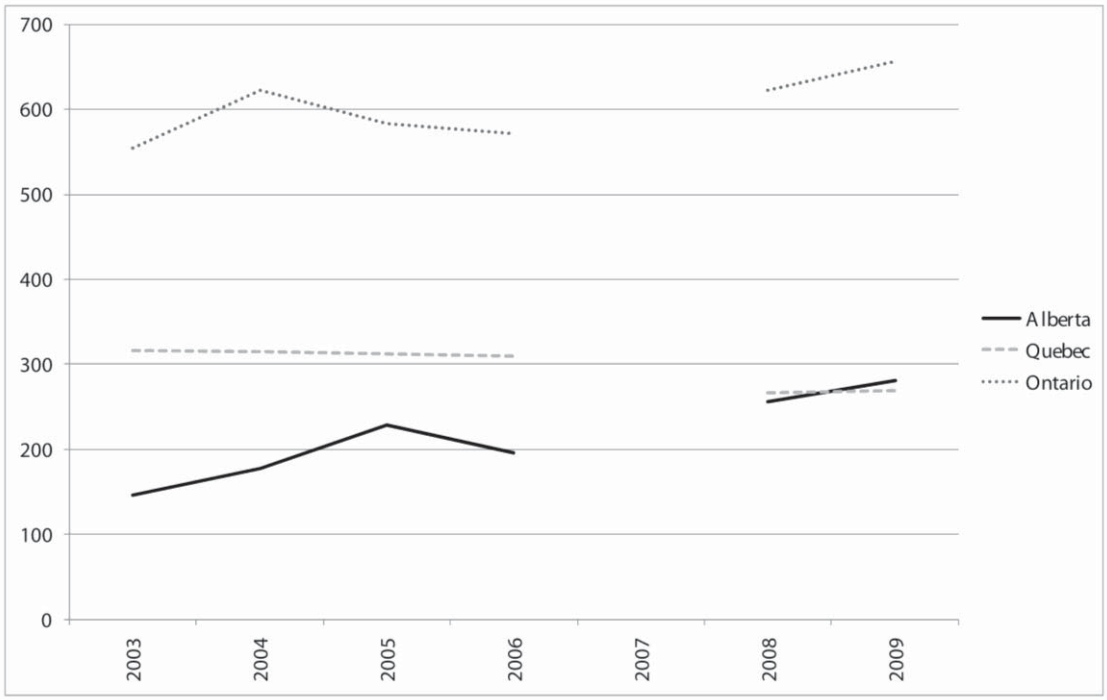

Figure 5-5. Number of industrial design establishments in Alberta, Québec and Ontario (2003-2009). Based on Statistics Canada (2010b; 2011a).

5.4 Profitability

On average in the years 1999, 2003-2006, and 2008-2009, industrial design establishments in Canada earned less profit than interior design and graphic design establishments (Statistics Canada, 2010d, 2011a). Graphic design establishments in Canada earned an average profit of $26,626 per year, interior design establishments earned $23,011 per year, and industrial design establishments earned $19,806 per year (Statistics Canada, 2010d, 2011a). The average annual profit for industrial

design establishments in Canada ranged from $51,073 per year (1999) to $6,092 per year (2009) (Statistics Canada, 2010d, 2011a).

On average in the years 2003-2006 and 2008-2009, industrial design establishments in Alberta earned more profit per year than industrial design establishments in Québec and Ontario (Statistics Canada, 2010d, 2011a). Industrial design establishments in Alberta earned an average profit of $23,998 per year, while industrial design establishments in Québec earned $20,893 per year and industrial design establishments in Ontario earned $8,399 per year (Statistics Canada, 2010d, 2011a).

5.5 Industrial Design Clients

The *Service Bulletins* outline the percentage of revenue gained from the major client groups of Canada's industrial design industry. On average in the years 1998-1999 and 2007-2009, 74.18 % of Canada industrial design revenue was from businesses/manufacturing industries, 6.78% was from individuals and households, and 4.26% was from government or government and public institutions (Statistics Canada, 2008, 2010d, 2011a; Zeman, 2001, 2002). On average from 2007-2009, 15.14% of industrial design revenue was from clients outside Canada (Statistics Canada, 2008, 2010d, 2011a).

The percentage of revenue gained from international clients has increased over time and the percentage of revenue gained from individual/household clients has decreased (see Figure 5-6; Statistics Canada, 2008, 2010d, 2011a; Zeman, 2001, 2002). Further, compared to graphic design and interior design, industrial design has

a lower percentage of revenue from government and government and public institution clients, and compared to interior design, industrial design has a higher percentage of revenue from business/manufacturing clients and a lower percentage of revenue from individual/household clients (Statistics Canada, 2008, 2010d, 2011; Zeman, 2001, 2002).

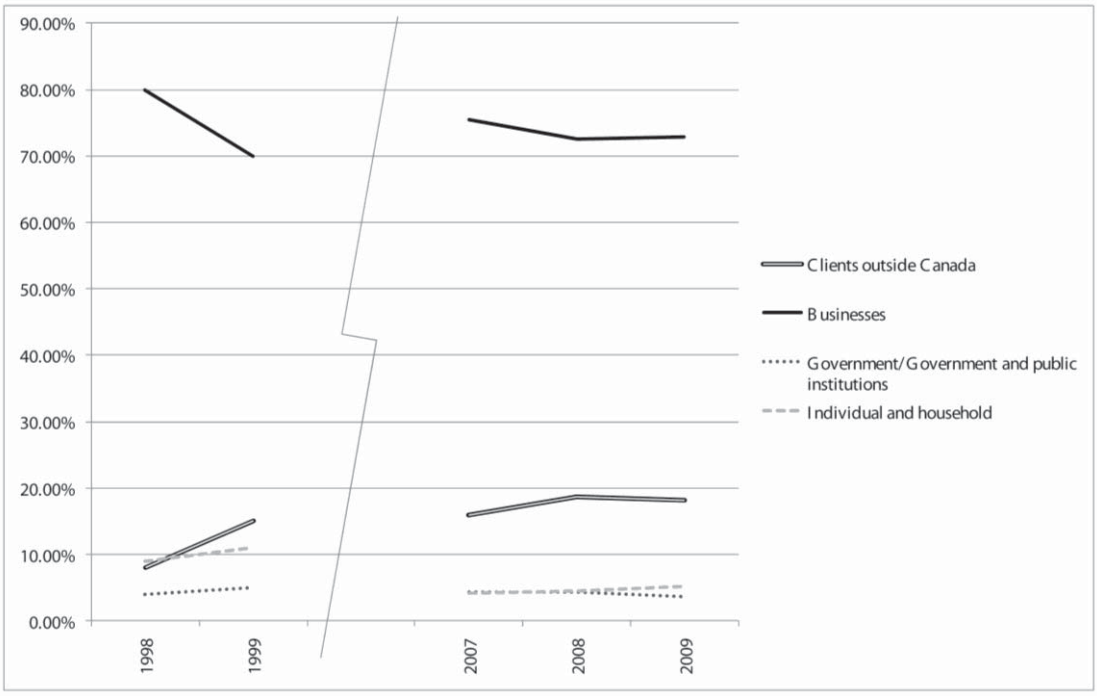

Figure 5-6. Percentage of industrial design revenue in Canada by client group (1998-1999; 2007-2009). Based on Statistics Canada (2010b; 2011a) and Zeman (2001; 2002).

Although statistics about client-types are not broken-down by province, the *Service Bulletins* distinguish the percentage of revenue gained from different types of design services province-by-province. On average from 2005-2006, industrial design in Alberta earned approximately half of its revenue from product design services, 5.95% of revenue from model design and fabrication services, and the remaining revenue

from drafting and consulting services (Statistics Canada, 2008; Statistics Canada, 2011a). These ratios are similar in Québec and Ontario, with one major difference. In Alberta, approximately 80% of product design and development services involve product testing and 20% involve product design, while in Québec and Ontario, approximately 65% product design and development services involve product design and 35% involve product testing (Statistics Canada, 2008; Industry Canada, 2010, p. 11).

5.6 Distribution of Industrial Designers in Alberta

Calgary has more industrial designers and industrial design jobs than do many other Canadian cities. In 2001, compared to other Canadian cities, Calgary had a higher than average number of industrial designers and Edmonton had a lower than average number (Gertler & Vinodrai, 2004). An Industry Canada map from 2010 indicates that Calgary has a higher concentration of product design and development than Edmonton (Industry Canada, 2010).

5.7 Summary

Based on Statistics Canada's *Service Bulletins*, it is evident that industrial design in Canada is a smaller, less profitable and more volatile industry than graphic design and interior design. Industrial design statistics are only reported in Alberta, Québec, Ontario, and British Columbia, provinces with larger overall design industries. However, within Canada, Alberta's industrial design industry is among the strongest in terms of revenue, profit margin, profitability and number of design establishments.

Industrial design in Alberta has higher annual revenue growth than Québec and Ontario, and recently surpassed Québec's annual industrial design revenue to become Canada's second highest revenue-earning industrial design industry. In addition, industrial design in Alberta has a higher profit margin than Québec and Ontario; is more profitable per design establishment per year; has the highest growth rate of industrial design establishments; has the most industrial design establishments proportionate to population; and, within Alberta, has a higher annual growth rate than other design industries.

General observations regarding industrial design clients in Canada show that the industrial design industry gains the majority of its revenue from businesses or manufacturing industries and that revenue from international clients has increased over time. However, the major distinction between provincial design industries is product design specializations. In Québec and Ontario, approximately half industrial design revenue is from product design services. In Alberta, the majority of product design and development services involve product testing, while in Québec and Ontario, the majority of product design and development services involve product design. Finally, Calgary has more industrial designers, product design work, and product development work than Edmonton.

Results from this chapter and the qualitative historical research and oral history interviews in Chapter 4 are combined and analyzed in Chapter 6.

6. Analysis and Discussion

Factors, events, and trends were identified in the development of industrial design practice in Alberta by paralleling results of contextual research, qualitative historical research, oral history interviews, and quantitative historical research. These elements are based on overlap and similarities among results. Factors are elements that influence, contribute to, or impede the development of industrial design practice in Alberta. Events correspond to turning points in the development of industrial design practice in Alberta and relate directly to each factor. Finally, trends are tendencies that are evident throughout the development of industrial design practice in Alberta.

6.1 Factors

6.1.1 Industry. Industrial design practice in Alberta follows the province's industries. Practice has related to the agricultural industry, oil and gas industry, and manufacturing industries. Changes to Alberta's industries and fluctuations in Alberta's economy impact industrial design practice. The economic diversification policy in the 1970s and 1980s stimulated the beginning of industrial design practice in Alberta. For the first time, industrial design was acknowledged and promoted in

industry, helping to establish a focus for industrial design practice on electronics design and medical product design.

The important role of industry is evident in all results. Economic and industrial changes in Alberta impact the focus and strength of Alberta's industrial design industry. This is evident through comparing contextual research about Alberta with qualitative historical research and oral history interviews about industrial design practice. Further, quantitative historical research reveals that Alberta's industrial design industry follows economic fluctuations and gains the majority of its revenue from businesses and manufacturing industries.

6.1.2 Societal changes. Alberta's creative industries were disregarded for many years. From the 1990s, Alberta's creative industries and industrial design industry started to develop a higher profile. This was partly due to population growth, increased diversity, and resulting societal changes. Fluctuations in Alberta's economy impact population and migration to the province. During booms, Alberta's population increases and its cultural and creative industries thrive.

Contextual research about Alberta indicates a relationship between population growth, diversity, societal changes, and attention towards creative industries. Further, qualitative historical research and oral history interviews note increasing attention and support for industrial design practice.

6.1.3 Academia and theory. Industrial design education influences industrial design practice in Alberta. The establishment of the industrial design program at the U of A

corresponded with the appearance of some of the first industrial design practitioners in the province. Industrial design instructors were recruited to the program and new practitioners graduated from the program each year. The same is true for the academic programs at the U of C and SAIT. In addition, the specialization and focus of each academic program influences industrial design practice in Alberta. The arts-focus at the U of A impacted the character of industrial design practice in Edmonton and the technical and research focus at the U of C impacted practice in Calgary. Finally, many industrial designers participate in both education and practice. Interviewees who worked primarily as industrial design practitioners[23] also participated in industrial design education.

Qualitative historical research and oral history interviews indicate the relationship between education and practice. Further, quantitative statistical research indicates that Alberta's industrial design industry has been growing at least since 1998. SAIT's mechanical design technology program was established in 2002/2003 (L. Turner, personal communication, February 14, 2012) and may have resulted from or contributed to this growth.

6.2 Trends

Since statistics have only been available since 1998, trends are based primarily on contextual research, qualitative historic research, and oral history interviews.

[23] John Greg Ball, Alan Boykiw, and Geoffrey Lilge

6.2.1 Technical skills. Technical skills are highly valued in industrial design practice and are a significant factor in employment of industrial designers in Alberta. The industrial design programs at U of A and U of C have been critiqued for lacking technical training, whereas SAIT's mechanical design technology program trains designers who are more employable and desirable in the province.

6.2.2 Confusion about the field of industrial design. There is little research or writing about industrial design in Alberta, which contributes to a situation where there is poor understanding of the state of industrial design practice, its strengths and weaknesses, or its areas of specialization. This impacts the ability of industrial designers to apply their skills in Alberta and find work in manufacturing industries, since their contribution and value is not well understood.

6.2.3 Vulnerability of industrial design practice in Alberta. Alberta's industrial design industry is vulnerable because of its remote location, small local market, and low profile of industrial design work. These vulnerabilities are significant when a company conducts design and manufacturing locally. Companies must ship their products to major centres in Québec and Ontario and are often dependent on exports to the United States.

6.2.4 Inconsistent policy support for industrial design in Alberta. Government support programs for industrial design were implemented as part of Alberta's economic diversification policy in the late-twentieth century. These programs were

successful in developing electronics design and medical product design as specializations in Alberta. However, they were unevenly implemented and were not long-term. The industrial design program at the U of C was established to help contribute to the manufacturing industry, but graduates were not properly integrated into the workforce.

6.2.5 Specialization of industrial design practice in Alberta. Electronics design, medical product design, and office furniture design are industries with longstanding success in Alberta. In addition, industrial design practitioners in Edmonton are finding their own model of industrial design practice, which involves studio manufacturing, contemporary craft, grass-roots design, and interdisciplinary work.

6.2.6 Difference between industrial design practice in Edmonton and Calgary. Industrial design practice in Edmonton and Calgary have different areas of specialization. Although there are more industrial design jobs in Calgary, it's Edmonton that has a stronger design community, more design associations, and more arts and culture jobs. Industrial designers in Calgary occupy traditional industrial design jobs, while in Edmonton they work in studio manufacturing, contemporary craft, grass-roots design, and related fields including exhibition design.

6.2.7 Lack of communication and exchange between industrial design practice in Edmonton and Calgary. Many industrial designers practice in one city and do not know much about industrial design practice elsewhere in the province. No students at

the U of C's graduate-level industrial design program were ever graduates of the U of A's undergraduate industrial design program (D. Gadbois, personal communication, October 7, 2011).

6.3 Discrepancies in Results

6.3.1 Inconsistency between qualitative and quantitative research. There is a discrepancy between qualitative historical research and oral history interviews and quantitative statistical research. Discrepancies exist in the distribution of the industry across Alberta and the reported strength of Alberta's industrial design industry.

Statistics show that industrial design practice is centered primarily in Calgary, while interviewees discussed industrial design practice in Edmonton and Calgary evenly. Further, statistics show that Alberta's industrial design industry is very strong, while interviewees said the opposite. According the Statistics Canada, Alberta had nearly 300 industrial design establishments in 2009 (see Figure 5-5), while interviewees said that there are less than 50 industrial design jobs in Alberta (A. Boykiw, personal communication, October 25, 2011; D. Gadbois, personal communication, October 7, 2011).

These discrepancies likely result from the way that industrial design is defined. The definitions used in this thesis, used by Statistics Canada,[24] and provided by the interviewees are outlined in Table 6-1. No definitions are available from interviewees Gallant and Lederer.

[24] Statistics Canada's *Service Bulletins* publish statistics about Canada's design industries as defined by the North American Industry Classification System (NAICS).

Table 6-1. Definitions of industrial design used in this text, used by Statistics Canada, and provided by interviewees.

Definition used in this thesis
Industrial design is a **professional and intellectual discipline of "creating and developing concepts and specifications"** (IDSA, 2010, para. 1) **that enhance "the multi-faceted qualities of objects, processes, services and their systems"** (ICSID, n.d., para. 1) within the context of **industrialization**. Special attention is directed towards **human needs, product lifecycles, and interdisciplinarity** of the discipline (see Section 1.2).
Statistics Canada
NAICS defines "Industrial Design Services" as "establishments primarily engaged in **creating and developing designs and specifications that optimize the function, value and appearance of products**" (Statistics Canada, 2007a, p. 436). The category includes automobile design, furniture design, packaging design, and design of scale models, but excludes the "designing [and] subcontracting the manufacturing and marketing of products" and "applying principles of engineering in the design" (Statistics Canada, 2007a, p. 436).
Tim Antoniuk
The definition of industrial design is broad, diverse and different for everyone. "[I]t's about at its best, **serving the public and offering products service systems, experiences, ideas that can enhance social environmental economic realities**. . . . Not just product based. Our job is becoming/has become **enhancing social-culture-environmental well-being**. Before it was about providing the bottom line with more value, more money."
John Greg Ball
"[T]he practice of **designing products that fit the human** . . . in a number of ways in terms of **social functionality** that would mean appeal to target market: does it have good form, good design, is it aesthetically pleasing, does it fit the body, is it a good ergonomic design? . . . And then the second thing with industrial design which we focus a lot on here at SAIT is the **technical functionality of products**: can it be manufactured, is it designed in a way that molds can be made from it, can it be lightweight, does it function well structurally?"
Alan Boykiw
"I consider it a **process** and to me, it's a process of . . . **harmonizing or bringing together** . . . **resolving conflicting variables** between user needs or desires, business requirements, and the technology that you can deliver." "Whether you design a house, a logo or a product, it's all the same really."
Denis Gadbois
"The **conception of products and services**. This conception takes into consideration all aspects of design. These include understanding problems, studying possibilities, brainstorming methodologies, understanding materials and manufacturing, and understanding users. The most important thing is **human factors** and that a product is **marketable and attracts attention**" (personal translation).
Cezary Gajewski
Gajewski referred to the definition of industrial design established by **IDSA** (see Section 1.2).
Jacques Giard
Based on an interpretation of Herbert Simon's definition of design. "Design is the universal activity that humans everywhere undertake to find the means to **change an existing situation into a preferred one**."

Geoffrey Lilge
"It would be the **design of manufactured objects**."
Sean Maw
"Industrial designers have **challenges in terms of defining their industry**" but "they are meant to be **bridging people and translate between artists and engineers**."

The definition of industrial design used in this thesis is consistent with the definitions provided by most interviewees. Interviewees typically provided a broad definition of industrial design that expanded beyond design of manufactured products and addressed human needs and social, cultural, or environmental considerations. In contrast, Statistics Canada used a restricted definition of industrial design based on product design. The definition addressed function, value, and appearance of products, but human factors and social, cultural, or environmental considerations were not mentioned.

Statistics Canada's definition of industrial design is not representative of contemporary industrial design practices or popular definitions of industrial design. Industrial design specializations including studio-manufacturing, contemporary craft, grass-roots design, and interdisciplinary design work may be excluded. Statistics Canada's definition may underrepresent industrial design practice in Alberta and ignore design practices often conducted in Edmonton.

This discrepancy in definitions explains the difference between the reported geographical distribution of industrial design practice in Alberta. An Industry Canada map from 2010 indicated that Calgary has a higher concentration of product design and development than Edmonton (Industry Canada, 2010), but product design and development is a narrow definition of industrial design that excludes industrial design practices often found in Edmonton.

The discrepancy in the reported strength of Alberta's industrial design industry is not explained. Qualitative research indicated that industrial design practice in Alberta is relatively weak, but quantitative research indicated the opposite. The issue may relate to collection of quantitative data used in Statistics Canada's *Service Bulletins*. It is possible that work is mistakenly defined as industrial design or that product design work is not being conducted by industrial designers. Engineers or technicians, possibly graduates of SAIT's mechanical design technology program, may be hired to conduct this work. Additional research is required to understand the sources of this data and thoroughly examine the methodologies used in Statistics Canada's *Service Bulletins*. Without further information regarding quantitative data, the outcomes of qualitative research conducted in this study are likely a more reliable and accurate estimation of the strength of Alberta's industrial design industry.

6.3.2 Interviewees' perception towards industrial design practice in Alberta. Subjectivity of interviewees meant that their optimism and perception of growth of Alberta's industrial design industry varied. Interviewees agreed that Alberta's industrial design industry is developing slowly, if at all. However, when asked what industrial design practice will be like in 10-15 years, some interviewees[25] suggested that there would be moderate growth, especially in studio manufacturing and interdisciplinary design practices. Other interviewees[26] were less optimistic; they did not see a future for industrial design practice in Alberta and argued that studio

[25] Tim Antoniuk, John Greg Ball, and Geoffrey Lilge

[26] Alan Boykiw and Denis Gadbois

manufacturing and interdisciplinary design practices are fringe practices that would have a minimal impact on the local economy.

6.4 Position of this Study in Relation to the Theoretical Framework of the Field of Design History

Design history is an important field that helps structure contemporary thought, establish traditions, and add coherence to design activities (Dilnot, 1984a; Margolin, 2009). Contemporary approaches to design history use a broad definition of design, explore the relationship between design history and practice, respect the interdisciplinarity of the field, and represent global design histories. This study fits within the theoretical framework of the field of design history. It explores the history of industrial design practice in Alberta and addresses its social, cultural, and economic contexts. Further, it uses a strong, broad, and well accepted definition of industrial design; forges a link between design history and practice; applies expertise and methodologies of other academic disciplines; and contributes to the global design historical map.

This study contributes to the field of design history. It introduces a model for design history research that uses a combination of qualitative and quantitative research and oral history interviews. Oral history interviews reveal new information not previously recorded and expand the boundaries of the design history discipline by applying a social science and humanities methodology (Ritchie, 2011). Further, the study provides valuable design history research. There is little design history research focusing on Alberta or Canada. This study explores industrial design practice in

Alberta and identifies similarities and differences between the development of industrial design practice in Alberta, Québec, and Ontario.

6.5 Development of Industrial Design Practice in Alberta in Relation to Practice in Québec and Ontario

The brief history of industrial design practice in Québec and Ontario that follows was gathered mostly from *Design in Canada since 1945: Fifty Years from Teakettles to Task Chairs* by Rachel Gotlieb and Cora Golden (2004) and qualitative statistical results outlined in Chapter 5. Gotlieb and Golden explained that industrial design practice in Canada began to emerge after WWII (2004). Canada's federal government supported industrial design as part of a post-war reconstruction policy (2004). Industrial design associations, education institutions, and studios were formed in the 1950s and 1960s (2004). The Industrial Design Information Division,[27] a federal government committee focusing on industrial design issues, was formed in 1947 (2004). The Association of Canadian Industrial Designers (ACID) was established in 1958; ADIQ, the Québec chapter of ACID, was established in 1964; and ACIDO, the Ontario division of ACID, was established in 1958 (ACID, 2006). Industrial design education programs were established beginning in the late 1960s. The first undergraduate industrial design program was founded at the Université de Montréal in 1969[28] (ACID, 2006).

[27] The Industrial Design Information Division has been renamed many times. Incarnations include the National Industrial Design Committee, National Industrial Design Council, and Design Canada.

[28] The industrial design program at the U of A was established in 1968, but was a Bachelor of Fine Arts rather than Bachelor of Industrial Design program (see Section 4.2.1).

Montreal's Expo 67 is associated with a peak in optimism and advocacy for Canadian industrial design and locally-made products (Gotlieb & Golden, 2004). However, industrial design practice soon became separated by province and each developed its own design focus and associations (2004). Québec and Ontario took over Design Canada, formerly the Industrial Design Information Division, in 1989 (2004). Québec developed local industrial design organizations and policies and Ontario created Design Exchange, a center for Canadian design (2004).

This information and quantitative historic data presented in Chapter 5 indicates that Québec and Ontario are the traditional centres for industrial design in Canada. However, these trends are beginning to reverse and statistical data indicates that Alberta is gaining an increasing share in Canada's industrial design industry.

In this section, the development of industrial design practices in Alberta, Québec, and Ontario are situated on the "Development Stages of Industrial Design in [Newly Industrialized Countries]" scale created by Alpay Er (see Tables 6-2 and 6-3; 1997). The scale measures 6 domains of industrial design and positions a region within 5 phases of development (see Table 6-2). The categories are based on those defined by Gui Bonsiepe, a design theorist, in "Developing Countries: Awareness of Design and the Peripheral Condition" (1990; Alpay Er, 1997).

Table 6-2. Development Stages of Industrial Design in Newly Industrialized Countries scale. Based on "Development Patterns of Industrial Design in the Third Word: A Conceptual Model for Newly Industrialized Countries" by H. Alpay Er (1997, p. 301).

	Development strategy (A)	**Sectorial scope of industrial design (B)**	**Industrial design at firm level (C)**	**Industrial design education and research (D)**	**Government design policy (E)**	**Design discourse (F)**
Proto design	Primary specialization in raw material growth	N/A	N/A	N/A	N/A	N/A
Embryonic phase	Import substitution I	Design-oriented low tech industries	Design as a cultural mission. Self-formed designers.	Individual courses as extension of art or architecture programs	Industrial design seen as development tool but no policy	Articles on industrial design as a cultural phenomenon appear in art journals
Emergence phase	Import substitution II	Design-oriented large scale investment driven industries	Design as a tool of initiative product modification. Individual designers employed by firms.	First generation industrial design teachers with art or architecture degrees or from foreign countries	Finance industrial design education at university level	Articles dealing with industrial design as a separate discipline appear in architecture or graphic design journals
Development phase I	Export promotion I	Investment driven standard technology industries	Design as a tool of systematic product differentiation and adaptation. In-house industrial design teams.	Second generation industrial design teachers with graduate degrees	Design groups incorporated into government agencies but no design policy	Special sections or issues on industrial design in related design journals
Development phase II	Export promotion II	Specialized export industries	Design as a marketing factor. In-house industrial design teams and design consultancy firms.	Postgraduate industrial design courses	Industrial design incorporated into some government policies	Same as above but industrial design discourse differentiated from others
Take-off phase	Global strategy	Investment driven capital and technology intensive sectors	Design is recognized as a corporate strategy. Large industrial design departments.	Specializations within industrial design education and theoretical focus	Industrial design recognized as national competitive strategy	Specialized industrial design magazines
Maturity phase	?	New product development is practiced in all major branches of industries	Design as a leading force of strategy. Product innovation.	Differentiated and fully equipped institutions. Courses contain scientific lecture programs.	Industrial design part of industrial culture	Books on industrial design are published.

Table 6-3. Development of industrial design practice in Alberta, Québec, and Ontario. Based on Alpay Er's Development Stages of Industrial Design in Newly Industrialized Countries scale (1997, p. 301).

	Development strategy (A)	**Sectorial scope of industrial design (B)**	**Industrial design at firm level (C)**	**Industrial design education and research (D)**	**Government design policy (E)**	**Design discourse (F)**
Proto design						
Embryonic phase						
Emergence phase						
Development phase I						
Development phase II	**Alberta**				**Alberta**	**Alberta**
Take-off phase		**Alberta**, Québec/ Ontario		**Alberta**, Québec/ Ontario		
Maturity phase			**Alberta**, Québec/ Ontario			Québec/ Ontario

Table 6-3 ranks industrial design industries in Alberta, Québec, and Ontario on Alpay Er's scale (1997). Québec and Ontario were situated as accurately as possible with the information available. Alberta, Québec, and Ontario ranked similarly in most categories, though Alberta ranked behind Québec and Ontario in government design policy and design discourse.

In A) development strategy, Alberta ranked in development phase II. Industrial design products are promoted and exported world-wide, but there is no strategy for their promotion. Québec and Ontario could not be situated in this category with the information available. In B) sectorial scope of industrial design, Alberta, Québec, and Ontario ranked in the take-off phase. There are investment driven and capital and technology intensive industrial design companies in each province, but new product development is not practiced in all industries. In C) industrial design at firm level, Alberta, Québec, and Ontario ranked in the maturity phase. Design and product innovation is a strategy conducted by certain firms in each

province. In D) industrial design education and research, Alberta, Québec, and Ontario ranked in the take-off phase. Industrial design education is specialized and includes theoretical content, but there are no differentiated industrial design education institutions. In E) government design policy, Alberta ranked in development phase II. Industrial design has been incorporated into government policies in the past, but there are few current government policies regarding industrial design and industrial design is not recognized as a government competitive strategy. Québec and Ontario could not be situated in this category with the information available. In F) design discourse, Alberta ranked in development phase II. There is industrial design discourse in design journals, but there are no specialized industrial design magazines. Québec and Ontario ranked in the maturity level because there are books on industrial design published in both provinces.

Additional research is required to accurately rank Québec and Ontario in each category of Alpay Er's scale; however, the scale remains helpful in situating the development of industrial design in Alberta, Québec, and Ontario. Alberta ranks similar to Québec and Ontario in most categories, but falls behind in design discourse. A global strategy for design promotion and government policy for design are required to advance Alberta's industrial design industry to the takeoff phase. Further, for industrial design in Alberta, Québec, and Ontario to develop further, new product development needs to be practiced in all branches of industry and distinct industrial design education intuitions must be established.

7. Conclusion

7.1 Outcomes

Industrial design is an emerging field in Alberta. Edmonton and Calgary, Alberta's largest cities, are home to successful industrial design studios, vibrant design communities, and strong design education institutions. Alberta's industrial design industry has been expanding and gaining increasing recognition locally and internationally since the 1980s. However, Alberta is located far from the hub of Canadian industrial design in Québec and Ontario. For many years, Alberta's industrial design industry was underdeveloped compared to Québec and Ontario. Industrial designers in Alberta were encouraged to leave the province rather than stay and support the local industry. Still today, many industrial designers leave Alberta to pursue their careers, as they believe that Alberta's industrial design industry cannot keep pace with their needs.

There is little research or documentation about industrial design in Alberta. This contributes to a situation where the industry is misunderstood. Industrial designers must make decisions regarding their practice without current, accurate, or complete information about the industry, its areas of specialization, its strengths and weaknesses, or its place in Alberta.

A foundation of information is required in order to better understand the industry, inform designers, and guide future development of the industry. In this thesis, the history and significance of industrial design practice in Alberta from 1968 to present was explored and documented. The factors, events, and trends in its development were identified. Factors are the important role of industry, societal changes, and academia and theory. Trends are the need for technical skills; confusion about the field of industrial design; vulnerability of the industry; inconsistent support for the industry; specialization of the industry; distinctions between industrial design practice in Edmonton and Calgary; and a lack of communication and connection between industrial design practice in Edmonton and Calgary. Discrepancies among results indicate a lack of a consistent definition of industrial design; a poor connection between product design and manufacturing industries and industrial design practice; and an inconsistent and often disconnected industrial design community.

Compared to industrial design practice in Québec and Ontario, practice in Alberta is less developed in relation to design discourse. However, if the industrial design industry continues to evolve and builds on its areas of strength and promise, industrial design practice in Alberta has potential to become more competitive within Canada.

The fields of electronics design, medical product design, and office furniture design have experienced longstanding success in Alberta. These industries manufacture their products locally and internationally, and serve local and international clients. Studio manufacturing and alternative models of industrial

design practice have been successful in Edmonton and are a growing specialization in the province. These design practices manufacture their products locally and work with local and international clients.

There are several areas of potential for industrial design practice in Alberta. Provincial government funding has been successful in supporting areas of industrial design practice, which have become specializations in the province. Wider and more consistent government support would have a significant impact on industrial design practice. Improved connections between industrial design practice and areas of government interest such as the Alberta Research Council would benefit both parties. In addition, stronger connections with Alberta's manufacturing industries would transform industrial design practice. Finally, a stronger and more united industrial design community would support industrial designers, permit the sharing of information, and continue to raise the profile of industrial design in Alberta.

Additional research is required in order to fully understand industrial design practice in Alberta. Research could tackle any of the factors, events, or trends of industrial design practice discussed in Chapter 6. Further, additional investigation is required to understand the quantitative statistical data, its validity, and its significance towards industrial design practice in Alberta.

My personal view, shaped by my study and experience and training as an industrial designer, is that the future of industrial design practice in Alberta is promising. The designers I met maintain strong links and a sense of community within their city and academic institutions. This leads me to believe that although it is important to strengthen national and international connections, it is equally valuable

to support regional design practices. Government or political support for design is unlikely, but there is potential in strengthening communication and organization within the design community and encouraging a better connection between design practice and education. Building professional relationships through informal and academic networking is important.

Finally, I believe that local studio manufacturing, contemporary craft, and grass-roots design practices have great potential. This became clear in my conversations with Tim Antoniuk, John Greg Ball, and Geoffrey Lilge. Design practices of this kind can help create an Alberta design identity, and contribute to a collection of work with a national or international reputation. While other design specializations such as electronics design, medical product design, and office furniture would depend on government or policy support to grow, studio manufacturing, contemporary craft, and grass-roots design can develop independently in the local design community and through collaboration with local academic institutions.

7.2 Limitations

A major limitation of this study is the lack of a consistent definition for industrial design. The definition used in this thesis is based on a combination of definitions of international industrial design associations. Interviewees provided their own definitions for the discipline, which ranged from wide understandings of the field to definitions based on product design and manufacturing. Quantitative statistical data

was based on a definition focusing on product design and manufacturing. The variety of definitions makes it difficult to accurately compare and cross examine results.

The interviewees that participated in this study and their individual subjectivity is another limitation of data. Each interviewee had a different experience of industrial design practice in Alberta and its history and development. Some interviewees were originally from Alberta and others migrated to the province as adults, which gave them a different context for understanding industrial design practice in Alberta. This issue was mediated through the number of interviews conducted and triangulation of data.

The lack of photographs of industrial design work is a limitation of this thesis. The shortage of research and documentation about industrial design practice in Alberta meant that images of industrial design products were often unavailable. Older images were available in archive collections and newer images were available online. However, few images were available from the period of 1970-1995. This problem was unavoidable, but as much information as possible was collected for each product.

My bias is a limitation of this study. History is a subjective exercise of interpretation of events (Gadamer, 1989). My position as an industrial designer trained in Edmonton likely influenced my perspective on the research subject. In some cases, I knew the interviewees personally, which likely impacted my interactions with the interviewees and their comfort level during the interview. Nevertheless, the project was addressed professionally and as objectively as possible.

Finally, this study focuses on Alberta and positions industrial design practice in Alberta in relation to Québec and Ontario. Exterior factors including globalization

dynamics, delocalization of production, the influence of electronic communication, or Alberta's position in relation to the United States or Pacific trading partners were not explored at depth. These factors are important, but were beyond the scope of this research project. Building on the foundation of information provided in this thesis, these factors can be explored in future research projects.

7.3 Contributions

This research will impact industrial design practice in Alberta. Industrial designers in Alberta currently struggle from a lack of information about the industry, its areas of specialization, and its strengths and weaknesses. This study provides information to help guide industrial design practice and further develop Alberta's industrial design industry. It may also impact industrial design educators or policy-makers, who are also addressed in this study.

This research contributes to the field of design history by introducing an alternative multichannel research method and by expanding the design historical map. It provides new information regarding design history in Canada and relationships between industrial design industries in Alberta, Québec, and Ontario.

This research is the first step towards strengthening the industrial design industry in Alberta. It provides a foundation of information and indicates promising directions for future development. Further study is required in order to better understand these directions and how to implement changes in the industry. For these reasons, I will continue to explore Canadian design and regional design industries in my PhD studies and independent research projects.

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Appendix

Figure 1. Ethical certification from the Université de Montréal.

Université de Montréal

Comité plurifacultaire d'éthique de la recherche (CPÉR)
Facultés de l'aménagement, de droit, de musique, des sciences de l'éducation et de théologie et de sciences des religions

4 avril 2011

Madame Isabel Prochner [redacted]
Candidate à la maîtrise
Design industriel
Faculté de l'aménagement

OBJET : Certificat d'éthique

Madame Prochner,

Le Comité plurifacultaire d'éthique de la recherche (CPÉR) a étudié le projet de recherche intitulé « L'histoire de la pratique du design industriel à Edmonton et à Winnipeg: Comprendre le passé pour imaginer l'avenir » et a délivré le certificat d'éthique demandé suite à la satisfaction des exigences précédemment émises. Vous trouverez ci-joint une copie numérisée de votre certificat; copie également envoyée à votre directrice de recherche et à la technicienne en gestion de dossiers étudiants (TGDE) de votre département.

Notez qu'il y apparaît une mention relative à un suivi annuel et que le certificat comporte une date de fin de validité. En effet, afin de répondre aux exigences éthiques en vigueur au Canada et à l'Université de Montréal, nous devons exercer un suivi annuel auprès des chercheurs et étudiants-chercheurs.

De manière à rendre ce processus le plus simple possible et afin d'en tirer pour tous le plus grand profit, nous avons élaboré un court questionnaire qui vous permettra à la fois de satisfaire aux exigences du suivi et de nous faire part de vos commentaires et de vos besoins en matière d'éthique en cours de recherche. Ce questionnaire de suivi devra être rempli annuellement jusqu'à la fin du projet et pourra nous être retourné par courriel. La validité de l'approbation éthique est conditionnelle à ce suivi. Sur réception du dernier rapport de suivi en fin de projet, votre dossier sera clos.

Il est entendu que cela ne modifie en rien l'obligation pour le chercheur, tel qu'indiqué sur le certificat d'éthique, de signaler au CPÉR tout incident grave dès qu'il survient ou de lui faire part de tout changement anticipé au protocole de recherche.

Nous vous prions d'agréer, Madame, l'expression de nos sentiments les meilleurs,

[redacted]

PL/gp

Pierre Lapointe
Président
Comité plurifacultaire d'éthique de la recherche
Université de Montréal

c.c. Denyse Roy
Simone Zriel (Aménagement)
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Université de Montréal

No de certificat
CPER-11-025-D

Comité plurifacultaire d'éthique de la recherche (CPÉR)
Facultés de l'aménagement, de droit, de musique, des sciences de l'éducation et de théologie et de sciences des religions

CERTIFICAT D'ÉTHIQUE

Le Comité plurifacultaire d'éthique de la recherche (CPÉR), selon les procédures en vigueur et en vertu des documents qui lui ont été fournis, a examiné le projet de recherche suivant et conclu qu'il respecte les règles d'éthique énoncées dans la Politique sur la recherche avec des êtres humains de l'Université de Montréal.

Titre du projet	**L'histoire de la pratique du design industriel à Edmonton et à Winnipeg: Comprendre le passé pour imaginer l'avenir**
Étudiant requérant	**Isabel PROCHNER** [redacted] candidate à la maîtrise, École de design industriel, Faculté de l'aménagement
Direction	Denyse Roy professeure agrégée, Design industriel, Faculté de l'aménagement, Université de Montréal
Financement	Non financé

MODALITÉS D'APPLICATION
Tout changement anticipé au protocole de recherche doit être communiqué au CPÉR qui en évaluera l'impact au chapitre de l'éthique.

Toute interruption prématurée du projet ou tout incident grave doit être immédiatement signalé au CPÉR.

Selon les règles universitaires en vigueur, un **suivi annuel** est minimalement exigé pour maintenir la validité de la présente approbation éthique, et ce, jusqu'à la fin du projet. Le questionnaire de suivi est disponible sur la page web du CPÉR.

[redacted]

Pierre Lapointe, président
Comité plurifacultaire d'éthique de la recherche
Université de Montréal

04 / 04 / 2011
Date de délivrance

01 / 04 / 2012
Date de fin de validité

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Figure 2. Tim Antoniuk interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe the development of your industrial design practice and career. Describe how you first became interested in industrial design; your design education; your employment; your involvement in Edmonton's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

-Please describe your industrial design practice and career today. Describe your employment; your involvement in Edmonton's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

-Starting from the beginning, please describe the development of industrial design practice in Edmonton. Describe how and when it began; what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-How does your industrial design practice and career fit within this history? / How does your background and experiences compare with those of other industrial designers in Edmonton?

-How does the development of industrial design practice in Edmonton compare with the development of industrial design practice elsewhere in Alberta?

-How does industrial design practice in Edmonton relate to Edmonton's industries, economic context, and social and cultural context?

-How does industrial design practice in Edmonton relate to Alberta's industries, economic context, and social and cultural context?

-Does Edmonton's industrial design community or Alberta's industrial design community have a particular identity? Why?

-What do you think industrial design practice in Edmonton and Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

Figure 3. John Greg Ball interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe the development of your industrial design practice and career. Describe how you first became interested in industrial design; your design education; your employment; your involvement in Calgary's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

-Please describe your industrial design practice and career today. Describe your employment; your involvement in Calgary's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

3) Industrial design practice in Calgary and Alberta
-Starting from the beginning, please describe the development of industrial design practice in Calgary. Describe how and when it began; what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-How does your industrial design practice and career fit within this history? / How does your background and experiences compare with those of other industrial designers in Calgary?

-How does the development of industrial design practice in Calgary compare with the development of industrial design practice elsewhere in Alberta?

-How does industrial design practice in Calgary relate to Calgary's industries, economic context, and social and cultural context?

-How does industrial design practice in Calgary relate to Alberta's industries, economic context, and social and cultural context?

-Does Calgary's industrial design community or Alberta's industrial design community have a particular identity? Why?

-What do you think industrial design practice in Calgary and Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

Figure 4. Alan Boykiw interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe the development of your industrial design practice and career. Describe how you first became interested in industrial design; your design education; your employment; your teaching positions at the University of Calgary and SAIT; your involvement in Calgary's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

-Please describe your industrial design practice and career today. Describe your employment; your involvement in Calgary's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

3) Industrial design practice in Calgary and Alberta
-Starting from the beginning, please describe the development of industrial design practice in Calgary. Describe how and when it began; what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-How does your industrial design practice and career fit within this history? / How does your background and experiences compare with those of other industrial designers in Calgary?

-How does the development of industrial design practice in Calgary compare with the development of industrial design practice elsewhere in Alberta?

-How does industrial design practice in Calgary relate to Calgary's industries, economic context, and social and cultural context?

-How does industrial design practice in Calgary relate to Alberta's industries, economic context, and social and cultural context?

-Does Calgary's industrial design community or Alberta's industrial design community have a particular identity? Why?

-What do you think industrial design practice in Calgary and Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

Figure 5. Denis Gadbois interview questions.

1) Definition of Industrial Design
- How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe the development of your professional and academic career and your role at the University of Calgary.

-Throughout your career, beyond your role at the University of Calgary, what was your involvement with Calgary's industrial design industry and community?

3) Your research about the history of industrial design in Alberta from 1900-1992
-What motivated you to study the history of industrial design in Alberta?

-What are the changes that you have noticed in Alberta's industrial design industry from 1992 to present?

-Starting from 1992, could you describe the development of industrial design practice in Alberta. Describe what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-Where geographically is Alberta's industrial design industry centered, and has this changed over time? Is there a difference between industrial design practice in different cities and regions of Alberta?

-What is the impact of the industrial design programs at the University of Calgary and the University of Alberta on the development of industrial design practice in Alberta?

-What do you think industrial design practice in Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

3) Industrial Design at the University of Calgary
-Starting from the beginning, describe the development of the University of Calgary's industrial design program. Describe when and why it began; what drove its development; its focus and approach towards industrial design as a discipline; its approach towards industrial design education; the phases and turning points in its development; models that inspired its development; and the strengths and challenges of the program.

-Starting from the beginning, describe how the industrial design program at the University of Calgary impacted or was impacted by Calgary's industrial design industry and community.

Figure 6. Cezary Gajewski interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe the development of your professional and academic career and your role at the University of Alberta.

-Throughout your career, beyond your role at the University of Alberta, what was your involvement with Edmonton's industrial design industry and community?

3) Industrial Design at the University of Alberta
-Starting from the beginning, describe the development of the University of Alberta's industrial design program. Describe when and why it began; what drove its development; its focus and approach towards industrial design as a discipline; its approach towards industrial design education; the phases and turning points in its development; models that inspired its development; and the strengths and challenges of the program.

-Starting from the beginning, describe how the industrial design program at the University of Alberta impacted or was impacted by Edmonton's industrial design industry and community.

-Starting from the beginning, describe how the industrial design program at the University of Alberta impacted or was impacted by Alberta's industries, economic context, and social and cultural context.

-What was the program's place and reception within the University of Alberta, and how did this change over time?

-How many students graduated each year? Did this change over time?

-What were the backgrounds and demographics (e.g. male to female ratio) of students in the program, and did this change over time?

-What were the career prospects in Edmonton, Alberta or abroad for graduates of the program and how did this change over time?

-Starting from the beginning, please describe the relationship between the industrial design program at the University of Alberta and the industrial design programs at the University of Calgary, SAIT and Mount Royal University. What were the similarities and differences between the programs?

-What are future directions for the University of Alberta's industrial design program? What will it be like in 10 or 15 years? Please describe its focus and promising directions for its development.

Figure 7. Rob Gallant interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Electronics Design and Manufacturing
-Starting from the beginning, please describe the development of the field of electronics design and manufacturing in Calgary. Describe how and when it began; what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-How does the development of electronics design and manufacturing in Calgary compare with its development elsewhere in Alberta?

-What do you think electronics design and manufacturing in Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

Figure 8. Jacques Giard interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe your professional and academic role at the University of Alberta, and your involvement with the University of Alberta since leaving.

-Starting from the beginning, beyond your role in the Department of Art and Design at the University of Alberta, what was your involvement with Edmonton's industrial design industry and community?

3) Industrial Design at the University of Alberta
-Starting from the beginning, please describe the development of the University of Alberta's industrial design program. Describe when and why it began; what drove its development; its focus and approach towards industrial design as a discipline; its approach towards industrial design education; the phases and turning points in its development; models that inspired its development; and the strengths and challenges of the program.

-Starting from the beginning, describe how the industrial design program at the University of Alberta impacted or was impacted by Edmonton's industrial design industry and community.

-Starting from the beginning, describe how the industrial design program at the University of Alberta impacted or was impacted by Alberta's industries, economic context, and social and cultural context.

-What was the program's place and reception within the University of Alberta, and how did this change over time?

-How many students graduated each year? Did this change over time?

-What were the backgrounds and demographics (e.g. male to female ratio) of students in the program, and did this change over time?

-What were the career prospects in Edmonton, Alberta or abroad for graduates of the program and how did this change over time?

-Starting from the beginning, please describe the relationship between the industrial design program at the University of Alberta and the industrial design program at the University of Calgary. What were the similarities and differences between the programs?

Figure 9. Robert Lederer interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Medical Industrial Design
-Starting from the beginning, please describe the development of the field of medical industrial design in Edmonton. Describe how and when it began; what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-How does the development of medical industrial design in Edmonton compare with its development elsewhere in Alberta?

-How does medical industrial design at the U of A compare with the U of C, other post-secondary institutions, or private practice?

-What do you think medical industrial design in Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

Figure 10. Geoffrey Lilge interview questions.

1) Definition of Industrial Design
-How do you define industrial design?

2) Your Career and Experience
-Starting from the beginning, please describe the development of your industrial design practice and career. Describe how you first became interested in industrial design; your design education; your employment; your involvement in Edmonton's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

-Please describe your industrial design practice and career today. Describe your employment; your involvement in Edmonton's design community; and your involvement with industrial design communities elsewhere in Alberta, Canada or abroad.

-Starting from the beginning, please describe the development of industrial design practice in Edmonton. Describe how and when it began; what drove its development; trends, phases and turning points in its development; its strengths and challenges; and the resources and support available throughout its development.

-How does your industrial design practice and career fit within this history? / How does your background and experiences compare with those of other industrial designers in Edmonton?

-How does the development of industrial design practice in Edmonton compare with the development of industrial design practice elsewhere in Alberta?

-How does industrial design practice in Edmonton relate to Edmonton's industries, economic context, and social and cultural context?

-How does industrial design practice in Edmonton relate to Alberta's industries, economic context, and social and cultural context?

-Does Edmonton's industrial design community or Alberta's industrial design community have a particular identity? Why?

-What do you think industrial design practice in Edmonton and Alberta will be like in 10-15 years? Please describe its focus and promising directions for its development.

Figure 11. Sean Maw interview questions.

1) Definition of Industrial Design
-How is industrial design defined/understood within Mount Royal University and by the faculty establishing the industrial design program?

2) Industrial Design at Mount Royal University
-Starting from the beginning, please describe the development of plans to establish the industrial design program at Mount Royal University. Describe when and why discussions began; what drove their development; the focus and approach towards industrial design as a discipline; the approach towards industrial design education; phases and turning points in the program's development; models that inspired its development; and expected strengths and challenges of the program.

-Starting from the beginning, describe how plans to develop Mount Royal University's industrial design program impacted or were impacted by Calgary's industrial design industry and community.

-Starting from the beginning, describe how plans to develop Mount Royal University's industrial design program impacted or were impacted by Alberta's industries, economic context, and social and cultural context.

-What is the expected place and reception of the program at Mount Royal University?

-How many students are expected to graduate each year?

-What are the expected backgrounds and demographics (e.g. male to female ratio) of students in the program?

-What are the expected career prospects in Calgary, Alberta or abroad for graduates of the program?

-Describe the relationship between Mount Royal University's industrial design program and industrial design programs at the University of Alberta, the University of Calgary, and SAIT. What were the similarities and differences between the programs?

Figure 12. Tim Antoniuk interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

TA-Tim Antoniuk
IP-Isabel Prochner

----Incomprehensible
….Pause

IP-My first question is: how do you define industrial design?
TA-How do I define industrial design? I think it's really different for everybody. It's one fundamental idea that I've come to realize in practicing and teaching. For me, industrial design is incredibly diverse; it's about at its best, serving the public and offering product-service systems, experiences, ideas that can enhance social environmental economic realities. I think of industrial design really quite broadly. Not just product based. Our job is becoming/has become enhancing social-culture-environmental well-being. Before it was about providing the bottom line with more value, more money.
IP-Has that definition sort-of changed over time, throughout your practice?
TA-Sure. I think a little bit of it is because I'm in this cushy, comfortable ivory tower. And I don't need to deal with the day-to-day pragmatics. Paying the bills and new competitors are squeezing me out and trying to save money, markets are shrinking and changing. I mean, I'm in a comfortable position in a way because my daily income, my livelihood isn't completely dependent on it. I get to think a little more. That said, I am a deep believer and I think there is lots of research out there saying people really have to start dealing with these things otherwise they can't be competitive.
IP-I'm trying to do an oral history, so, can you describe the development of your career: when you started to become interested in industrial design, your education, your practice.
TA-Sometimes I looked back and thought wow of course I ended up here, which is not what I would have thought at the time. As a child I loved making things, I loved wood, just making stuff. I loved objects but I was never a big consumer or a big shopper of stuff, which is ironic. I think designers tend to be a bit polar in that way. They love beauty and they're not a big consumer or they love beauty and they consume a whole lot. I just loved making things and I was really into sports, so I appreciated technical things and efficiencies or whatever. Then I was a professional windsurfer for a while and I stared up a wind-surf sail company and some friends were making boards and I did that for a number of years and then went to NAIT Business Technical School. I got a degree here, which helped clarify in my business, what I should do. That was really challenging. We were designing and making basically air foils from scratch without knowing anything about air dynamics, really. Just about making, testing, a real iterative process, which is what a lot of design is about. I ended up realizing that for me to make a go of that company, I would have to

offshore production of everything, spend close to a million dollars in inventory, marketing, distribution. I was in my early 20s at that point, completely scared, didn't know what to do. I sold that company, went to university in industrial design because it was still about making and creating. Then, in my class, within a 3 year period, we formed Hothouse, which manufactured custom made furniture for people then we started selling to retailers and we started batch production. There was a split in the company and there were 2 companies later on. Then it grew into a big company with 45 employees and retail stores and manufacturing and distribution internationally and then I sort-of grew a bit frustrated and unhappy with where the direction of the company was going . . . so I sold my shares in that company and came to university to teach and that's kind of where I am today. The history.
IP-I have some questions . . . What did you study at NAIT?
TA- It was a diploma, like a 2 year diploma with a major in marketing.
IP-What years did you study ID? What year were you here?
TA-I graduated in '92 with my undergrad, then in 2003 with my masters.
IP-Excellent. Then you've been teaching at the U of A since what date?
TA-Since 2002. The day I came here as a grad student, I started to teach.
IP-Then you got a job here as soon as you finished your schooling?
TA-Basically a position opened up. It was incredibly lucky for me. The person who retired was the furniture instructor. It was serendipitous.
IP-Wow. Are still a practicing designer?
TA-Kind-of. So much of what I have done has been based in academia, making stuff to test it out. There and . . . and thought I've set up companies, I haven't gone out and actively sold it though I am going to start doing it again. It's something I said I would never not do. I think that it's important for academics, whatever field they're in . . . to maintain their practice. For a writer to write, for a designer that is teaching about making furniture to stay relevant . . . Yeah, I'm doing that again. I've just been really busy with other stuff for a long time.
IP- Can you describe a little bit more about Hothouse? I've done as much research as I can . . . talk about the specializations?
TA-There was 7 of us that graduated from industrial design, there was one fellow that we met just because Edmonton is small and it was even smaller back when were stared in '92. We formed a collective and were very idealistic about what we were going to do. It was a collective just meaning that we all had our own designs, our own little businesses, but we fell under the Hothouse name. We did custom work for people. The 8 of us would sell individually little pieces to a local retail store. It's just really, it just slowly grew over a couple years where we started to be individually in more and more stores, then there was a group of 3 people that kind-of looked at the company and where we were going and said we were splitting off and forming our own company, which was Pure design. 3 people split off. For them, there was no more individual, it was the company. All their products were most . . . were actually not . . . to get too much into it . . . were designed by external designers.
IP-Like Karim Rashid.
TA-Karim Rashid and Richard Hutten. Lots of bigger names and smaller names and actually unknown names at the time that are big now. So, with Hothouse, during that transition, we sort-of were kicked in the ass by our new competitors/old business

partners. We though we've got to do the same thing. We became an incorporated company and we designed collectively, which was really challenging. There were 5 of us that had specializations, positions in the company from finance to marketing to product design/development, head of shipping, distribution, things like that. That was really an exciting time in the early-mid 90s in North America because contemporary design and furniture and lighting was really just emerging. Europe was long-standing but there really weren't many European companies here. Even the big companies, it was really hard to find those products in Canada and in the States. You could go to big design centers and find them, but other cities, you couldn't really. We would go to these trade shows and we would develop pretty neat products for the time. And if you had something new at the time, you would just sell tons. It was a very lucky time, it was very timely. I think we had some talent and some good products but compared to today, there was way less competition. So, that was sort-of between year 2 and 4. That . . . the companies, both companies, really started to expand throughout Canada, the States. A lot of our growth was based on going to trade shows, exhibiting our products, writing orders, going to retailers, getting more efficient with our productions. That was a challenging time, a really educational time for me and my partners. We were designers. Though we were pretty good at making stuff, we realized we are not manufacturers; we went through a lot of things. We made everything in house and we realized we kind of suck at this, we aren't that good at it. Then we farmed stuff out into Toronto. Laser cutting, we'd ship stuff here because it was relatively cheap. We had lots of stuff manufactured in Saskatchewan. You know . . . it was a tough time and we started to get frustrated with that. They could randomly increase prices. Their quality at times was sketchy, we couldn't really control that. We said: let's bring some stuff back in house. We really concentrated on that. We were reducing our costs; it was better quality, better delivery. That was up to about year 4. Then, a rocky, tough time because we were expanding a lot and we needed stronger cash flow and investments, a couple people left the company and it scaled-up. And we had a massive investment in the company by 'X' external person. And we at that point, had . . . three retail stores and we were selling in every major city in North America between from about year 4 onwards. It was really, really growing. The weakness at that point wasn't about quality of the design, and it wasn't really about quality of manufacturing, and actually, I should footnote this, we at that point were doing some offshore manufacturing for big selling items or for big clients. So, we would go to China and we would quality control stuff and same stuff in Mexico. Same thing in India. We were growing a lot but we sort-of knew at the time and it's just crystal clear now, our weakness became our lack of understanding about business finance. We weren't business people, we realized the hard way. So, we were selling a lot of products, but we were really making no more money. We were working a lot harder, way more risk but we just weren't making more money individually. So, that period really extend on for quite a while. We kept growing . . . just financial challenges . . . and then the market started to get more sophisticated. There were more competitors, better design, more Europeans coming in . . . and then 9-11 happened. The dollar changed, so . . . the dollar was 65 cents to the American dollar. We would sell, let's say, an object at $100 in Canada and we would sell it at $100 in the States. We would make 35 percent for doing nothing. We had a huge

advantage in the past shipping to the States and all of a sudden the Canadian dollar compared to the USA dollar strengthened. We saw our margins evaporating because of nothing we did. Then 9-11 happened and the markets and the retailers and everything tightened up. Not only a changing dollar, changing profitability, more competitors, better design . . . and all of a sudden 9-11. People are buying less. It was not because of all that . . . but I'm sure it was contributor. I went in this period, I was like: this isn't right; I'm not happy where we are going. I knew that the company wouldn't change direction because of my personal feelings, and I didn't ask them to. I said, you know what, I'm resigning. And that's where we came to. There is stuff about products that we did over the years where we slowly transitioned from just making metal stuff to, or actually starting with custom designs from upholstery and wood and metal then we focused more in year 2-6 on metal because it was easier to do. There weren't a lot of quality control issues with it. Then we started getting more into wood and different materials a little bit and expanded our markets.

IP-Interesting. So, I know that both of the Pure Design and Hothouse shut down, I think in 2002 or 2003?

TA- I'm trying to remember, I think that Hothouse closed in . . . 2003 and I think Pure was probably in about 2004 or 5. I don't know exactly.

IP-So, it's just basically for the reasons you were listing?

TA- I don't know details about Pure. It was certainly the dollar, the ability to react to the market, the ability to shrink costs and . . . as such, the scale of the company. And it's tough. There are a lot of huge manufacturers. There is actually, a French company from Québec who was doing huge production. I haven't seen their plant but they were doing beautiful wood products like cabinets and so forth. And I think they were quite a large company. I think bigger than Hothouse or Pure. They eventually just closed the doors, you know. It's hard to go from being a manufacturer that's got all sorts of tools and supplies and overhead and a big facility to quickly shrink within a year. It's really though. It weeded out, that period has weeded out a lot of people. Now there is a new influx of people that are struggling for little bits of money with good design.

IP-I'm curious about the location of Alberta. You were saying you were doing manufacturing across the country. Was Alberta's location being central and landlocked difficult?

TA- I guess it was difficult for manufacturing at some level because we aren't . . . we weren't and still aren't a real wood manufacturing based capital. I mean, if you go to North Carolina, it's the US hub of wood manufacturing. So, if that would have been transported up here, all of a sudden, wow, we could have done wood really well. Metal, yeah, we're oil patch so there is lots of metal, but there isn't fine metal work. There is basic metal work. So, there was a lack of sensitivity to that, you know. When the oil patch is booming, nobody wants to do cheap CD racks. They want to … they can charge out way more money doing oil patch work. There are all sorts of fluctuations in the market. And who did what and where you could get things? Why did we go to Montreal, to Toronto for laser cutting? . . . it was because there were probably more competitors out there at the time who had laser cutters. We got a better price. We didn't ----

IP- You were mentioning, you were selling all across North America and I think around the world as well.
TA- I mean, we sold a little Japan and South America and Europe.
IP-What about in Alberta?
TA-Yeah. I mean we sold . . . In most cities . . . that were . . . 100,000 plus people. Certainly a couple . . . We had 2 retails stores here. We sold in Calgary. We set up a retail store in Calgary. We sold in Red Deer, Lethbridge . . . I think we . . . in Canmore. So, we certainly sold, compared to maybe a company from Toronto, we sold in way more places in Alberta than a company from Toronto could have sold in Edmonton. We sold in 4 retailers in Toronto. Montreal interestingly was always a hard egg to crack for us.
IP-There is a lot of competitors.
TA- And in an interesting way, I think that the French retailers . . . French Canadian retailers are generally quite loyal to French companies. We found a lot of resistance.
IP-Ok
TA-We sold to a couple retailers but . . . I'm not sure, you know. I thought it was really. We were never bothered by it. We thought there is a lot of great French design out there, a lot of great French companies, manufacturers. Too much competition so we went elsewhere.
IP-Ok. You don't have to answer this if you don't want to, but you were saying Hothouse got money from an external person. Would you be able to tell me who?
TA-I'd rather not.
IP-Ok
TA-Yeah . . . "X"
IP-Ok, X person.
TA- What I would say is that he was a Canadian-born person and he liked design. A dot-com guy. He saw the potential of what we were doing. Crate and Barrel at the time, I believe, as a retailer had the biggest sales per square foot in North America. So, here is a furniture company, furniture retailer that is selling more than any other company in North America. So, things like that were popping up. Well geez, Hothouse is doing retail. It could have been, if it would have been done right, who knows, we could have been Crate and Barrel.
IP- I am trying to get an understanding of the local market for contemporary furniture. Do you think it's as big as Toronto? Vancouver?
TA- No way, in Edmonton you mean? No, not at all. I think that there are a couple factors. One is just population-based. We are a third or less of what Toronto is population-wise. That's one factor, so if all of a sudden we tripled in size over night, people would sell 3 times as much, just naturally. People are migrating; I should say white-collar people migrate to places like Toronto. Not only is it just physically bigger, but there is generally speaking going to be more white-collar people that are sort-of more aware to design, of history, of contemporary design. Looking for it. There is that factor as well. It could have been that the sales potential is not just 3 times in Toronto. It could be 6 times because of the people that are there. Edmonton is certainly improved. There are far more contemporary retailers here. People get design way more now than they did 15 years ago.
IP-How do you think it compares to Calgary? Or . . . elsewhere?

TA-Pretty similar. Calgary is a little more white collar. It's a good analogy. We are pretty similar population sizes, but Calgary is a little more white collar. Edmonton is a little more blue collar. People are just looking for more contemporary things, like goods and services because of that. I don't know the stats, but probably gross income of the average Calgarian is more than the average Edmontonian. And if that weren't completely true, I would say that if you looked at the white collar people looking to buy furniture vs. blue collar people, there is going to be more people in Calgary. Not a lot more but a bit.
IP-It's just funny though because I get the sense that Edmonton is a little artsy. I don't quite know why.
TA-I sort-of think that it's almost like . . . Melbourne and Sydney. I haven't been to Sydney, but being in Melbourne. I know you were there for a long time. Speaking with a lot of people, I found that most people I spoke to who have been to both cities or have lived there, actually design people, I should say, or artsy people, preferred Melbourne because it had. . . . It was like contemporary craft. It was more about true art society. The people that liked Sydney liked the sophistication of it and the higher quality. So, to me, it's similar in a way. Calgary has that . . . it's not a perfect example . . . it has that Sydney quality where Edmonton has the Melbourne quality, more grass-roots, creativity, things like that.
IP-That makes a lot of sense. I wanted to . . . I wondered if you could describe the development of industrial design practice in Alberta from the beginning. Why do you think it got started, what do you think the trends are?
TA- Yeah, that's where, when you asked me the very first question about what I think industrial design is. It's complex. Because I don't know, I guess I think outside of myself a lot. What do other people think? Industrial design is just such a catch phrase, as design is. Is it a verb or is it a noun? It really changes. I mean, in a sense, even Edmonton to Calgary to Toronto what industrial design is. It's the evolution. I think a lot of the reason that anything . . . not anything but a lot of what exists today in quote 'industrial design' is in part due, not exclusively at all, but in part due to the school here. It's been around for 35 years. It's one of the oldest schools in Canada, design schools. I think that's a contributor. There is . . . a new crop of people every year emerging from a program that is in part based in making stuff, like physical things. That is a bit of it. And because of who we are in Edmonton . . . a bit more blue collar, a bit more oil patch. It struggled to develop a real design-centric image and a real quote 'product development' image. I mean, I am, I'm excited globally what's going on but looking at the potential that Edmonton has for creative craft production. You know, we're not designers of the next iPhone of the next Sony Wii console thing. That's not us. We could never be that. We don't have any of the infrastructure to really support that. I think that a company could exist here but to have a cluster of companies like that, it doesn't make a lot of sense, where, alternative creative clusters makes a lot of sense for Edmonton.
IP-Ok
TA- If you think of music, theatre, design, craft-based design, that there is a lot of that. And like you say, there is this sort-of interesting grass roots creativity in a way. I think that's where the potential of Edmonton is and largely Calgary.
IP-Calgary's a little different?

TA-A little but not hugely. We're more similar to Calgary than Calgary is to Toronto.
IP-But also the U of C has a different approach to industrial design than the U of A and if you're saying that a lot of industrial design in Edmonton is based on what's going on here at the university, would that mean that the focus of the U of C relates to what's going on in Calgary?
TA- Umm . . . Yeah. A little bit. I mean, the design program at Calgary, at the U of C was not under the umbrella, but it was partnered with the architecture section. You know … and what it was . . . you become something based on your surroundings in a way. If you look at Carleton and who they're partnered with, sitting beside, and the city that they're in and who surrounds that city. They're a much more technical school than the U of A is. There is . . . you see way more product-based things coming out of there. Emily Carr, another good example, they've really changed, I think in a really great way, over the last bunch of years. But they're in an art/craft-based school. So, are they going to become a super-technical school? They have the potential to but I don't think that they would ever become a traditional product-development school. They have the opportunity to become more innovation driven in a more contemporary/alternative way.
IP-Do you think that the focus of the U of A has stayed the same over time, or do you see it as changed?
TA-No, I think that we are going through a pretty big change right now and I think it's a really great change. It's always tough because when I came here, there was 1 professor. I know the history of the school and funding and . . . the program was almost closed down a couple times. Back in the 80s and 90s because of funding, political issues probably. I don't know the details or probably talk about it even if I did.
IP-I'll figure it out. I'll do my best!
TA-Haha! You know, and, so, how can you develop a renowned reputation when there is 1 instructor. When there is one professor, so now there are 3 full-time in industrial design. Dr. Gavin Renwick has just come from Dundee, Scotland, University of Dundee. He is a world-leader in practice-led research. He has been working for almost 2 decades with the Dené population in Northern Canada. He has been spending half his time in Dundee, half his time in the Canadian North. His work is really rooted in social innovations, traditional knowledge, and embodied knowledge. Him coming here and being a Canadian research chair applicant, it's changing a bit of who we are, the dynamic. That's just another thing in our system that is adding a patina to who we are. So, yeah . . . we've largely been a bit of a creative, social-based design innovation type school. I think we are just sort-of slowly finding our way. Our graduate program is changing and evolving a fair bit. We're understanding who we are, even as an undergraduate school. When it goes from one person to all of a sudden, tripling, quadrupling in size, with people, it just naturally changes.
IP-Ok. I understand that it used to be . . . in the fine arts department. I think it used to be a BFa degree.
TA-That's what I've got.

IP-Yeah and in the 90s, something happened and then they got a grant and they developed the streams, the engineering, social sciences, computer and stuff. Did that change the focus of the program at that point?
TA-I don't think a lot. At that point, in design, there was only 1 instructor. What it allowed us to do was to develop an infrastructure roots that allowed a massive amount of flexibility in who we could become. I think it was a real important, if not, visionary format for the school. I say that strictly because I'm getting back to the first question: what is design. Crap it's anything! Like Rob does medical design, so, you can go into streams that become more relevant for medical design, or if you're more interested in craft-based things or more social-based things, you can do that. More fine arts things, you can do that. In a lot of design schools it's like: here is your curriculum and stick to it. There is less ability to craft your program to specialize and to look at opportunities. I think it has been a great thing for the school. A lot of other very renowned schools have looked at us, at the structure I should say, and said, wow, that's really interesting. We should think about that.
IP-I think they had a conference actually. I read a paper in Design Issues or something like that, about the restructuring.
TA-Yeah . . . yeah . . .
IP- How do you think that your practice in Edmonton as a designer is similar or different from what other people are doing?
TA- I think it's really similar. I think that there are some really amazing things starting to happen in Edmonton and I honestly don't say that just because I'm here. People can sense that things are changing in Edmonton's creative economy. There are people like Ken Bautista, one example of dozens. He spearheaded Ted-X Edmonton; he created start-up Edmonton for entrepreneurs to startup companies. He has done so many things to help small, creative industries develop. He is doing some other stuff in Downtown, renting a building for enriching the creative communities. He is not only a big believer, he is really vested and he is showing the potential of not only Edmonton but of creativity. Maybe not unlike Ken, because of what I do, I do research and I look at numbers and statistics and I look at ideas from around the world. I am a deep believer and I write about the emergence of the creative economy and how powerful it is becoming. There are a lot of people in Edmonton that are just doing it. They don't care about the stats. They don't care about the whatever. And they are doing it because I believe they sense something. There is an opportunity, they are loving it, they are passionate. By virtue of being in those markets, they are just doing those things. I think that I am similar in a sense that I am doing stuff to … evolve this economy, to talk about it, to participate in it, to write about it, to encourage people and schools to think about the opportunity. To encourage governments, funding bodies, to say: wow, this is becoming the most powerful economy in the world. It's the most durable economy in the world. It has been hit less hard than any other sector in the world. There are some amazing stats.
IP-It's kind of interesting; I started out my project, exactly thinking that. You know, that there is a lot of design going on here. I'm just curious why people don't really talk about it more. No research. In a lot of stuff I was reading, people seem pretty pessimistic about it at the same time. So, you're having these 2 really conflicting perspectives.

TA- I think that . . . One thing . . . I wish I had an amazing barometer of what is going on professionally with small start-ups. Having been around here for about 8 years and having gone through the school and also speaking with professors from around the world, it's absolutely bizarre and not insulting bizarre, but complex and puzzling bizarre that there is a lack of confidence.
IP-Ok?
TA-I have found, in a younger generation of people, to develop an idea and to just do it. It's puzzled me, you know, and there are many examples of this. I teach a furniture class. Like: ok, let's crank out some ideas. People are just hesitant to just really crank out ideas. I thought, wow, they're just lacking confidence. I don't think that they're stupid or fundamentally lazy because they do stuff. There is something about this that makes them nervous. I believe that there is insecurity. From when I went through, you developed an idea and you'd go in the shop and make it. That's because making was a part of my life. Making isn't a part of younger people's lives anymore. Not as many people go into the garage and make stuff with dad or mom. The physical creation of stuff with younger people, I think it less than . . . when I was out there. There's that. I think that there is an insecurity of . . . oh geez, should I really put up all my drawings because they're crappy and I don't want to be judged. The peer . . . but in the past there was the 'ah-crap- just put it up, who gives a shit'. It was freer, less arrogant. There are all these complex social barriers to break down. There is a lot of that has gone on. That, I think has changed things and not in necessarily a good way because, myself included, we just get so much. We're serviced. Like our iPhone can do so much.
IP-Yeah
TA-Like compared to in the past, you used to have to go out and do it. Now you can just get the stuff. Students don't want to do research, they just want to go to the internet and get stuff. It's easy, it's convenient. There are these obstacles. I sound like a real old guy. There are these obstacles that have been created that are limiting peoples' confidence to just test ideas, to get out there to do something. I think that that is where, getting back to your comment, maybe what you've heard of other people. I think that is where some of the pessimism comes from. The global recession is affecting things too.
IP-Ok
TA-Yeah . . .
IP- So you think if there was a really gutsy designer in Edmonton who just went with their ideas, do you think they could be as successful?
TA-Totally! I mean, I just said something the other day to my undergrads or grads . . . It's really kind-of tragic, but . . . I'm trying to remember the quote . . . 'you'll be more successful offering a crappy idea to the right market than offering a great idea to the wrong market' . . . you know. It's similar to what I felt about even my business and it's still true today. Hothouse was . . . if you are a really crappy business person but you have exceptional products, you're dead. If you are a great business person with relatively crappy designs, you'll probably do fine.
IP-Ok
TA-And that's kind-of tragic. That to me says a lot about having business savvy because you're entering a business market that's sophisticated and competitive. It's

being tenacious and getting out there and dusting yourself off. That's one thing I'm very good at. I've been kicked down a million times and I just get up and I do it again. I don't usually take things personal. You get up and you do it again. It's just what happens, you know.
IP-Do you have any examples of people who you see really doing that here, or in Alberta as a whole?
TA- Umm . . . kind-of. Geoff Lilge. He was partner in Hothouse and he went to Pure. He was really interesting. He left Pure this amazing, big company selling millions of dollars … and then he went back into the market and, like me, he went 'holy shit- the market completely changed'. He tried a couple things and they failed and he tried a couple more things and it failed. Now he's doing something and he is doing great at it.
IP-It's cutting boards.
TA-Cutting boards, yeah. How simple. You know, how can you make a living off cutting boards? He is doing great. He is completely readjusted everything that he knew about, or not everything, a lot of what he knew, at least the business. He is still a really smart designer. I think he has gotten better, probably, but he has readjusted his business approaches.
IP-I found some really neat statistics from statistics Canada that started in 1998 until now and they're showing that Alberta is just absurdly good at industrial design. I find them very odd, so I am not…
TA-Is that percentage growth or dollar?
IP-Everything, actually, like the growth of the number of designers, the growth in profit
TA-Is this just industrial designers or just designers?
IP-Its actually industrials designers and they define it similar to what you did. They're bizarre and I'm surprised no one has looked at them yet. We actually passed Québec according to Stats Can.
TA-It would be interesting in to see how they defined it.
IP-I suspect . . . yeah . . . maybe it's just the definition, or many something to do with the industries here.
TA-Right
IP-Maybe designing parts or machinery, do you think?
TA-It could be. If you look at architectural things: design of lamps, design of lamp posts, architectural, interior, exterior things. It would be really interesting to see those stats. I know that stats can be really squewy and really deceiving. Richard Florida has written lots about the creative economy and he was grouping people into the creative communities and it was like … how did he fit that in? He has been really criticized for that but he has contributed an amazing amount to that body of writing. It would be interesting . . . to hear that about.
IP-I wrote a paper on it and I think it's going to be published.
TA-Oh, absolutely please. I'd love to see that. An interesting thing from the UN's Creative Economy report from 2000-2010 that Canada was the only country in the report, out of a lot of countries reported on, that had negative export growth of creative goods and series. It was the only country in the world. Everywhere else: US, Japan, China, Europe, England, wherever were 50/90/100 up to 350 percent growth.

It's sort of like, why isn't Canada doing something about this. There is something wrong. Through a lack of funding, I'm not going to get super political, but from reduction of funding the arts and stuff like that. It's not just about giving money to poor, starving artists, it is about generating GDP. It literally is. The government has failed. It absolutely failed and that's really tragic. Especially given, you see the global numbers of growth in the creative economy. It more than doubled in size between 2000 and 2005. We're talking globally hundreds of billions of dollars and Canada's reducing and everyone else is increasingly. It's crazy!

IP-Do you think Québec is similar to other provinces . . . Oh I mean, sorry, Alberta, not Québec. How do you think Alberta relates to other Canadian provinces?

TA-For the fine arts, it's not bad. It's not great. For design, and I believe largely across Canada, it doesn't really exist. Design has been clumped in with the fine arts and I encounter that all the time going to funding bodies. You look at who is on committees and stuff like that. They're not designers. Do you try to talk design language, which is different from art and it's different from the social sciences in a lot of cases? It's tough.

IP-Ok. Excellent. I just have some fairly quick questions left. How do you think industrial design practice in Edmonton relates to Edmonton's industries? Or economic context, or social context, or how does it relate to Edmonton as a city?

TA- Industrial design. Can you define what you mean by industrial design?

IP-Kind-of what you teach here.

TA-I . . . one really cool thing happened and this isn't a tooting the horn, it was an affirmation that we're going in the right direction. We had a grad student and frankly each year out of any graduating class, there is always a little crop of people that you're like: you're going to do brilliant. She was one of those people. Great design thinker, talented graphically, really smart in industrial design. It's not like she was not on anyone's radar. She was one of the top students. She went to New York to a workshop with Nike.

IP-Ok

TA-The guy that was running it was the create director of Air Jordan for 11 years. Big dude, not just some random guy. He was so blown away by her that he brought her to Portland to do some stuff. He said: I am incredibly impressed about the way you think about design. I think that's one of the things that we're doing really well. There's stuff we need to improve on like any person and any program, but I think we're getting better and better at teaching design thinking. Design thinking is something completely different than fine arts and it's something completely different than you learn in humanities. There is something really special about great design thinkers in the complexity and the abstractions that they are able to output ideas. That is one of the things we do as a program. We are getting better and better at teaching contemporary, sophisticated design thinking in a diverse way. We're not training specialists here. We're not a school that specializes in furniture. Do we do furniture? Of course we do, it's one of the things that almost everyone takes. We teach product design but we're not exclusively a product design school in a traditional sense. It's really being able to look at a problem and approach it differently.

IP-Ok. I think a lot of my questions have been answered while we were talking. Do you think that Edmonton's design industrial community, or Alberta's has a particular identity? For someone looking in at us that they would be able to notice.
TA- I unfortunately say no. No, not really. One of the reasons I say that is more from an international perspective and this project I did with Droog. It absolutely kicked me in the ass. I was in a visioning workshop with Renny Ramakers, people from Droog, and some phenomenally creative people like Winy Maas, one of the most famous architecture studios in the world. I was around these incredibly visionary people, like internationally renowned. I asked such a simple question: what is your view on Canadian design? They were all just silent, not really saying anything. I'm like: you must have an opinion. They were like: we don't . . . we don't really know that Canadian design is. We've never really seen it. That struck me. I pushed them a bit. Like: tell me some stuff about Canadian Design. Canada is like clean, pure, white, multicultural, environmental, which is a joke. You know that is really just marketing but it's a good thing. One thing that I've written about, which is interesting, we've got no international brand of design. People don't see us. . . . You think about Germany, France, Italy, Netherlands, American, Japanese. You've got an idea. Most people, it sounds like, don't really have a strong idea about Canada. In a way, I feel is incredibly, is a huge advantage to us in a sense. The disadvantage is that, wow, it takes a long time to build a brand. The good thing is that . . . we can do what we want and we've got his really cool brand that is clean, pure, white, environmental, craft-based, social-based. Holy crap, people are defining us by things that aren't really product-based, they're not man-made based, they're not superficial, they're not steeped in old design history. That's amazing and that's where global design is going. If you're Italy and you want to re-brand yourself, holy crap, that's hard. It's like when you know somebody as a person it's hard to develop a completely new image of a person. That's a lifetime of change. Canada, in a funny way is in a real advantage that we don't have a design brand now, nor does Alberta or Edmonton.
IP- I think some designers seem to be trying to, like White Moose. They have all the . . . moose actually on their designs. My last question is: where do you see design in Alberta in 10-15 years or design in Edmonton?
TA- Edmonton, Alberta. I am actually really excited about it. I have thought about this over the years. I think that Edmonton and Albertan design has more room to grow than, for example, design from Toronto.
IP-Ok
TA-Toronto, right or wrong, whether people agree with it or not, is kind of like the wanna' be brother of big US cities. It's kind-of, white, corporate, big city. That's a huge generalization and I don't mean to insult anybody by it. Again, what is Edmonton design, what's Alberta design? I don't have an opinion. Through people like Ken and other people just doing stuff, I think that we've got so much room to grow. I am really excited about it. I don't feel like it's superficial. What is emerging, I don't feel like it's retro, I don't feel like it's any of that. I feel like the people here are fairly digital media savvy, but they're not trying to compete with Silicon Valley or New York. They can't. They never could. Certainly you could have a company that could compete, but to have a cluster. Something that would represent Edmonton, it's not going to be that, it's going to be other areas that we spoke about.

IP-That is awesome. Do you have someone to suggest, who has experience similar to you but in Calgary. I was hunting for a few people.
TA-I actually heard he sold the company . . . Maybe give Geoff Lilge a call.
IP-Ok, sure.
TA-It's a guy. He used to own a company. I think he sold it. It was called Kitt. We used to sell to him. He has been around almost since Hothouse and Pure Design started up. He was basically a student that graduated. I'm not sure if he was in design or what he was in. He set up a little shop, retail, contemporary furniture store. Real small and grew it.
IP-Thank you

Figure 13. John Greg Ball interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

IP-Isabel Prochner
JB-John Greg Ball

…Pause
---Incomprehensible

IP-What are you teaching this morning?
JB-I teach Mechanical Design Technology here at SAIT. Here mechanical design technology means product development. The specific course I'm teaching is called product design economics.
IP-Ok. That's actually perfect. I've been wanting to find out more about the SAIT program. I guess my first question is: how do you define industrial design?
JB-That's a good question. . . . I have to really think about that. I guess industrial design to me is a . . . the practice of designing products that fit the human. Fit the human, I guess, in a number of ways in terms of social functionality that would mean appeal to target market: does it have good form, good design, is it aesthetically pleasing, does it fit the body, is it a good ergonomic design? To me those are really socially functional items. And then the second thing with industrial design, which we focus a lot on here at SAIT is the technical functionality of products: can it be manufactured, is it designed in a way that molds can be made from it, can it be lightweight, does it function well structurally? Those sorts of things.
IP-Thank you. I just wanted to see if it aligns with what I'm working with in my thesis and compare it against different design practitioners in the province.
JB-Does it align?
IP-It's perfect. I'd like to know the development of your industrial design career. Like, how did you first get interested, where did you go to school, have you worked for design studios? That kind of thing.
JB-Sure. I started out as an artist actually. I went to Red Deer College and took a 2 year art and design diploma, originally intending to become a painting instructor. That was my career goal at the time. Taking art and design education, I stated to get interested in 3D things, sculpture class in particular. In that class I started to study the furniture of the beginning of the 1900s until now.
IP-Oh, sure.
JB-And I really got interested in modern design, modern furniture. All my instructors had me … he had a plan for the red blue chair designed by Gerrit Reitveld.
IP-Oh, fantastic. You built it then?
JB-I built it. 2 of them actually. I was just absolutely interested in the whole building, design, everything. My instructor pointed me in the direction of industrial design at the U of A. I went there following Red Deer College, which was another 3 years. I took a degree in industrial design with a minor in social sciences.
IP-Ok. So what year were you at the U of A?

JB-I graduated in 2002.
IP-Ok, sure. And so . . .
JB-From there, after graduation . . . during my time at U of A, I did a lot of competitions. Student competitions and placed in a couple of them, which was really exciting. I got my name out there. One was a competition for a company called Opus Design. A friend of mine and I, he now works at Umbra actually, as a designer. He and I designed these sunglasses for a competition called Opus design in Japan and we placed in that competition, which was really exciting for us. It was an international competition. We did a lot of that during school and then after I graduated, I was 1 of 4 designers who was asked to design sculptural flag poles at the Commonwealth Stadium in Edmonton for the . . . 4 recent grads of industrial design and myself were all working on these sculptural poles to line the walkway to Commonwealth Stadium. That was very exciting. Following that, I worked for a landscape architect in Edmonton.
IP-Which one?
JB-Carlyle and Associates. They do most of the really big projects in Alberta. They did Churchill Square in Edmonton. I was a designer that designed a lot of the furniture and the light poles, street light poles and things like that for him.
IP-Ok.
JB-I learned a lot about being a technical designer. When I talked about being technical, that is where I learned it most. I found that is probably the big gap for me in education in industrial design is teaching the technical side.
IP-Is that where SAIT comes in?
JB-Yes. I really found that when I went to the real world. I had to learn the hard way. It was stressful for me. To get into industry and be a designer that's useful and without that technical side, I found it really difficult. I was already kind of technical but I wasn't technical enough. Carlyle and Associates really pushed me in that direction. So what appeals to me here at SAIT is SAIT is really about coming up with class and lesson plans that align with what industry wants.
IP-Ok
JB-We do talk about Industrial design but not as much in a broad conceptual base as much as we talk about it in a technical goal base and that really has a place in Alberta.
IP-Do you find it aligns with what industry needs here?
JB-Definitely
IP-Are students able to find jobs?
JB-Yes they are because it's so technical. It's not as glamorous as most of us imagine industrial design to be. None of our students are working for Umbra or Knoll furniture, or for Herman Miller, places like that. A lot of our students are working in oil and gas. They work for metal manufacturers or plastic manufacturers. They aren't doing really glamorous products like the iPhone. A few of them are working in the furniture industry designing control systems for large corporations like NASA. That's interesting but not aligned with what I imaged industrial design to be like. Some of tour students have worked on . . . we have one student working for an ear-tag for the cattle industry. It's an RFID tag that . . . goes through the ear just like an earring but it has RFID technology designed in it.

IP-I think it's a pretty good application of industrial design skills.
JB-Definitely.
IP-When did you move to Calgary? What led you to Calgary?
JB-I was born here. I spent . . . I don't know how many years. I guess I was in Edmonton for 6 years and I came back to Calgary in 2005, mostly just because this is home. My family is here. I did find here, as opposed to Edmonton, I love Edmonton and I love the community there. They have a fantastic design community, which I really missed when I left. There's really not that cohesive group here.
IP-Ok. That's interesting to hear.
JB-The difference here is there are a lot more design work to do. That was what really got me excited about . . . a lot more job opportunities.
IP-How does that work? You're saying Edmonton has more of a design community but Calgary has more design opportunities.
JB-Yes, definitely. When I came here, the first job I took on when I got to Calgary was I worked as a . . . my job title was industrial designer and I was working for a product design company called Advanta. They designed electronics, hand held electronics and all things like that, products specifically in for plastic injection molding. For me, that was really exciting because I was looking for anything like that.
IP-It is hard to find anything in Edmonton?
JB-Very and even here but it worked out well for me.
IP-Oh, fantastic. So, when did you start working at SAIT?
JB-I've been here since 2007, I guess.
IP-Ok. Perfect. Would you be able to describe how you see industrial design practice developing in Alberta, or Calgary and Edmonton just since you've started in the early 2000s?
JB-Sure. Well, I think . . . for a long time this profession suffered from not being known.
IP-Ok
JB-In the industry . . . I think a lot of people when they hear industrial design, they confuse it with industrial engineering in Alberta for some reason. I've found a lot of times when I've told people I'm an industrial designer, they say, 'oh that's interesting you design and plan machines and plant layouts'. 'Oh, not really, that's industrial engineer'. People just thought of that because that has been here at SAIT. They once had an industrial engineering program. It got known that way. I think industrial design has become a lot more popular and there has been a lot of press and stories and different sorts of thing about the profession and I think people really understand what it is. In my view, there have been a few pioneers in the industry, like in furniture there is Pure Design and Hothouse.
IP-Yeah
JB-In Edmonton really made an impact in terms of informing the public what industrial design is. There have been lots of designers coming out of that U of A program that have really made and impact with showing their work and getting it out there. I really see it turning around here in Alberta I think people are starting to see it. I'm seeing a lot more people who have ideas for products who are looking specifically for an industrial designer to help them out. They understand what it

takes. You can't just design a product or idea and just find a draftsperson. You really need that industrial design expertise in terms of aesthetically pleasing, fitting the target markets, ergonomic design. All those things we do are important.
IP-Could you talk a bit more about the differences between Calgary and Edmonton. You have an interesting perspective having practiced in both cities. Do you see there being a specialty in either city or an identity? You were mentioning Pure Design and Hothouse.
JB-I think there is definitely no question in Edmonton a much more … I don't want to call it softer, but it seems like a softer edged community. They have a lot of furniture designers. Because of the program up there, it has a real furniture design focus and I don't see that here in Calgary. I think it's little different. There are both types of people here. I guess I'm still kind of one of them, being trained up in Edmonton, but Calgary also had a program called environmental design.
IP-Yeah at the U of C.
JB-They had a master's program there. It seems to be a different type of industrial designer that comes from the U of C. A little bit different that the U of A profs. I haven't quite defined that yet, but it's definitely different.
IP-Do you think that Mount Royal College, I've heard is starting an industrial design program, do you know anything about that?
JB-I know they were looking at it, but I don't know if it's still on the table. Do you know anything about that?
IP-No, I don't know very much. Just . . . I've just been looking at that and thinking it's interesting there are so many programs in Alberta and I'm curious how they all fit together.
JB-ACAD as well.
IP-Ok
JB-I teach there in the winter semester. They have a couple of instructors into bringing in a 3D object . . .
IP-Ok
JB-Component to their design as well, and they're both industrial designers from Edmonton.
IP-Now that's interesting.
JB-I don't know, they might be somebody to talk to. Jesse Sherburne.
IP-Yeah, I've definitely heard his name around.
JB-If you get in contact with him; I could give you his number. He is a really interesting guy. He is really super keen about industrial design.
IP-I just have a few quick questions, how do you see industrial design practice in Alberta fitting with the social context, economic context here?
JB-Well, I think it has a reputation of not . . . being useful in Alberta, for some reason. I think it's still because people don't understand what it is. Can you clarify, what you mean by social context?
IP-I guess the 2 sides of it, how does it fit, how do people perceive industrial design. Do they have a positive perception of it, a negative one? You've already explained that . . . people don't understand.

JB-They don't understand what it is and I think in some cases, a negative perception of it. That goes back to what I said, the training in industrial design tends to be not technical.
IP-Ok
JB-I think some employers have hired people who are even less technical than I was when I started. That can be really frustrating. They are expecting someone who can design something from start to finish. Some industrial designers, it's not their fault. It's just the way they've been trained. Particularly the U of A to be very concept-driven. Which is good but there's more to . . . the concept drive needs to go through technical . . . I've seen that in Alberta. Some people have a bad taste in their mouth about the profession because it wasn't tried to, you know, technical design.
IP-How does it fit with Alberta's economy and industries and that kind of thing. How does industrial design practice fit with that?
JB-Umm, well, depending on the industry, but there are a lot of companies here in Calgary that hire them. Depending on which we're talking about. For example, Smart Design. Do you know about them?
IP-No…
JB-Did you speak with Alan Boykiw, is the one that he gave me your name.
IP-I'm meeting with him this afternoon.
JB-He is the product design manager.
IP-Oh, right the smart boards.
JB-Yeah. They have several industrial designers on staff . . . Another company is DIRTT.
IP-Ok
JB-They will hire a couple of industrial designers. They do office furniture. Office walls, things like that. Haworth, which has now moved to Michigan, they were in Calgary. I worked for them for a while. They've hired a lot of industrial design and product development type people. Evans Consoles is one that hires our students a lot. They're more on the technical side of the design, mechanical design technologist but defiantly in the product development. It really varies here in Alberta. Of course there's some spin off companies from oil and gas that a lot of industrial design people are working. BW Technologies is one that I remember. They were making hand held devices to monitor oil and gas operations.
IP-Ok
JB-That's off the top of my head what I know. Like I said, it's not like Toronto where you get an industrial designer on every corner. It's not like that at all. I hope that changes, I have faith that these things are changing and they are changing here in Calgary specifically.
IP-What do you think industrial design practice will be like here in maybe 10 years or so?
JB-Here in Alberta? I think it will be very diverse. It will be the industrial designer here in Alberta will have to be wide ranging.
IP-Ok
JB-Do everything from architecture to products to public art . . . I mean that's sort of how my practice works outside of teaching.
IP-You have you own practice as well?

JB-I do and I find it's not limited to one particular style or type, it's all over. Right now, I'm working on a 14 foot hanging art fixture in a new development in Calgary. I've done everything from that to fashion glasses to . . . hand held electronics kind of thing.
IP-Ok. Do you think that anything needs to change . . . I guess in the education, in order for that to happen?
JB- I do, I think like I said in the technical side. Industrial design needs to have more technical. That's why I'm here at SAIT. I really love that about what we do here, that we focus on the technical side of designing things.
IP-I've been talking to Lyndal Turner. He works for the program too?
JB-We teach together here. He will teach even more about the technical side. He looks at it from the engineering side. He will say pretty much the same.
IP-That's all my questions. Thank you so much for your help.
JB-My pleasure.

Figure 14. Alan Boykiw interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

AB-Alan Boykiw
IP-Isabel Prochner

….Pause
---Incomprehensible

IP-I thought it would be interesting to look at industrial design in Alberta because there hasn't been a whole lot of research on it. It's kind of mysterious.
AB-It is and rightly so . . . this is a province that is born out of the agricultural. It is the rural agriculture and natural resources and not manufacturing which is typical in Québec and Ontario.
IP-I'm just trying to get different perspectives about the strengths and weaknesses and maybe I'll have some insights . . . So, my first question is: how do you define industrial design?
AB-I consider it a process and to me, it's a process of . . . harmonizing or bringing together . . . resolving conflicting variables between user needs or desires, business requirements, and the technology that you can deliver. It's pretty high level.
IP-That's quite good, I think. Ok . . . would you be able to describe the development of your industrial design practice and career?
AB-Yeah. I thought . . . I think the best thing is just to pull my CV off . . . you can pull that off the web. That's probably easiest. I can tell you briefly . . . from school at Carleton I got to be interested in design, in a lot of graphics as well. I did that while I was in school. I didn't care about whether it was product design or graphic design. That's why, when you asked me about a definition, it's not scientific. It's a process. Whether you design a house, a logo or a product, it's all the same really. That has been my career. I started with graphic where I could get work. I started freelancing where I could get work. There was a bit of a recession back in '82 and so I started my own Alan Boykiw design. I did graphic and then moved into Nortel . . . --- You'll see that in my CV. What you do in a large company is you get projects of greater and greater complexity. The first projects you do are quite simple. Interestingly enough, my first projects were graphic nature. I guess that was attractive as an employee, somebody with graphic ability and product design ability. My first product was a box in a closet. You cut your teeth on simple things and get more practice with manufacturing and working with engineers until you can take on a full blown project.
IP-Ok. When did you arrive in Alberta?
AB-I grew up here.
IP-Ok, sure. You were in school at Carleton?
AB-I went to Carleton from Calgary. I did all my public school here. I went to Carleton to study and then stayed there and worked. That became my home. I came back to Alberta to start a design office for Nortel. Northern Telecom in Calgary then

I went back to Ottawa. The company changed and they closed the office here. Then, I bounced back and forth between industry and academia.
IP-I have looked at you CV, just quickly though . . . I will have to look at it again in detail, definitely.
AB-Yeah, you can do a timeline. See that I've bounced between academic and industry just because as a young designer, I thought I was going to change the world and realized I couldn't change the world. I got interested in teaching and being kind of . . . being a little more . . . theoretical about things.
IP-Ok, in that case, would you be able to describe the development of industrial design in Calgary. To do with Nortel, smart technologies that you're working with, Haworth furniture?
AB-Can't, I haven't lived here, so I don't know in depth. Ken Davidson from Advanta, he might be better to describe it. I could give you a few things.
IP-Yeah, just an outline. I know quite a bit about Edmonton but I only know basic things about different companies and the progression between them in Calgary.
AB-Some of the large companies, they have design offices like Nortel. They had 5 designers at one point. A couple were user interface designers, same with the other companies. It just happened to be here . . . everything was manufactured elsewhere. There are companies with mechanical designers who do some industrial design for instance. From that perspective it's not a hot bed of design. There's lots of people doing kind of . . . smaller design projects where they're trying to create a collective. They design a table and try to sell it. Similar to Edmonton. Greg Ball would be the best person to tell you. He has been involved in a couple…
IP-Oh, sure. I actually talked to him this morning.
AB-Oh, great . . . In terms of Calgary, the one thing, there are quite a few Carleton grads here. Some have moved into different. I had . . . a fellow who was an industrial designer here and he moved into business development in a software company. They were downsizing and he was kept there because of his creative design process. He attributed still having a job because of what he learned in being a designer. A lot of them are students. One of them was a product manager at Smart. So industrial designers like . . . especially at Carleton, you really learn a lot of the marketing and the business and the manufacturing side. It makes it easy to go into related fields. You don't need to be just an industrial design. In Alberta that's what people have done, because they have to make a living.
IP-Ok, So people trained in industrial design are applying their skills to other fields?
AB-Exactly. There is the design process that . . . and some other things that they've learned about, answering business needs. A couple people have moved into the business area and they understand the design sides as well. It's all about your character and what you enjoy.
IP-You mentioned Carleton grads . . . the majority of industrial design practicing in industrial design are they students from Carleton?
AB-Some U of C but the U of C was not a strong program that developed designers for . . . to really understand manufacturing. It was quite theoretical, really. Thesis project didn't really even need to design anything, figuring out manufacturing, marketing and all that good stuff. I remember one fellow; he designed a book that talked about design. It had nothing to do with design in a product.

IP-The Carleton students have more hands on experience?
AB-Totally.
IP-So, what are you doing now? You're working for Smart technologies.
AB-Yep
IP-And you're teaching at SAIT?
AB-I did. I was academic chair in the technology program: robotics, mechanical design, mechanical engineering technology. So, I was basically an administrator. I had taught before then teaching design and drawing, bringing in the design side into mechanical design. At Smart, currently, I was hired to build the user experience crew. In my group, I have industrial designers. I think 4 or 5 of them. A couple have moved to interactive design, the technology side. Hardware and software were working interdependently, all these different disciplines. I have graphic designers and usability people, software usability people. About 15 people. They came from about 4 or5 departments and I was hired to build user experience capability. We look at how people interact with their products and also building the smart brand. It's a fairly young company that hasn't had a lot of design stewardship. We're building the brand and family. I work strategically now.
IP-Ok
AB-I don't do any hand drawing. All my design work is by direction. Do a bit more of this, a little less of that.
IP-Is Smart Technology a locally owned company?
AB-It is. I don't know how it came to Calgary. It just started in Ottawa. The founders . . . you can do a history. They started in Ottawa and came here and I don't know why they came to Calgary. I don't' remember that story. The world headquarters are here. It is . . . we just went public last year, and yeah. The world . . . they actually invented interactive white boards, the entire category of products.
IP-That's amazing.
AB-Haha . . . and we're here. The whole story of Calgary actually.
IP-Yeah. So, I guess . . . with that example, what do you see as the strengths of Calgary's industrial design industry?
AB-I don't know. I guess the biggest thing is we're training industrial designers, we're building industrial design, the community is. Like Dedre tried to get . . . she built the idea of the group and tried to create a design community. It's so oil and gas, engineering and custom things . . . the community isn't really a strong one. I think that there are tons of people doing tons of design in Toronto, right. They all are . . . or Québec city there are handfuls. Here there are a handful of industrial designers doing real industrial design. The rest are doing exhibit design or graphic.
IP-Ok
AB-Whatever they can get their hands on, or teaching, or they go elsewhere.
IP-I guess there's been a few success stories, telecommunications, technology, and I think office furniture.
AB-Absolutely, that's well put. Otherwise, I mean I can't add Advanta design. He partnered with a fellow and did a lot of work for Bombardier. I think they have a Québec office. A lot of work is for clients outside of Calgary. You may be . . . with technologies now. You can be doing work with people elsewhere. I think that's true for all design offices.

IP-I've heard that a lot, that companies are selling a lot to the USA. What does Alberta's locations, is that a factor at all? That we're landlocked or is it positive that we're central?
AB-I don't think there's anything about Alberta. It would be hard having a practice because you're not going to be in Alberta you're going to be manufacturing probably in Asia. Head offices you're dealing with would be in Alberta. There aren't a lot of product design offices in Alberta. I think practicing here would be difficult. I would prefer probably to go to the States, or go out East and design.
IP-Ok. Do you have any explanations for the proliferation of industrial design schools in Alberta? Related to that comment that we have . . . the U of A, U of C, SAIT, Mount Royal.
AB-None of them really have a strong industrial design program in my opinion.
IP-Ok, that's interesting.
AB-I find U of C doesn't have an industrial design program. SAIT has a mechanical design program, which isn't industrial design. Mount Royal doesn't have an industrial design program. They're thinking of staring one and I was involved in those discussions. They have a strong interior design program but no industrial design. You know about U of A better than I do.
IP-Yeah and I actually talked to Sean Maw also this morning.
AB-Oh yeah, he was trying to start the Mount Royal program. His biggest thing was getting funding to get it started and he had to prove there would be demand for industrial design grads in Alberta.
IP-Was he able to prove that?
AB-That was their biggest hurdle.
IP-Oh, that's interesting. So, how do you think industrial design fits within the social and cultural context in Alberta? Is that a factor to success or failure of industrial design?
AB-I think it's, as to my earlier point, this is an agrarian culture out of ranching and oil. So, quite frankly it's invisible.
IP-Ok
AB-I know Lance Carlson at ACAD tried to create a 'Stirring Culture' or something, trying to bring an art and design lecture series to happen. It was ok but just not what people are thinking about in their day to day thing. Design is not central like somewhere like Rotterdam or Montreal. It's not an aesthetic place.
IP-Do you think that's changed? Or stayed the same throughout the time you've been back in Alberta?
AB-I think it's pretty much stayed the same. I don't consider there to be a vibrant design community. I think even Edmonton has more vibrant cultural design and music and . . . community. If you consider the Folk Festival and some of the art walks that happen . . . its quieter here that way.
IP-Well, actually. In terms of design practice, you see there being other differences between Calgary and Edmonton?
AB-I wouldn't know. I don't' really know what's happening in Edmonton. Greg might have talked about it.

IP-Yeah, he had a really interesting insight having practiced in both cities . . . Ok. My next question is: do you think that Calgary' industrial design community has any particular identity?
AB-No
IP-Ok
AB-It's a pretty obvious answer.
IP-What about Alberta?
AB-Ummm . . . I think people know there's design happening in Alberta but its major corporation. It's not like there is an Alberta design movement. Like if you were from somewhere else and you were asked, I was asked 'where should I go to experience design?' I'd probably start to think Vancouver, Toronto, Montreal. I wouldn't say Calgary or even Edmonton, really.
IP-Do you think that's problematic. Should we try to change that?
AB-I think things like that have to grow naturally. You can start to do a promo piece. You could do it, anything. There's smart people and entrepreneurs who could use industrial design. If anything, it's working through government agencies, funding agencies to help small businesses. I often get a call: 'can you help me with this design and I have no money'. If I'm trying to make money and feed my family, it's not too attractive to me. I know the U of C was trying to go that direction, create an entrepreneurial. These designers would help entrepreneurs. You could talk to Barry about that. Touch on it.
IP-I didn't know that. Oh. I've heard a lot, there needs to be maybe more funding for design that would help. I've also heard, at least in Edmonton, a more craft approach to design seems to be more successful in Edmonton.
AB-That's all it is, it's craft. You're not going to spur economic growth, or create industries. And maybe that . . . to me 'it is what it is'. What I don't think is Ontario's going to start in oil and gas. You work within Canada . . . our background. Like our whole economy is grounded in resources. You don't just change that. It's a big mountain to move. You could say industrial design will remain a craft based thing. Whether it's an approach or not, it is what it is. That's the reality. I really like that notion. How can you spur people to appreciate the value of design? That takes money. Where's the incentive for the government to invest like that? I know they try to do that with companies like . . . organizations. There are organizations that try to do that.
IP-Ok, well, we've spend through my questions. I only have one left. What do you think industrial design practice in Calgary or Alberta will be like in 10 or 15 years?
AB-Umm . . . without intervention pretty much the same as today. I think you could create a void. If designers wanted to rekindle the IDSA group and started to say, hey as a group, let's try to do something. Awareness or whatever. As things are it will be exactly the same. There needs to be intervention, energy, interest. Energy from the young people. For myself, I'm not in design anymore. I'm designing a group. I'm still designing but I'm also designing a design in a company that didn't fully understand the value of it. I do a lot of work building brand through design. It's the young people that may want to take it on and create something. I think intervention is definitely a boost of different types, but in the end, you've got to . . . think there needs to be a realistic approach, this is Alberta, right, not New York.

IP-Yeah, exactly. That's really interesting.
AB-Designers are funny because they always want to change things. They always want to make things better. It's kind of how we are trained and sort of it's an interesting concept that if you took a little bit of a Taoist approach you'd say 'it is what it is'. Find your place in the balance. How can you use design to . . . I was designing curriculum at SAIT. So, that's why I think it's important the notion of process. You can have an industrial design background and maybe work in some other area or whatever.
IP-Ok. Actually someone I was taking to said he thinks there are only 50 pure industrial design jobs in the province. Do you think that's a realistic estimation?
AB-I have no idea. If you consider industrial design like . . . it's working on mass production projects then I'd say it might even be less. It's hard to know. It depends on what you define industrial design as. When I started out, I had a degree in industrial design but I wasn't doing any.
IP-Ok
AB-Until you're doing something and dealing with mass production and having a mechanical designer on it. If you're making 5 of it, to me that's not industrial design, it's more to your definition of a craft based design.
IP-Ok
AB-I shouldn't say 'based'. There's a focused.
IP-Ok. Oh cool. You were talking about the IDSA and the associations in the province and I have this vague understanding that . . . is it the ACID? There used to be one in the province and then it closed and the IDSA Western Canada chapter opened up.
AB-Yes
IP-Would you be able to explain that little bit more? Sort of what happened? What the status is on the IDSA
AB -I think what happened is Dedre was really energetic and had things going and she got really busy, had a child, got an architecture practice, and got busy and didn't keep doing it. Hans Wissner I think is now the current present or something. The problem with these things are they can be social gatherings and we were trying to start an ACID chapter in Ottawa and it was kind of like: why are we doing this? What's the purpose? Typical designer talk, right.
IP-Yeah
AB-Reasons and stuff.
IP-Do you think if it had good leaders, do you think that there'd be enough industrial design or enough interest in keeping it going?
AB-There might be. It would have to be of interest. Like tours of other people's areas. I think industrial design kind of missed the boat on the software world and interaction would, kind of lost that space. I think there is a lot of value of industrial design as a profession to move into that area a little. I like interaction design as a profession, it's much more relevant. Machine and software and stuff, designing things. Some of my guys crank out a design in half a day in Solidworks. It's ridiculous it used to take weeks with hand sketches and models. You press a button almost and you get a design, right. It's all about peoples' relationships with artifacts

and things, which is interaction design to me. I think we've missed the boat on that. It all came out of the software world and HCI world and sort of took over the world.
IP-You think that's something that could be realistically be done here?
AB-It's not industrial design anymore, it's another industry. It's not about physical, it's not about virtual design.
IP-Well, I've run out of questions. Do you have anything you think I should know or anything to add?
AB-Not really.

Figure 15. Denis Gadbois interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

Upon Denis Gadbois' request, the interview was conducted in French. Grammatical errors were made during the conversation and were not corrected in the interview transcription.

DG-Denis Gadbois
IP-Isabel Prochner

---Incomprehensible
...Pause

IP-Comment est-ce que vous définissez design industriel?
DG-Design industriel c'est surtout avant tout une conception de produit et de service et cette conception l'engendre tous les aspects de design, c'est-à-dire : comprendre problèmes, étudier les possibilités, brainstorming méthodologies de travail, une compréhension de matières et de la production et les usagers ce qui vienne avec tout, les facteurs humains, un produit qui soit vendable et attire attention.
IP-Ok. C'est . . . It's very concise. Est-ce que vous pouvez décrire la développent de votre carrier professionnel?
DG-Moi, j'ai fait mon bac en design industriel à l'Université de Montréal et ensuite j'ai appliqué pour des --- Canada une bourse pour aller travailler à étranger, que j'ai obtenue. J'ai passé 2 ans à Cranbrooke Academy of Art pour faire ma maitrise. C'était une période exceptionnelle par ce que j'ai travaillé avec Michael McCoy et product sémantique. C'était un intérêt . . . design était hot dans ce période. Tout le design. Il y a beaucoup de prize. J'ai gagné un prix international pour un de mes designs. Ça s'est lancé ma carrière. J'étais par la suite travaillé pour Michel Dallaire et pour l'Eco Canada qui était un manufacturer de jouets. J'ai trouvé un emploi à Université du Québec à Chicoutimi pour 2 ans. Et c'est là que mon enseignement commence. J'ai enseigné le design dans une fac d'arts et lettres 2D et 3D. J'ai fait ça pour 2 ans. 1989 à Université de Calgary. Puis par la suite une recherche . . . j'ai commencé à faire l'histoire de design industriel. Le CD-Rom que tu as vu. J'ai intéressé beaucoup à multimédia. J'ai fait, par la suite, un intérêt digital. Donc, moi j'ai eu de l'argent pour financer des choses-là. Des subventions de $300,000 pour planifier un scanneur 3D. J'ai développé un --- Par contre, ce qui est arrivé, malheureusement, en 2008, on a fermé le programme de design industriel.
IP-Ok! I've heard rumours.
DG-Alors, qu'est-ce qui est arrivé c'est qu'on a accumulé des programmes de design d'environnent, d'urbanisme et planification dans un seul programme qui était au niveau de la thèse. Ce n'est pas notre choix. C'est plusieurs circonstances au laquelle on était forcé de se joint à graduate studies. Et on se joint tous nos cours était plus éligibles. Nous, on était indépendant puis on était forcé de nos moules et tous les cours de design industriel était plus éligibles on pouvait plus prendre le programme

quand lequel était bâti. Alors, il y a eu un peu de consultation de faire un jumelage. On a focus sur le design avec une maitrise. On peut faire design industriel, mais il n'y a plus d'instruction de base en design industriel. Les gens peuvent venir faire une thèse comme toi tu fais ici . . . pour un design . . . une thèse avec du design . . . on peut plus devenir les designers.
IP-C'est la même au doctorat?
DG-Oui, c'est la même au doctorat. Je ne sais pas si tu connais . . .
IP-Anne Marchand?
DG-Oui. Je connais bien Anne aussi. Elle a fait son doctorat ici ça c'est encore bien, mais le problème est qu'il n'y a plus personne qui supervise ici en design industriel. Moi et Barry n'avons pas un PhD.
IP-Ok
DG-Donc, on ne peut pas offrir un PhD.
IP-Donc, après que Stuart Walker a quitté?
DG-Il est encoure à Lancaster, mais il fait encore au système. Il n'a pas fait une discussion s'il reste.
IP-Est-ce que vous participez avec la communauté de design industriel à Calgary?
DG-Bon, ça, c'est encore un mauvais vécu. Historiquement, oui.
IP-Ok
DG-Maintenant, non.
IP-Ok
DG-J'ai déjà fait partie de l'association de Canadien des designers industriels en Alberta. On a déjà eu une association ici. Je ne sais pas si tu savais.
IP-Oui, mais c'est un peu difficulté de trouver des . . . meeting et des choses comme ça.
DG-Tu veux dire d'historique?
IP-Maintenant . . . ?
DG-Regarde. C'est ma boite (taking a file folder down from a shelf). ---- C'est l'association des designers en Alberta. Toutes les minutes et tout. Elle n'existe plus. Elle n'existait pas longtemps. 1981- 1984. Donc la membership ça c'est confidentiel . . . Donc, tout par rapport à l'association de designers industriels en Alberta est là. Donc, tu pourrais consulter si ça t'intéresse, mais ce n'est pas formidable. On a déjà eu une association. J'ai déjà fait partie de ça. Je pense qu'il était actif entre 1981-1984. Qu'est-ce qui est arrivé . . . nous avons formé un chapter IDSA.
IP-Yeah
DG-Ok. Dedre Tucker . . . tu veux parler à elle.
IP-Ok
DG-Dedre Tucker - elle à un business d'architecture.
IP-J'ai essayé, mais elle a dit non.
DG-Donc, mais elle était responsable. Ça marchait très bien. IDSA c'était --- le problème c'était des intéressements par la suite c'est quand on se rencontre, il n'y a pas beaucoup des memberships. Puis, ça coute $400 puis pour $400 si tu publies on peut faire ça et on s'intéresse . . . . Sinon, c'est pour . . . Donc, oui historiquement, il y avait beaucoup d'activité en Alberta. IDSA on était actif entre 2002-2006 ou 7 ou 8. Donc, en 2002-2008, 6 ans. Puis, par la suite, la communauté est tombée. C'est un

peu difficile la fait que par exemple il n'y a plus de programme design industriel ici. Le support de notre part est plus limité qu'elle était.
IP-Ok. Donc, la première association en Alberta . . . Qui était associé à ACID. . . . C'est fermé pour quelle raison?
DG-Pas assez de membres. Donc, il y a eu 22 membres, puis il avait 40 étudiants. C'était le maximum. Puis à la fin, il y avait 4 ou 5 membres.
IP-Et puis, pour . . . IDSA . . .
DG-C'est la même chose. Puis, seulement quelque dedicated.
IP-Ok
DG-Dedre était énergétique puis il se tombait en desservis . . . puis on se permettre d'avoir l'argent . . . Il faut d'argent pour organiser des comités. Des petites choses un peu politiques. Qui n'est pas nécessairement apparent. On ne peut pas permettre d'avoir l'argent, une tombe membership.
IP-So, Kind of . . . what's driving industrial design in Alberta? Is the universities maybe? Or is that . . . ?
DG-Originalement. Au niveau début c'était des professionnels et ça, c'est tombé puis par la suite, supporte était professeurs et rencontres d'IDSA Alberta, faisait toujours ici, Calgary et Edmonton.
IP-Ok
DG-C'était associé avec université.
IP-Merci beaucoup. J'ai quelques questions to do with votre CD-ROM. Qu'est que c'est votre motivation pour étudier le sujet?
DG-Parce que ça c'est jamais était fait. C'est la motivation c'est que . . . pour être honnête. Que j'ai vu les opportunités de financement. Je disais ah . . . il y a argent la . . . si j'applique . . . . C'est intéressant parce que ce n'est jamais fait. J'intéressais de découvrir ce qu'Alberta a fait en termes de design . . . la coté historique de design. C'était la motivation. $12,000 pour faire ça.
IP-Vos conclusions sont que DI en Alberta est efficace et il s'agit d'agriculture et d'industrie.
DG-Uh-huh. Oui. Parce qu'il était peu design qui avait un focus comme en Alberta en peux avoir de liberté, d'avoir un peu plus d'esthétiques. Ici c'est la relation entre la nature et l'environnement. Le propos de ce qu'il devrait être. Il y a très peu de culture design en Alberta.
IP-Ok. The electonics industry. J'ai lu beaucoup de choses que l'industrie de design industriel a commencé avec l'industrie d'électroniques. Mais c'est quoi?
DG-Je ne sais pas si tu souviens de NovAtel. NovAtel, I think it was between 1988 and 1996 we had a thriving electronics industry in Alberta. There was a lot of NovAtel was here. There was urban telecom. Nortel had a design bureau here and with several designers working with it. You want to talk to Alan Boykiw. He is the head of smart boards design. You know smart board?
IP-Yeah
DG-And he was actually the person in charge of Nortel here.
IP-Ok
DG-In the 90s. If you can have him participate, he has been involved in industrial design for many years outside and inside the province, and it was the end of design… he had Emily Carr.

IP-Ok
DG-He had the design department and the smart boards.
IP-Ok
DG-So, having said that, where was I?
IP-Electronics industry.
DG-Yes. So, NovAtel was actually employing a lot of designers and we had Nortel producing electronics and what happened was the fact that the electronic tariffs protections Canadian product similar to any locations around the world broke down. Now, you were an international market companies in Canada could have hire people working in Mexico they could actually hire people in . . . China . . . And that basically broke down completely the industry and there was a thriving here protected with tariffs and so forth. So, then they were not any more competitive. NovAtel collapsed. Nortel collapsed. And at the same time, a large portion of the electronics sector in Alberta collapsed.
IP-Ok. Why was it established in Alberta in the first place? In the late 80s.
DG-Parce que l'appui de gouvernement. Les subvensions gouvernementaux.
IP-Fédéral ou provincial?
DG-Provincial. Parce qu'on voyait le côté électronique comme une diversification du pétrole. C'était Alberta perdue sa chemise quand Novotel plongeait. Le gouvernement perdu plusieurs millions de dollars en investissements en cette compagnie-là. Ça . . . ça . . . avait un effet négatif.
IP-Depuis 1992, est-ce que vous pouvez décrire la développent de design industriel en Alberta?
DG-Oui. En fait, il faut faire un graphique. Ça, c'est en 1989 et on se déplace (draws slightly rising line in air)
IP-Ok
DG-Ce n'est pas comme en Québec. La ligne n'est pas exponentielle de tout de tout de tout. En fait, elle est très stable. Il n'y a pas plus de designers qu'en 1990.
IP-Est-ce qu'il y a le même focus?
DG-Qu'est-ce qu'a arrivé est qu'il a eu plusieurs industries comme SMED qui est devenu Haworth. Haworth has been bought by a company en Europe and they closed down the plant itself was 12 of our alumni at one point and it was spread 1 km long. It was huge plant manufacturing a lot of stuff. Um . . . and then in a manufacturing sector and that was quite active. I think it was. If you look at my graph (sharp bump in graph) and it came back like this. A peak period. And one of them in NovAtel and there is another one which is the manufacturing sector in Calgary. I think I have a better perception of what is happening here in Calgary than I am in Edmonton. Tim will have a better vision of what is going on in Edmonton than I am.
IP-J'ai vu des statistiques qui dit design industriel en Alberta (draws extreme graph in air) depuis 1999. Et . . .
DG-Je ne sais pas ce qui prenne ça. Ce n'est pas ma perception. Nos étudiants. J'en ai encore qui graduaient en design industriel ont beaucoup de la difficulté de trouver un emploi. Je ne sais pas d'où viennent ces statistiques-là. Peut-être les deux dernières années, mes étudiants, seulement 1/12 ont trouvé un emploi en design industriel trouve un emploi en Alberta. Je ne sais pas d'où viennent ces statiques.

Malheureusement eux, ils se confondre, engineering et design industriel. So, that's how.
IP-Dans les . . . There is lots of articles about industrial design in Alberta that advertise the more artistic side of it: Pure Design, Hothouse, Loyal Loot, White Moose. Des compagnies comme ça. Est-ce que vous trouvez qu'ils sont comme . . . anomalies . . . ou . . . ?
DG-Yeah. Comme tu as vu dans mon CD-Rom, il y a des compagnies qui font des designs comme les manteaux . . . Ce qui est assez frustrant c'est un peu l'attitude des gens par rapport à design industriel ici. Ce n'est pas comme Québec ou bien comprendre . . . mais ici, il y a c'est la tendance, c'est l'exception qui sont intéressé en design. Une compagnie comme qui fabrique des camions pour le pétrole n'est pas intéressé à améliorer l'intérieure. Pas de tout. On les a proposés, mais ils ne sont pas de tous intéressés à travailler avec des designers pour améliorer la cabine. On a essayé à les aider, mais ils n'ont pas été d'accord. Il n'était pas un succès. Donc, il y a beaucoup qui sont . . . c'est une vision ingénieure. Donc, c'est vraiment en Alberta c'est « engineering is king » . . .
IP-Haha
DG-Architecture has a little bit . . . or pretention . . . but si tu vas un peu par exemple, c'est une ville qui commence être un peu plus éclectique il y a plus d'intérêt architectural et forcement.
IP-À Calgary?
DG-Par rapport à ça, il y a une évolution perception et incorporation de design à quotidien plus qu'il était . . . de ce côté-là, on peut mettre une ligne un peu plus exponentielle (draws a slightly bigger sloping lign in air). Les gens . . . les consumers . . sont un peu plus perceptive. Au niveau de l'industrie . . . ça peut évoluer.
IP-Ok. Umm . . . Où est design industriel en Alberta centrée? Est-ce que vous avez une idée si c'est centré à Calgary . . . à Edmonton ou . . . ? Est-ce qu'il y a un centre?
DG-Non. Je pense que c'est égal entre les deux villes.
IP-Mais c'est dans les 2 villes? Pas Red Deer?
DG-Non, un peu à Red Deer. On parle en plan de pourcentage : 40% Calgary et 40% Edmonton, puis 20% everywhere else.
IP-J'ai vu un graphique qui dis que Calgary est la centre, mais je ne sais pas.
DG-C'est centre définitivement du côté pétrole. Hum? Il y a plus d'argent qu'Edmonton. Edmonton c'est gouvernemental. C'est un peu compare Montréal avec Québec.
Qu'est-ce que c'est l'impact des programmes universitaires?
DG-Il faut pas être exclusives à niveau universitaire. Il y a un programme design industriel à SAIT.
IP-Ok. Des programmes postsecondaires.
DG-Il y a pas plusieurs programmes appart que . . . nous on a vu beaucoup d'impact … au niveau international. C'est intéressant par exemple, nos étudiants comme Anne Marchand. Ça c'est qu'un exemple. On a eu beaucoup de personnes qui enseignent un peu partout en monde. Alors, si tu demandes quel est notre impact au niveau d'Alberta, elle est bonne, mais elle est encore meilleure à niveau international. On a des étudiants qui sont devenus professeurs. On a des gens qui travaillent à Microsoft. C'est pourcentage … notre programme se compare à façon positif à celle de

Montréal. Mais on prend le même nombre de graduates. Mais on concentre au niveau de la maitrise, 7 ou 8 par année qui gradue. Durant les … 1981-2008 on a graduait. Programme existe depuis 1981. Durant cette période-là, on a des gens qui travaillent encore. On a le director de design DIRTT. C'est un des . . . une compagnie très dynamique en design. Tu connais DIRTT?
IP-No.
DG-Il faudrait que tu connaisses.
IP-C'est locale?
DG-Oui. DIRTT : do it right this time. C'est les mêmes propréteurs que SMED, Haworh. Très, très dynamique compagnie 7 employés from U of C. On a incurred beaucoup de gens à Smart Technology, DIRTT, Haworth . . . Un impact régional.
IP-Ok
DG-À Calgary. Et on a eu un impact international en . . . plusieurs professeurs.
IP-Whats the impact of the programs . . . I know there is some kind of id program in SAIT, NAIT, Mount Royal College . . . What is the impact of the college programs and the university? Do they have a similar . . .
DG-Il y a eu un programme at undergraduate at Mount Royal collège qui n'a pas fonctionné. Il faudrait que tu poses cette question à ces gens-là. C'est nouveau. Il ne fait pas très longtemps qu'ils se remplacent.
IP-Ok. Est-ce que vous pouvez imaginer la pratique de design industriel en Alberta dans 10 ou 15 ans. Est-ce que vous avez des idées des pistes?
DG-En fait, moi je il fait déjà 20 ans que je suis ici et je ne vois pas beaucoup dans 20 ans de spectaculaire et j'ai l'impression que ça vas être toujours marginale. Il va toujours avoir une place, mais que ça va être toujours marginale.
IP-Ok. Est-ce que vous pouvez décrire le développement de programme design industriel à Université de Calgary depuis 1981? Je suis . . . I am curious why it got started in the first place.
DG-Got started in the first place . . . umm . . . développer des professionnels à travailler dans le milieu built environments. But it was natural expansion . . . of architecture . . . of product design. It was not any master's program in Alberta. So, the reason was that to develop professionals at the master's level. It was professional degree so the interestingly enough, our students . . . took 4 years to graduate at the masters level because we took them from engineering we took them from music department, and we had to turn they into designers. They had to do their thesis. It was a natural match. To. . . that dimension of the built environment.
IP-Ok. What was the relationship between the U of A and the U of C? Because they had . . .
DG-Ils n'ont jamais eu de relation. C'est intéressant que nous n'ayons jamais eu un seul étudiant.
IP-Comment est-ce que le programme à U of C a influencé ou a était influencé par la communauté ou industrie de design industriel à Calgary?
DG-Le plutôt l'inverse. C'est plutôt le programme . . . a n'est pas était une réaction avec l'industrie parce que l'industrie n'a jamais besoin design industriel. Nous avons créé nos . . . on a une meilleure connexion avec l'industrie locale. Oui, c'est vrai, mais l'industrie locale ne pas besoin de notre programme.
IP-Ok. La même question avec Alberta. Est-ce que c'est la même idée?

DG-Oui, en réalité, c'est qu'on est supposé d'augmenter la diversité en produisant des designers industriels. L'objective est de créer et augmenter la diversité manufactural dans la province. Sauf que pour les deux, qu'est qui vient premier . . . Comment peut-on classer nos designers aparte que dans les compagnies. C'est intéressant parce qu'il y a quand même des projets . . . un étudiant a travaillé avec Star Ambulance. L'intérieur . . . mais lorsque contrat est fini, perdre le job. Donc, ce n'est pas trop . . . ça, c'est un cas . . . mais en Alberta c'est nécessaire, mais on a besoin de petrolium enginneering.
IP-Yeah.
DG-Ils ne sont pas tellement intéressés de voir des personnes qui vont concevoir des meubles.
IP-I talked to someone yesterday who was telling me the history of the program in Edmonton and they were saying that when the University of Calgary's program was established about 10 years after theirs. It had more funding, they had the impression it had more funding. Maybe grants and stuff like that. More than U of A. So, I was curious if that is true or if you could comment on that?
DG-Oui, dans le sense just que nous on a plus de professeurs par étudiant. Donc, départ l'université a plus d'argent. Donc, subventions . . . non . . . argent . . . placé oui. Parce qu'à ce programme ce qui est arrivé est qu'on a développé … je ne sais pas que tu vois. . . . workshop and metal shops and CNCs invested. On a fait rougé tout le monde. C'est un peu gras à financer à base là. Quand on était établi. Il n'y a pas beaucoup d'argent appart ça.
IP-Was there ever a thought . . . because I know Engineering was strong here. Was there ever a thought of a link between the 2 programs?
DG-C'est toujours une chose qu'est intéressé. En fait, il y avait un professeur qu'est engagé d'enseigner design aux engineers. Mais il n'y a pas jamais eu d'intention. Ce qu'arrive est que nous sommes à la maitrise. Les engineers sont undergrad.
IP-Combien d'étudiants finis chaque année. Vous avez qu'il y a 6-8 chaque année. Est-ce que c'est la même que dans le début?
DG-Oui. Entre 1988-2008 on a moyenne de 8. Par année. Des fois il y en a 15 . . . des fois 2. 122 total.
IP-C'est quoi les backgrounds et démographiques des étudiants?
DG-Le majorités viennent d'Alberta quelques-uns internationaux. Je n'ai jamais eu étudiant de Québec. Il y a quelques Français, quelques Anglais, beaucoup Chinois, des Mexicains. Mais 80% de West Canadian. 10% de l'est de Canada, Ontario. Et c'est ça.
IP-Ok. I know it's a masters level, so it's different. At U of A, a lot of students come from engineering and trades. Is that at all similar here?
DG-Oui, on a eu des étudiants de musique. Des gens sont devenus responsables de Nike pour tous les produits femmes Nike. On n'a pas de la peur d'avoir des étudiants . . . avec un bon portfolio et de bonnes notes. Seulement 5% ont déjà design industriel. Les autres graduent vite, 2 ans.
IP-Oh, wow. Quels sont les carriers communs?
DG-40% académiques, 40% emploie relie au Design, 20% ---- (nothing)
IP-Est-ce que la majorité reste en Alberta?
DG-Les dernières années, c'est intéressant oui. Mais avant, ils se déplaçaient.

IP-Quels sont les pistes futures pour le programme à U of C.
DG-C'est présentement blank. Mais, on a des projets . . . . Qui fait peut-être une certaine renaissance. Il y avait 5 professeurs. Maintenant c'est juste moi et Barry. Barry est moitie architecte, moitie designer. Donc, quand je prends mon retrait ils ne me replacent pas. Mais il y a des projets . . . undergrad.
IP-The U of A will be mad.
DG-Non. Ce n'est pas une compétition.
IP-Ok. Vous savez que U of A commence un programme doctoral?
DG-C'est qui?
IP-I don't remember his name.
DG-Il faut une personne qui a déjà un doctorat. Nous autres, le problème est qu'il a beaucoup de demandes, mais il n'y a personne. Les 3 personnes qui prennent le retrait ont tous les doctorats.
IP-Ok, so . . . that's all my questions, but I am curious about the point of having industrial design program in Alberta. To offer an alternative? To offer artistic thinking?
DG-No, it's the depth of looking at the professions, in our case, the fact that they were not technically stronger. Carleton was really strong technically. Our strength was really the depth of thinking behind the products. That's why we had an impact in the educational world. Having said that, we had an impact, it was supposedly to diversify the industry in Alberta. We did but the industry didn't respond as well. They never really diversified in the way it was supposed to be. Puis, c'est un peu de dommage, il n'y a pas d'appui. Il n'y a pas plein d'industries qui disent . . . on a besoin de ça. Il y a maximum 50 places, 50 seats et ils sont tous occupés. Quand un part, il se replace. Mais pas plus que 50. Mais il y a des gens qui travaillent dans le domaine d'exhibit design.
IP-Ok. Do you see that is similar in Edmonton?
DG-Il y a plus de musées. Plus de travail comme ça. Ici, c'est plutôt…
IP-Je pense que c'est tout. Est-ce que vous avez des autres choses à dire?
DG-Je pense que la question qu'il faudrait que tu poses est de comparer l'approche gouvernementale. Les possibilités gouvernementales. Il y a absolument aucun financement pour design industriel en Alberta. Je souviens des nombreux programmes en Québec. Ici c'est zip. Puis il n'y a aucune future de n'avoir aucune cent. Il n'y a aucun espoir d'avoir une seule cent. La seule chose est le financement des institutions d'enseignement. Mais pour avoir d'argent pour stimuler design dans les compagnies, il n'arrivera jamais. C'est une approche de droite. Si on a fait la même chose que Québec . . . La grosse partie c'est l'attitude de droite en Alberta. Puis, si on a favorisé pas cette approche. On investit en pétrole, pétrole, pétrole. Il ne s'arrivera pas de mettre beaucoup d'argent. J'ai essayé de faire d'avertissement, mais il n'y a rien de plus. Oui on a quelques industries, quand même l'intéressé. Seulement 50 sièges.

Figure 16. Jacques Giard interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

JG-Jacques Giard
IP-Isabel Prochner

---Incomprehensible
…Pause

JG-Anyway, let's start with the various questions that you have and as I said in one of my e-mails, it has been so long, so I don't know to what degree I can remember, but I will tell you whatever I know.
IP-Thank you so much. I just found that I am having trouble finding out the earlier history of industrial design in Alberta, like in the 60s and 70s. There isn't much information. So, I think you would be the perfect person to shed some light . . .
JG-Oh, haha
IP-On that period
JG-The verdict is . . . --- have you spoken to Bruce Bentz?
IP-Yeah, he didn't want to participate so . . .
JG-Oh . . . He was there . . . I mean, let me just give you a very very quick history. I joined at the U of A in 1975.
IP-Ok
JG-And he was there before that and there was also a fellow by the name of Dave Bennett and Neville ---
IP-Ok
JG-Have those names come up at all?
IP-Yeah. I talked to Bruce Bentz but not the other 2
JG-Dave Bennett went back to England, which . . . I mean you have to understand that the department of art and design where industrial design . . . was started in the typical British fashion by Ron Davey and Roger Sylvester who basically brought the British model over. I did my master's degree in England, so I saw their program in light of this typical design model. Departments of schools would have fine arts, sculpture, printmaking and they would have the design component, industrial, graphic, furniture, fashion design. It was based on the formulation that in part comes from the Bauhaus. That all art and design students are cast of the same mold at least initially. So, they have this common foundation year where they have artists and designers drawing and all kinds of stuff.
IP-Ok
JG-And after the first year, they move into one of the ---- and so when Ron and Roger just before me started this program, they just mimicked what they knew in England and what worked in England and they put us there.
IP-Ok

JG-Looking back though, there is a big difference between an [un]industrialized country and industrialized whether it is industrial design, furniture design and fashion in Alberta
IP-Yeah
JG-Alberta is even now, it doesn't really get involved a great deal in what we call the tertiary industry. It does the primary and secondary industries, which is taking oil out of the ground and turning that oil into gasoline, or it takes crude out of the ground, but it couldn't make cars. Making cars are your tertiary industries. If you mine something, if you mine iron ore . . . that's your primary industry. The secondary industry is converting that iron ore in to steel and the tertiary industry is converting steel, and while that is occurring. I came from industrial design practice. I lived in Montreal and I was doing it for one year.
IP-Ok
JG-Because it was 75/76. You have to remember it was the …. One of the first oil crises we had.
IP-Ok
JG-In the United States, there were people who were lining up at gas stations, for cars, petrol, and it had become, in very short supply. So, I was more or less out of a job in Montreal so, it was one year at U of A. I had never taught before, never considered education. So, I though I'll try for a year. So, within 6 months, I began to realize, what in the world am I doing here. There isn't very much in the way of industry here. There was a little bit but not very much. So, anyway, I'll stop there because I don't want to derail you.
IP-No, it's actually really perfect. That really touches on one of my biggest questions. Do you have any idea, why they did establish it at the U of A? You were saying it is because of the educational model having the arts and design courses, but, was there any specific reason why at the U of A?
JG-No, I don't know the history of that time. I mean I could imagine . . . presume.
IP-Yeah
JG-If you hire someone like Ron Davey who brings the knowledge that he knows from Britain here. He will implement that same kind of direction at the U of A.
IP-Ok
JG-If Calgary had hired him, it would have happened there. So much depends on who happens to be the leader like the dean. The dean has foresight and the dean thinks certain things should happen. Or the other extreme the dean is very content with the status quo and doesn't want to try anything radically new. I mean Canada in general certainly in the 60s and 70s when the national design council existed. They borrowed a lot from Europe as far as models to support design activity. The national design council is very much based on the British design council, Danish design council, German design council. There never existed anything like that here in the US, but Canada certainly. If you were to go to the national design council and the group within that that . . . gave scholarships and supported companies, you would find that a lot of the people working there were from Britain.
IP-Were some of the professors from the U of A also from Britain?
JG-Oh yeah. It was not unusual to do that. For example, in the case of Ron Davey, he was British. His associate chair initially was British, Roger Sylvester was British.

Ron Davey was an art historian. So don't look upon him as an industrial designer so Roger was, I believe, a print maker. It started more as an art department, from what I gather, but Ron was very good. He brought in 2 very good people to head that graphic design and industrial design. He brought in Walter Junkin, a very well-known Swiss graphic designer who had worked in Britain, that's where Ron knew him. So again you bring that kind-of European influence. Then he brings in Dave Bennett. I don't know if he knew . . . the other thing is . . . he brings Dave Bennett and Neville Green, who last I knew was living in Vancouver. They were both British. Bruce Bentz is American. I was the first Canadian, really, full time, and the other thing, I was the first practitioner. I never got to know Neville. When I got there, he had left. Dave Bennett was a sculptor, who all of a sudden began to have an interesting ID, but he had never been trained as such and Bruce Bentz same thing. Bruce Bentz was a sculptor. That was not unusual in an art department . . . finding people not trained in that field, but you have to remember in the 1970s, probably when they arrived there, the whole concept of industrial design in Canada, more-so in western Canada, was relatively new.

IP-Yeah

JG-And I mean, for myself, in Montreal, there wasn't an industrial design program in Montreal. It was a furniture design program. This was before the U de M. U de M, its program started in about 1969.

IP-Yeah, I think it was 69 and I'm seeing . . .

JG-I graduated in 69 and went off to England for 2 years. That's where I did industrial design. I started by doing furniture design and I did industrial design at the graduate level, the masters level.

IP-Ok

JG-And when I arrived there, I had several years of practice as well as a master's degree in industrial design, whereas my colleagues didn't have any of that. So I was bringing new ways of thinking, new ways of doing things. They had never really believed . . . considered. Why should they? You are in the middle of nowhere as far as of industry. The only company I never worked for when I was there, I don't know if they are still around. They were called West Cab, really a shortened version of Western Cabinetry Works or something. They were basically office furniture makers and I did a little bit of work with them. That was about it. There wasn't much work to be had most of my time when I got there. Let me just add a little bit here. What happened is: I arrived in fall of 75, I am a faculty member with Dave Bennett who is the coordination of the unit and Burce Bentz, the first 3 of them full time and by November, I can tell you, I wanted to get out of that place as fast as I can. I had a 1 year contract but I'm thinking to myself, they don't know what they are doing. It was a circus and as soon as things settled down, I was thinking I would be back to Montreal and back to practice. The funny thing is several things happened. One of them is, Dave Bennett had spent the year away in England on sabbatical and had decided when he came back he wanted to go back. He didn't want to stay in Edmonton. He left a crack. We were losing something. It would seem to be logical that Bruce Bentz would become the next coordinator. He had been there longer than I had. I had only been there 2 months. Ron Davey called me into his office and said he'd like me to, as somebody who had been practicing in industrial design. I would

like you to write a report on what you think this program is like and what it needs to do to change and so I did that. I gave him the report sometime in the spring. At the end of semester when I was about to pack up my bags. Ron Davey called me into his office again and said I would like to name you as coordinator and I would like you to make those changes you were taking about.
IP-What changes were they?
JG-For example, there was nothing about materials and processes.
IP-Ok
JG-Students were not being taught about the different materials, how you use them. It was still an arts and crafts approach. They went down to the shop and did things, so that was changed. There was nothing about human factors, understanding anthropometrics, ergonomics. What would sometimes happen to design courses was pop-psychology. Where some deign instructor has taken psychology at some point and they begin to teach that. They aren't up-to date on what was happening. For example, that first Christmas, I went back to Montreal and I invited David and Bruce to join me if they wanted to and we would go to see some of my former clients who I worked with, various manufacturing plants where I had been working. That was the first time they had ever seen it, what was going on. That was a reflection that there was so very little of that in Alberta. The whole professional practice, the aspect of contracts and how you get things done and the whole product development and the design development by various stages was disrespected. Even that these new people as well-meaning people had never done it before. They didn't know there was a practice and what you have potentially, and I don't mean this to demean them. You have 2 artists who are not --- to a profession that has some pretty not so much specific rules but it has protocol. They weren't aware, for example, they weren't a member of the ACID. They didn't know what was going on. For me, these changes were bringing that level of professional practice and knowledge into that environment and some of the changes were almost immediate. At that time there was a dye-casting competition. It was a national design competition put on by the --- but was a major design competition and it was always won by schools from Eastern Canada where it was OCAD or even some of the colleges then, they were very good. Out of the blue, when we enter in --- we begin to encourage students and include the --- we end up winning 1st and 3rd prize, but don't quote me on that, I don't remember. From speaking to my colleagues from Eastern Canada, they said: where did you guys come from? I've never heard of you. All of a sudden, you are taking the prizes and that is when we began to make a place for ourselves. The next thing that happened a few years later, I think 4 years, but I left in 79'.
IP-Ok
JG-We ended up actually placing some of our students at the Royal College of Art.
IP-Yeah
JG-That had never happened before. None of our students had ever admitted to programs as prestigious as the RCA and we had 3 of our students actually go to the RCA. That changed the whole stature of the quality of the education, and I hired to replace Dave Bennett, I hired a fellow, Jim Eggler.
IP-Ok

JG-He became a very good friend of me. He lives in Edmonton or Alberta. He came down for a few weeks. He always comes down to escape the weather. So, I hired him and he stayed on after I left and he continued to build the program. The only design consultancy that I can remember was a design consultancy . . . .was made of recent Grads and it had a horrible name of Globbergamp[29] . . . Have you ever came across of?
IP-No, I haven't
JG-It's an acronym, a combination of letters of different people who started it. They had an office on Whyte Ave. They would end up finding work and I remember when talking to them, they were really nice guys. They looked at me as being a bit of a kind of prissy Easterner. They said you'd better get some cow shit on your pants. They won't talk to me. There was that kind of very rural attitude. Things were basically ----.
IP-That's interesting, so what the clobber… gab… group do.
JG-I'll try to guess at it: G-L-O-B-B-E-R-G-A-M-P. You know you may want to . . . I can give you some names: John Craig; Greg Kasa. Those are names you may come across.
IP-I think I have actually.
JG-If you speak to them, ask them about Globbergamp. Certainly, ask them about the spelling. That was about the only design consultancy. Somebody who was part of our program as far as a student and then went on to grad school who is still in Edmonton is Joe Chang. Have you met with him?
IP-I haven't met with him but I found a report with his name and a design company description.
JG-I think the little I know now about what's going on in Edmonton is that he still has an industrial design . . . an office . . . you may want to touch base because he would have been a student…
IP-Oh wow, I definitely will.
JG-I remember it was a question that you asked about the University of Calgary.
IP-Yeah, because they established a program in the late 70s.
JG-Yeah, I was there. I remember flying down to the U of C with the chair of our department who by then was . . . the name will . . . And the . . . we flew down with vice president academic or something.
IP-Ok
JG-Name was Myer Horowitz because we were going to challenge them. Now, it's still in the faculty of Environmental Design had an architecture program. They out of the blue decided that they were going to start an industrial design program. And we were fighting it on the basis that it was difficult enough to keep one design program alive in Alberta. Why did we want another one?
IP-Ok, sure
JG-It just didn't make sense. We didn't win that battle. They started a program at the graduate level. They had certainly it appears more funding than we had. They hired several really good people: Stuart Walker, James O'Grady, Denis Gadbois. Ron . . .

[29] The company was named "Clobbergampe" (see Section 4.5).

ah what his name. Ron Waddell? You know that program did well, but then as you probably know, it closed down.
IP-I think that they are informally offering programs now.
JG-But what I'd heard is they're not admitting any new students. There are people who are still students there. When they finish up, that will be the end, but you may know more about his than I do.
IP-I think Stuart Walker just left.
JG-I know Stuart from writing a book with him. Stuart left a few years ago.
IP-Did Calgary have a different focus than the U of A? It seems from the newspaper articles I have seen. It seems a lot more research-focused and a lot more to do with medical design and industry than the U of A maybe.
JG-Well, they certainly, I think they because of the people they had like Jim O'Grady and Waddell and Stuart, they tended to be . . . They certainly were not art-based.
IP-Ok
JG-And neither are the . . . and if anything the program at the U of A was your typical art based program. At Calgary it wasn't that way at all. They tended to get more involved with hospital, I think. I knew that Ron got involved a lot with one industry based in Calgary called ---- .They made these large wheeled vehicles for the arctic. They were used on the ice fields these huge tires.
IP-I have definitely seen those.
JG-He did a lot of activity with that --- It was different. It wasn't as art-based. There is an element of what we do that is visual, but the different between visual and art based. I think the program at the U of A has become now more art-based, furniture-as-art. Again, don't quote me on that. All I know is that I got a letter from the Chair not that long ago, maybe 2 or 3 years ago because one of the faculty members was going up for promotion because he was seeking a letter of recommendation from an external person. I saw this person's portfolio and it was very much furniture. Coming out of most modernist . . . furniture, chairs or art.
IP-Was that maybe Tim Antoniuk?
JG-Yes, I believe it is.
IP-Ok
JG-I couldn't really comment on that because it was not an area I've worked in. I can't talk about it. I'm sure Alberta is having --- but that has always been the issue. Eventually, that's why I left after 4 years. It is because it's one thing to be teaching industrial design at a university, but it's something else not to not actually see it around you. That can be very ----most of our students ---
IP-And that was the case when you were working at the U of A. The students that you did have would leave?
JG-We didn't have that many students. What they would end up doing because many were native to Arizona is they would take their industrial design skills and convert them to other ways elsewhere. You would take general creative, visual skills and then you could get to apply them in areas . . . government, it could be brand manager, a company or something.
IP-And that was at the U of A?

JG-Yeah, I can't think where these people could have gone in order to do industrial design. That initial design development of everyday products. There was so little of that in Alberta.
IP-Ok, fantastic. I just might ask you some of my specific questions, briefly. Just, so that I know, how do you define industrial design?
JG-Haha, oh God.
IP-I need to know if your definition aligns with the one I'm using.
JG-I don't have one, but for me, when I teach it I borrow definitions from others that I find useful. I mean first thing is, what I find useful is Herbert Simon's definition because industrial is anything that is created artificially. His basically is anyone . . . I will try to quote it exactly. Anyone designs … no it's plural. Everyone designs who . . . I'll have to paraphrase it. Everyone designs who devises a means to change an existing situation into a preferred one. That is what it is. What we as industrial designers do is basically find a way to change an existing situation into a preferred one. Then, let me give you the one based on Simon that I teach to first year.
IP-Ok
JG-First year course called "Design Awareness." Let me give you the one . . . on my laptop. What I have done . . . I teach students from Engineering . . . a lot of other areas . . . Ok, here is. Here is how I write it: design is the universal activity that humans everywhere undertake to find the means to change an existing situation into a preferred one. I make sure that I tell them that I'm paraphrasing Herbert Simon. The point I'm trying to make here is everyone, I don't like the kinds of comments that you hear from industrial design that somehow I'm blessed because of certain conditions or genetic codes that you don't. I can do it and you can't. That's bullshit.
IP-Like an elitism, yeah.
JG-Like an elitism, like I'm special or whatever. I don't believe either that it's just a Western thing, it's only from industrialized countries. All somebody has to do is go to a developing country. I've been to places like a remote fishing village in Chile and you see the boats that they have there, using every day to go fishing. I could never build one. So, don't give me the bullshit that is only industrialized countries.
IP-Absolutely, yeah.
JG-So, to me industrial design, craft, design, and architecture is a miniature silo within a universal and human attitude that we all have.
IP-Ok. Thank you. I just wanted to ask if you could give some mores specific dates or developments in the program. You mentioned that there was a graduate level course. Do you happen to know what date that happened?
JG-No. When I arrived, it was a bachelors program and there was a master of Visual Design.
IP-Ok
JG-And that has changed. I am told they don't offer a BFa anymore. They offer a BDes. I don't know if they offer and MDes. They were made after I left.
IP-That's great. I think a lot of my questions have already been answered. What was the program's reception within the U of A? Was it welcomed?
JG-It was small and it was certainly within a larger program. It was the department of art and design. Fine arts there were more faculty. In sculpture and printmaking and there weren't always these kind of feelings, which still exist, I am told. Between

artists and designers that artists are pure and not doing it for money. Designers are prostitutes, because they are doing it for money.
IP-Ok
JG-There was always that kind of thing. Designers are practical, we are trying to find rational solutions. The others are expressing their soul or whatever. I'll give you a perfect example. When I was visiting one of these committees to do with . . . Somebody applied and they were going to . . . this person was a printmaker . . . what this person was going to do that year was to set up a printmaking facility at their house. So, I just . . . said: in other words, if an industrial designer took a 1 year leave and set up an office. NO, no, no , you can't do that because you are setting up an office to make money and I am setting up an office to express myself.
IP-Ok, yeah. I guess because it's aligned with the fine arts department, there wouldn't have been any associations with the engineering department, would there?
JG-Only at a personal level. One fellow in Mech-Eng was a friend of Dave Bennett who would come over on a regular basis. Less so or more-so now, but if you end up making friendships then you can get engineering or psychology to take an interest but there was never anything official that allowed that to happen.
IP-Ok. Do you happen to know how many students graduated roughly each year in the 70s?
JG-I wouldn't . . . remember, we're talking about a handful like 10 or 12 per year, but I won't know. I barely remember my telephone number or my wedding anniversary.
IP-Ok, well, thank you. Just a very rough idea is good . . . what were the backgrounds and demographics of students? Because you were saying that a lot of them were maybe from rural areas?
JG-Yeah, they weren't all that way. Most of them . . . we had very few international students. Joseph Tang was one of them. I say international, he may have been originally from Hong Kong and came to Canada with his parents. There was another Chinese student who is going extremely well out of Toronto, Andrew Young. Most of them were local people, people from Alberta. Remember, it would have been the only place . . . if they wanted to study industrial design. I mean, we had magnificent facilities. We may have been in the middle of nowhere, but what we had was quite something. There were mostly people from in and around Alberta and they certainly had no intention of leaving Alberta.
IP-Ok
JG-There were a few. I can remember a few names like ones who went to the Royal College: David Beddington, no Dale Beddington. There was another fellow by the name of Herb Bentz, same name as Bruce but not related to him at all. Another person also Evita Knatski. These are some of the people I do remember. I remember some who went to the Royal College. The other one I remember because I started taking students to Europe.
IP-Ok
JG-And they joined me on a trip to Europe.
IP-Oh, wow. Were there any female students?

JG-It was mostly male but for example, Evita is a woman that was . . . But again, you're asking me a lot to go back to '75 and remember names. You tend to remember the ones that made a good impression on you, but the others not.
IP-Ok, well I think that just about is all my questions. Thank you so much for your help.
JG-You are more than welcome.

Figure 17. Geoffrey Lilge interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

GL-Geoffrey Lilge
IP-Isabel Prochner

--- Incomprehensible
... Pause

IP-My first question is, how do you define industrial design in your practice?
GL-It would be the design of manufactured objects. My practice is pretty … has been . . . pretty fundamental in that way. It's just been . . . we got into self-production immediately after school so there was no clients. There have been a few clients for production jobs but never a traditional industrial design practice as you'd know it. It's always been a manufacturing situation. My definition of design is . . . my definition of my practice or?
IP-Just how you see industrial design like to see if it aligns with what I'm working with in my thesis.
GL-Yep, the design of manufactured objects.
IP-Ok. That sounds good. Can you describe the development of your industrial design practice? When you first started to get interested in it, your education . . . companies you've worked for and that sort of thing.
GL-I have got a pretty late start into it. I was doing an arts degree and I saw some interesting furniture it got me curious. A friend of mine was studying industrial design and I went and saw his studio. It just intrigued me: the tools and the process of model making and . . . brainstorming and conceptualizing. That sort of process intrigued me, so I started taking classes. I didn't . . . I've never worked for a design firm or a manufacturing company. I've always worked for myself but I was probably 22 before I really even knew what industrial design was. It came later on. I was always interested in building things.
IP-So what years were you at the U of A studying industrial design?
G-Finished in 1992 . . . Started in 1989.
IP-Ok. Then, I understand you guys maybe 5 or 6 of you from your graduating class started Hothouse
GL-Six of us, then another person, Tim was the year after us. Then another person who was from Grant Mac, a graphic design graduate.
IP-Ok
GL-So it was 8 of us.
IP-I though you all started the same time
GL-Well, we started at Hothouse all at the same time. We did Hothouse for a 1 ½ until late 1994 and then we started . . . the 3 of us left and started Pure Design.
IP-What was the reasons for leaving, for changing?

GL-We wanted to get a more professional shop and take it to the next level of manufacturing. We were all doing our own building projects of making things and selling them and we wanted to be a little more organized.
IP-Ok. And you guys operated from 1994-2005 or so?
GL-2004.
IP-Ok
GL-1994-2004.
IP-So, could you describe the strengths, the weaknesses, the focus. Just a little bit about your company.
GL-Our company was first and foremost a manufacturing company. We made all of our own products. Our strength was that we did innovative design that reintroduced some new product categories, we did some hybrid designs. We worked free-lance designers. I was the design director so I would seek out designers to work with and make their work. Used that in our marketing, so that was what we were known for. One of the first companies to work with Karim Rashid, Scot Laughton, Richard Hutten, a Dutch designer, Stephen Birks, right when he was young. We worked with some young designers right when they were just starting. It was interesting to see their career . . . the directions. Our strength was we had a diverse collection of products, diverse contemporary collection.
IP-I guess once you left Hothouse, Tim was saying at least that Hothouse changed its focus as well. What do you see as the major differences between Hothouse and Pure Design?
GL- . . . At the time we thought we were doing different products. They were designing their own products. They had their own style. Their products had a unified style, whereas our products were more diverse. We had a more diverse collection. Their collection looked quite homogeneous. It looked very tied together. So, stylistically we were different. We had different marketing, but essentially we were pretty similar.
IP-Where were you selling most of your products to? Was it locally or abroad?
GL-80% to the US, a little bit to Japan, a little bit to London, the rest to Canada.
IP-And then locally, you had a store in Calgary and Edmonton?
GL-No. They had stores, we didn't have stores. Just they did.
IP-So, why do you think it was . . . there were these two companies? You were very successful. What do you think the climate was that was allowing for that?
GL-Design was sort-of becoming in-vogue. People were starting to look at their furniture in different ways. I mean, our bread and butter products in the first five years were CD racks. CD racks were a niche that we really needed. We exploited it and it was very profitable. It founded the rest of the company or supported the rest of the company. It was really good timing that we came up with this product that was high in demand and contemporary, good looking CD rack was a hot seller. We started doing them then they started doing them at Hothouse. They sold really well and were the drivers of both companies, I think.
IP-Now, Pure Design, I'm confused. It seems like it's still operating. There is still a website.
GL-I left the company in 2003. My partners then folded . . . closed the company down and sold the name to another company in the US.

IP-And they sold some products, or different ones?
GL-They took some of the manufacturing licenses, including a wall shelf that I designed and they are still making them. I really don't know. They've got this little kid's shop. I don't know what the hell they're doing. It's something I don't look at. It's kind of something I'd rather forget about, in terms of them buying the name. It's unfortunate.
IP-Pure Design is mentioned in so many places. In the Canada design book and I went to design exchange in Toronto and I asked for design archives from Alberta and they had this huge folder of Pure Design stuff.
GL-We were able to . . . I did all the marketing. Since we worked with all these different designers, that was our marketing plan and it really worked in terms of getting publicity for the company. We became internationally known. Everyone knew the name Pure Design for a while there.
IP-So, what have you done since?
GL-Since 2003, I did a ceramics collection that I wanted. I basically started another company, a small company and I tried to do a collection of ceramics, a small collection and I test-marketed it. It just didn't sell. I did a lot of restaurant interior design. I've done a few furniture design projects, nothing major and then a few years ago, I decided to start this cutting board collection and get back into making my own products.
IP-And that's really successful?
GL-That's how I make my living. It's smaller scale, obviously. It's a higher end product and more expensive but I took my thesis and designed a company that I wanted to operate. I wanted to design my own lifestyle and my own way of doing business. It's exactly what I want to do. It's different. I'm not doing trade shows and not getting a ton of publicity, but I'm selling enough so I can make a living.
IP-Do you see that as being what a person would do in Alberta to be an industrial designer?
GL-It's a sense of necessity. I don't see a lot of options for students who are graduating. I see . . . part of my thesis was to develop . . . a knowledge base that students could start their own self- production project or just be informed of new models of practice. The traditional models in Alberta don't work because there's no manufacturing. There's is no provincial funding for promotion of manufacturing, we've found. It was frustrating that way compared to Québec or England or . . . European countries, you know? There was no real support form provincial level or federal level. There was a bit of back in the 90's but that's all gone now. It's not an ideal environment to start a new business, manufacturing business. Manufacturing has been pushed aside, I find in Canada. It's hard to say … that there's any relevant manufacturing other than high-tech or nano-technology. That's a whole different ball game, really. In terms of manufacturing of products and furniture, it's just not happening in Alberta.
IP-Is that similar throughout the province?
GL-There was some furniture being done in Calgary. Haworth? I think they're closed. You should look into that. It was once a source for employment but I'm not even sure if it's there anymore. You know, there are small companies here and there but nothing . . . no major furniture manufacturing going on. You know . . . if you

consider that the U of A has an industrial design division and no architecture department, you know. There are thousands of architecture jobs in Alberta, right? I don't really see a connection. That's where I saw a need for . . . educating young designers for how to start their own manufacturing or their own model of distribution or licensing, that sort of thing.
IP-So what do you see as a change from when you were first staring as a designer in the early 90s to now in the reception of design, or . . .
GL-When I was at school there was 1 design firm and now there is none. So that's a change haha. There was Design Works or Two Design, just a couple of little industrial design firms. I'm sure there could be. Over the years there have been these little divisions of architecture firms, an industrial design division.
IP-Like Manasc Isaac.
GL-Yeah, but it's almost. They develop an in-house product like the shutters or something like that, but in the traditional sense, it's more of a hobby thing. I don't know. You can't go there with a manufacturing or with a product and get them to design it. They don't work as a consultancy. It's in house and I'm not sure what they're doing now. It's always, to tell you the truth, I don't know why there aren't at least a few firms that could scrape together some exhibition work or . . . it's all being done but by companies in Vancouver. I have no idea what's going on in Calgary but . . . have you found anyone in Edmonton?
IP-Just from people I know it seems like whenever there is a graduating class people start up their own company. For example, Loyal Loot in Calgary.
GL-In Edmonton. Mostly here, there is one person in Calgary and one of them just moved to Scotland to go to school. Loyal Loot would be a design studio. They don't do any consultancy work. They just do their Log Bowl, they sell it. They're good people but not really a design firm.
IP-I just know a few little examples like that from reading in the paper: White Moose?
GL-That's Tyler, the guy. I'm not sure what he's been up to in terms of projects lately but he curates the odd design show.
IP-I have some more questions, but I forgot to ask. What exactly happened in 2004 or 5 for Pure Design to shut down?
GL-When we were selling products to the states in the '90s. The exchange rate was phenomenal, phenomenally beneficial to us. We were getting $1.40, $1.45, $1.50 for every dollar that we sold. So we were making healthy margins. That gradually disappeared over 10 years. In 2003, we were dabbling in overseas manufacturing. We never committed fully to it. Hothouse did the same thing and we . . . 9-11 was a bit of a road . . . or excuse me, speed bump. Exporting in the US wasn't really something that was thought about really for 6 or 8 months. That really affects a company that's young and doesn't have a lot of capital. It was perfect storm of different economic conditions and more competition from CD racks coming in from Asia took away that profitable section, sector of our business. Just basically we, our sales dropped substantially within a couple of years. It was enough to knock us out, same as Hothouse. They closed down a couple years before us right?
IP-Yeah, I think so . . . You said you left in 2003 was that to do you master's degree?
GL-No, I just left. I went to Vancouver. I was still an owner of the company.

IP-Just to clarify, what years were you doing your master's degree?
GL-2008-2010 . . . or 7 to 10. I took a half year off as well.
IP-Ok. From what you've seen other people doing in Edmonton and Alberta in their design practice, do you think your experiences fit or do you think your experiences are similar to theirs?
GL-I think they're similar to Hothouse, but that was 8 people. I honestly think what our 2 companies did was quite extraordinary for design in North America. You don't see it happening. We sort-of was the exception, really. You see, you know companies like Loyal Loot . . . They're doing things on a . . . and even what I'm doing now, lots of companies doing that but what we did is probably comparable to what Molo is doing in Vancouver or Occi in Vancouver. We were selling millions of dollars' worth of products a year. It was big business, big production. What you see now is craft-level production. Designers doing product development but doing small . . . you know . . . small runs, that sort of thing.
IP-For craft-level production, are the markets similar?
GL-No. They're pretty specific. We were selling to Crate and Barrel. Products, we were selling to larger big-box chains. You don't do that when you do craft-level stuff.
IP-Are you selling as much to the US or internationally, or is it more locally?
G-My boards?
IP-Yeah, or generally.
GL-I sell to retailers in Canada more but I sell to individuals in the States more. Half of my business is selling to individuals on my website and the other half is selling to stores as a wholesalers.
IP-My next question is: we're always talking about selling abroad, but how to industrial design fit within Edmonton, the cultural, social context, economic context?
GL-I mean, we are relatively speaking, small companies. 40 employees at a time, which to us seemed massive, but relatively speaking is pretty small. I like to think we did good things for that 10 year period we were able to employ some people and . . . bought a lot of steel from local suppliers. We were proud to be manufacturers. It was something we were . . . we weren't having products made offshore in Asia. It was something that we stood behind. We liked having . . . we were making local products, before that was really a term, really. We were almost too proud of that, so it led to our demise, our demises, really. Relatively speaking, were pretty small. I think industrial design has a very low profile in Edmonton just because there is no manufacturing . . . aside from the school here, that's the highest profile it has.
IP-It's hard to tell really because I find often industrial designer are on the front page of the life section on the Edmonton journal. They get a little bit of press . . .
GL-It's not reflective of what they do business wise. It makes good stories. It makes good press. It would, I would like to see more of those stories be about design entrepreneurial sort-of projects. I think a problem, not a problem, but young designers are often more interested in getting media coverage than developing a sound business proposal or developing a product that could be profitable. It's more important to win a contest or be in a magazine than make money, which I find really bizarre. It's good to have publicity, absolutely that's free advertising, you can get your product out there, but you have to have a product that sells, to make money from.

IP-Do you think that Edmonton's industrial design community has a particular identity?
GL-I don't. I think Canadian design, even Canadian design, I find. Design in general is becoming quite global. It's not… we're not Scandinavia. We're not ever going to be anything like that. You see the odd beavertail chair or something like that. Its sort-of . . . . plays on it a little bit but I don't see that as part of a design identity. Alberta, Edmonton, Canada, I don't think really.
IP-So what do you think industrial design practice in Edmonton and Alberta will be like in 10 or 15 years.
GL-I hope it's a lot stronger. I hope there are some policy decisions made by the provincial government to support manufacturing. It all goes down to manufacturing. You can't even talk about design before you talk about manufacturing. Unless there are some changes to promote manufacturing in Alberta, there won't be any design. Improvements in terms of profile or employment opportunities. It's all about how can we promote manufacturing, how can we promote products that are made in Alberta internationally through export development programs. How can we turn some of ours . . . we don't have a whole ton of raw materials that lend themselves to manufacturing. Like soft wood lumber, isn't really something that can be flipped into a million different products, you know.
IP-You mentioned in the 90s there was policy that supported design?
GL-It's called PEMD. It's a liberal government program that helped companies fund trade shows, that sort of thing. We used that and it certainly would be good to have again.
IP-That's all my questions. Do you have any guidance you can offer me, or any suggestions or comments?
GL-I'd look into, how the provincial government supports design. If you have a criticism about what's wrong with industrial design in Alberta, that's where I'd start. There no support from the government towards manufacturing that I can find anyways. There's really no thought of giving to that whole industry, or maybe there is . . . I haven't thought of it. Federally as well, what are they doing? Is this PEMD program ever going to come back? I would look into the Alberta research council or whatever. They are doing so much technology work. There has got to be a lot of design hidden there somewhere. How are they developing design in that context? Have you talked to Robert Lederer?
IP-Not in an interview…
GL-Ben King. There have all been healthcare, rehab medical products. There seems to be very much going on with that, while I don't really think about it. It still is design but there may be news that they know about, or some manufacturing that they're privy to. In terms of furniture and product design, it is a ghost town . . . I think the U of C people will be . . . they know what's going on in Calgary. I don't'.
IP-What was your motivation to stay in Edmonton?
GL-My family is here, I've got a house here, I got married, I have kids, I have a restaurant here. I see so many kids go to UBC and go to architecture. There isn't much here to keep them here once they get out of school. That's what inspired me to do my thesis. I was teaching all these kids as a sessional. They were all finishing

school and going into architecture. It just seemed odd. It’s not unexpected, there’s no jobs in design, maybe a handful.

Figure 18. Sean Maw interview transcription.

Sections of the interview may have been removed at the request of the interviewee to maintain confidentiality.

SM- Sean Maw
IP-Isabel Prochner

--- Incomprehensible
... Pause

SM-Well I can answer those questions but I want to make sure it's crystal clear in whatever you write up, there is no industrial design program at Mount Royal right now and if you were talking to the provost, he would say there aren't any plans right now. We've done a fair bit of planning work but at the highest levels, they haven't bought in yet.
IP-Ok . . . I guess a lot of people know about the plans. People have been telling me that 'you're aware that Mount Royal University is considering that kind of thing'. I wanted to know what's happening so I can get as informed as possible.
SM-Ok. As long as you have that understanding, it's all good. It may be that it never happens but we have been planning as if it might. I guess the rationale . . . well the rationale for doing it preceded me. I've been at Mount Royal University for 6 1/2 years now. I was hired to help further the work for a plan for industrial design. I think the motivation stemmed from the fact that there was an engineering transfer program, there is. There's also an interior design program at Mount Royal University. Industrial design would be a good bridge between the two.
IP-Oh, that's really interesting.
SM-I guess the feeling was it would be a bridge that would help link things on campus. Mount Royal, at that time, and still is looking for niche 4 year degrees.
IP-Ok
SM-The feeling was that this kind of degree wasn't really available elsewhere in Alberta.
IP-Ok, so a bridge between interior design and engineering.
SM-Right, but this program wasn't really being offered in Alberta right now otherwise. The U of A kind of have something going on, but it's very specialized and ---. The U of C has a graduate program that has some emphasis on industrial design but not at the undergrad. The feeling was especially in Alberta, if not all in Western Canada, an approach similar to Carleton or Delft in the Netherlands.
IP-Ok
SM-Would . . . we could occupy a niche there. It would fit well within the Mount Royal University context. That was the rational for getting into it.
IP-Ok. So, I remember you mentioned before you were looking at Carleton as being a more technical program. So that's the approach you're going to be taking?
SM-Bridging between engineering and interior design, if you want to think in those terms. We were thinking this would be a . . . this would be one of the more technical industrial design programs in Canada, similar to the one in Carleton. In fact, in our

advisory committee, we had a few graduates of the Carleton program, so they brought that perspective to the table as well. Looking at what was in Delft as well. Really, looking at the . . . say for example . . . designing cutlery or something. Obviously there is materials engineering, manufacturing engineering, but there's also a lot of aesthetic and artistic content. If you're an engineer, you probably can't get into the artistic side, can't get into that strongly enough. If you're an artist, you can't understand the engineering side, materials process. We were sort of dialing into have enough knowledge of those 2 sides to either lead and coordinate or in some cases do independent work on one zone. Indeed, the entrepreneurial emphasis of the program is meant to help seed Alberta with these entrepreneurial industrial designers who are not looking, like we had a lot of talk about this. Should we be looking at a retail model? Getting industrial design who are going to make mass produced goods. The feeling was that's not the best idea. Ontario's got that cornered. On the other extreme, you could talk about industrial design as more artists making one offs. Similar to, for example, the furniture program in some cases where you're designing individual pieces of furniture. We were looking more at design of small batch . . . products for processes . . . where you're looking at not one offs but not mass production either. Something in between. So, that's what we were looking at as a focus in terms of the degree of manufacturability in terms of how mass production oriented we'd be.

IP-So, you, I guess … in relation to the other programs, you're more technical than the U of A would be, but compared to SAIT, being a very closely related to engineering and such, would you be in between the 2 programs?

SM-I'm not totally familiar with SAIT. It is more of a technologist type orientation. As far as I understand it. Our students would be radically . . . if the program goes forward . . . they would have grounding in statics, dynamics, algebra, and calculus. In other words, they would have some components of a first year engineering education. A lot of components actually and even some components of second and third year in things like manufacturing and materials. Which I think in a certain respect is a sort of higher level that things going on at SAIT in terms of a higher design level understanding.

IP-So, the best of both?

SM-In the other hand, SAIT they're learning a lot of manufacturing processes, which, at least initially, we wouldn't have the facilities or the orientation to deal with that quite as much as they would. All of these different programs are looking for their niche.

IP-Yeah, absolutely. Would you be able to explain how the field of industrial design would be perceived by yourself and by the people establishing the program?

SM-Sure. My background is not industrial design. My background is systems design engineering from Waterloo, which is a design orientation. A design oriented program but in engineering.

IP-Ok

SM-Certainly, I have a strong interested in design, which is why I was hired to help the industrial design program, but having worked with several industrial designers in our advisory committee, I have come to appreciate some of the differences between engineers, industrial designers, and artists along the continuum if you will. They're not as separate as people would make them out to be. I found the industrial design to

be a very ironically, a very silo-ed lot. They'd say you're an engineer, I'm an industrial designer, as if those had no relationship. So I found quite disappointing because there are some industrial designers with fine engineering skills, some engineers with fine industrial design skills. Not to say those are the norms, but there are many examples of those things. Why artificially put up a barrier? It seems like, I can relate to this from systems design that has a difficulty defining itself. Industrial design has difficulty defining itself as well, or at least communicating that to the rest of the world. As a result it kind of depends on who they are or what they do. Again, I can relate to that from being in an engineering discipline not well known or well appreciated. So, I saw elements of that and certainly vary greatly depending on the individual. I think industrial designers are a relatively small population and they have a lot of pride.

IP-Ok

SM-A lot of valuable attributes which the greater economy and society doesn't fully appreciate and take advantage of. I think because they fall between the cracks, that transition between art and engineering. People thing I need an artist or an engineer, not the person in the middle.

IP-Ok

SM-I think in that respect, they have. Industrial designers have challenges in terms of defining their industry. It . . . identifying a clear niche in which they can occupy and be successful, but clearly some are. I think if you have an industrial design team, you often have industrial designers on those teams. They are meant to be bridging people and translate between artists and engineers.

IP-I just have little questions about how people got talking about establishing the program at Mount Royal University in the first place. Would you be able to tell me the person who spearheaded it in the beginning?

SM-No, I don't know. There was a guy that preceded me. He was at Mount Royal University and he quit. Ryan . . . Worthington?

IP-Ok

SM-I'm not sure what his last name. I'm pretty sure his first name was Ryan. Anyway, he found a better opportunity in industry and left Mount Royal University. My understanding is he was the first person who started working on it and I took over from there. Part of the drive for him to work on it was the last chair of Math, Physics, and Engineering dept. at Mount Royal University. She, I believe was supportive and encouraging and pushing that. As to why, I'm not sure. I know the prior dean was also supportive and had been pushing for that as well again. I'm not sure exactly why. My suspicions were people saw the institutions was moving towards degrees, this seemed like a good fit to Mount Royal University and to Alberta and to Western Canada. I think the other thing was we knew we weren't going to get a full engineering degree program. The question was what else could we do that's close to that or related to that? Industrial design seemed like a natural choice.

IP-So, it's been maybe 5 or 10 years? Do you know the time frame?

SM-Yeah. You're probably close, I'd say 7 years from the start of work on it. To be honest, in the last year or two, there hasn't been much work at all. We took it to the level of the university's institutional review of programs, it was making some progress and we ran into issues of cost, and then the recession hit.

IP-Ok.
SM-Because it's an expensive program to run, I mean, no industrial design program is going to be cheap. Because it's expensive to run and we ran into a recession and people aren't confident we're out of that recession, that's one of the biggest problems we're facing right now. Zero budgets. So, I mean if we had more money, if there was money for growth, we could probably be talking more serious about if and when. We've been told there's 0% increase in our budgets for the next year or 2. There's no chance of industrial design getting started again in terms of a planning process.
IP-Ok. That's good to know, definitely. How would you imaging the graduates of the program fitting within Alberta's economy and industries?
SM-Well, we had identified several directions that graduates could go. We felt they would be well prepared for graduate school in design fields especially industrial design. The U of C though inconsistent in their support did say, oh, we'd love to take some of your undergrads into our graduate program. There is that. So, we . . . around the world, anywhere. Another avenue would be there are some designs firms in Alberta . . . run by industrial designers and they would hire some of the graduates . . . we felt that some would go to other degrees as well, like engineering or architecture or something close and maybe get a second degree in area they felt particular affinity for that hadn't fully satisfied with through the industrial design program. A few would go that way. Our target was 40 new students per year. It's not like we're talking about hundreds. We felt a certain number would be equipped and motivated to start their own businesses. Entrepreneurship aspect, tying into some of the business programs at Mount Royal University. So, we expected some would try to establish small businesses. ---- and then, others would seek employment elsewhere in Canada, whether that's in Western Canada or back in Eastern Canada, or wherever. Some would find employment outside e of Alberta. Hopefully, certainly, on the order of 10 to 15 a year or so, would either get into business or start their own businesses or whatever here in Alberta each year. The rest would be grad school and going elsewhere.
IP-What do you think the contributions would be . . . it's quite exciting the thought of all these industrial design coming into Alberta. Would be the impact on Alberta's cultural context?
SM-I think it would be huge. To me was one of the main reasons to get the program going but I must admit the pick up on that was a little weak in places, in other words outside of design circles . . . I think it would be huge because basically you're . . . we're . . . Alberta economy relates largely around oil and gas and agriculture. That's probably a huge proportion of the economy here. It needs to diversify.
IP-Yeah
SM-And this kind of activity would be great. Sort of small to medium business, which really contributes to the economy and helps diversify and stabilize it. As you said, there's a cultural aspect of this. We envisioned a design school if you will, a Western/Alberta design philosophy or mentality developing. Like some of the design houses in Europe. So, developing a distinct culture of design.
IP-Ok.
SM-In Western Canada

IP-Wow, that's fantastic. Do you have any examples of design practices in Alberta that you are inspired by, or basing this approach to design education on? Is there any studios in Calgary or Alberta that you think are good examples?
SM-Not that I'm really well familiar with.
IP-Ok
SM-I mean, architecturally speaking there are . . . you've got a log cabin type style that is especially popular in the mountain areas, in Canmore or whatnot. That comes outside of the foothills too sometimes, but in terms of product design and things like that. I wouldn't say so. There isn't in my exposure and experiences a real Alberta design culture or style, rather.
IP-Ok
SM-But I'm not an industrial designer. I'm not as dialed into that as other people would be.
IP-What is your background, your education and your post at Mount Royal University?
SM-Engineering so my first degree was an undergraduate in systems design engineering at Waterloo, master's degree in systems design engineering at Waterloo. Then a PhD in neuroscience at U of A then 5 years doing R and D at Olympic Oval in Calgary. Then the past 6 years teaching engineering at Mount Royal University with a specialization, if you will, we all teach all the courses, but I'm the design guy to some extent. With the systems design background, I have more design training.
IP-Yeah, I was looking on your website. Well, that's pretty much all of my questions but this is great information.
SM-A big caveat on it, it's not happened, never happened but certainly we had a good idea but a little bit of bad luck with the economy but I think if the economy loosened up and got going, there would be some potential to more forward at Mount Royal University but I'd have to say right now my suspicion is nothing is going to happen with it for a little while.
IP-I'll definitely keep that in mind. I completely understand.