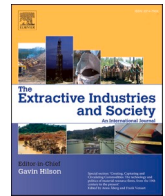


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Original article

The buzz phase of resource extraction: Liquefied natural gas in Kitimat, British Columbia

Marieka Sax^{a,*}, Daniel Tubb^b^a Postdoctoral Researcher, Geography Program, University of Northern British Columbia, Prince George (3333 University Way, Prince George, BC V2N 4Z9, Canada)^b Associate Professor, Department of Anthropology, University of New Brunswick (13 MacAulay Lane, Annex C, Fredericton, NB E3B 5A3, Canada)

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ABSTRACT

This article names a distinct temporal period in resource development and extraction—the buzz phase. The buzz phase draws attention to the years (sometimes decades) of speculation, exploration, assessment, and preparation for a major project, including everything that leads up to operations, whether or not a project actually becomes operational. The social impacts of the buzz phase are experienced by people living and working in zones of present and potential resource extraction, transportation, and processing. A workshop on liquefied natural gas (LNG) development carried out in Kitimat, British Columbia (Canada), is discussed to illustrate and outline the social impacts of the buzz phase. Six provisional themes are proposed as possible areas for future research: hope and fatigue; material and social changes; distribution of impacts; affective impacts; imagined futures; and what is left unsaid.

1. Introduction

In October 2018, a consortium of international investors announced construction would begin on a CAD\$40 billion liquefied natural gas (LNG) terminal near the town of Kitimat, on British Columbia's north-west coast.¹ This final investment decision set in motion a flurry of activity to begin five years of construction on the processing plant and export facility. Although backers remain confident that LNG Canada (as the terminal is called) will become operational by the middle of the decade, construction has faced roadblocks, including nation-wide protests associated with the supporting pipeline, the fall of natural gas

prices, and the COVID-19 pandemic. When LNG Canada is built, people in Kitimat will have been hearing about and preparing for the project for more than ten years before it becomes operational.

LNG has been a topic of intense debate and speculation in British Columbia since the provincial government made the industry a pillar of its energy policy in the early 2010s.² LNG Canada's 2018 final investment decision was noteworthy for both British Columbia and Canada, not the least because most LNG projects in the province have never moved past the proposal, assessment, or permitting stage. LNG Canada did not meet the same fate as thirteen similar facilities and supporting pipelines submitted for review in British Columbia since the early 2000s.

* Corresponding author at: Department of Geography, University of Northern British Columbia, Prince George, 3333 University Way, Prince George, BC V2N 4Z9, Canada.

E-mail addresses: marieka.sax@unbc.ca (M. Sax), dtubb@unb.ca (D. Tubb).

¹ Shell Canada Energy, the Malaysian-owned PETRONAS, PetroChina, the Japan-based Mitsubishi Corporation, and the Korea Gas Corporation (KOGAS) make up this investor group.

² Former premier Christy Clark (2011–2017) championed LNG, as does John Horgan's current BC government (2017–present) (Ministry of Energy and Mines, 2012a; Ministry of Energy and Mines, 2012b; Lee, 2019).

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Six similar projects have already been cancelled in nearby Prince Rupert, and a further seven proposed export facilities and supporting pipelines remain in limbo for Kitimat, Prince Rupert, Vancouver Island, and Squamish.³ It is not a foregone conclusion that the years of planning and preparation will actually result in a multi-billion-dollar LNG industry for Canada.

Since many proposed projects fail to move to construction and operations, we contend that attention should be extended to an understudied phase of resource extraction and development—when exploration is undertaken, consultations are conducted, investment is secured, and a project is evaluated as both possible and desirable. We name the extended period of time leading up to the operations of a natural resource project the *buzz phase*.

Much more than an abstract concept, the buzz phase produces both tangible and intangible changes in the lives of people living in areas of resource extraction, processing, and transport. Our approach complements emerging methodologies that consider the cumulative social, health, and environmental impacts of past, present, and future development. Existing social impact assessment processes and regulations are intended to assess the environmental (and to a lesser extent social and health) impacts of a proposed project once construction and operations begin. Few social impact studies consider the earliest, often terminal phase of resource development. Fortunately, scholars working in other fields are exploring the social, cultural, and other changes that accompany the potentialities, anticipatory affects, and imagined futures of resource extraction and development. Our aim is to bring these two broad literatures into the same conversational space, while defining and outlining the contours of the buzz phase.

First, we provide brief overviews of social impact assessment, the legislative and regulatory context in Canada, and the diverse literatures relevant to the buzz phase. We define the buzz phase, and then we generate a series of questions to ask of this time period by discussing a workshop that Marieka facilitated in Kitimat in early 2020. We focus on six thematic areas grounded in the comments of workshop participants and reflected in the literature: hope and fatigue, material and social changes, distribution of impacts, affective impacts, imagined futures, and what is left unsaid. Finally, we conclude by considering the implications of the buzz phase for social impact assessment research and practice.

2. Social impact assessment

Social impact assessment (SIA) originated alongside environmental impact assessment as a requirement of the United States' 1969 National Environmental Policy Act (Burdge and Vanclay 1996; Esteves et al. 2012). Over the past 50 years, researchers and practitioners working on SIA around the world have developed multi-layered understandings of social impacts and how they should be assessed (Interorganizational Committee on Guidelines and Principles for Social Impact Assessment

³ This is based on our review of LNG facility and supporting pipeline applications made to the BC Environmental Assessment Office, the BC Oil and Gas Commission, the Impact Assessment Agency of Canada (formerly the Canadian Environmental Assessment Agency), and the Canada Energy Regulator (formerly the National Energy Board) up to the end of 2019. Once an application is submitted, it goes through an extensive review process, with the goal of having a permit issued. After that, a project may begin construction, be cancelled, or remain in progress (i.e., with no update provided on the regulator's website). In our review of LNG project applications in BC, 1-3 years passed between application submission and permit issuing. However, a third of LNG projects were cancelled before this could happen, and one project (Pacific Northwest LNG) was cancelled even after a permit was issued. The LNG Canada terminal and Coastal GasLink pipeline were the only projects that moved on to construction; five years passed between application and the start of construction for the terminal, and six years passed between application and the start of construction for the pipeline.

1995). SIA refers to a process of “analysing, monitoring and managing the social consequences of planned interventions” for resource development and infrastructure projects (Esteves et al. 2012, 34). While state legislation and regulation for assessing social impacts is relatively common, it is no longer limited to governments, as SIA processes are increasingly required by international financial institutions and industry-specific guidelines (Vanclay and Hanna 2019). The field continues to develop in response to a changing global context, with an increased focus from governments and project proponents on human rights, social license to operate, and benefit sharing (Vanclay, 2020).

In addition, efforts are underway in numerous jurisdictions to integrate social and health impacts along with impacts to valued environmental components (Franks et al. 2013; Gunn and Noble 2011). Cumulative effects assessments have grown around the world since the 1990s, focusing on the cascade of direct effects and indirect impacts of past, present, and future resource development activities, the additive changes produced in environments and communities, and the health of both (Canter and Ross 2010). Research shows that when multiple extractive and industrial activities occur in the same space, the impacts combine and add onto one another, producing combined effects in land areas, watersheds, airsheds, and populations that exceed the footprint of any one particular project (Gillingham et al. 2016; Gislason and Anderson 2016).

We follow Frank Vanclay (Vanclay, 2003) in defining social impacts as changes to a people's way of life, their culture, their community, their political systems, their environment, their health and wellbeing, their personal and property rights, and their fears and aspirations.⁴ The exact indicators chosen for assessing the social impacts of a given project have to respond to the particularities of a place. Such indicators should be selected using an evaluation process, including a scoping review, scan of existing data, and consultation with a variety of stakeholders, rights-holders, and decision-makers (Becker et al. 2003; Burdge 2003; Slootweg et al. 2001). The weights assigned to each indicator will be different from one locality to another, and to groups within a community (Burdge and Vanclay 1996; Vanclay 2002).

Taking notice of the social impacts brought about during the prolonged period of preparation and anticipation for a proposed project—which may or may not ultimately happen—is difficult. Social impacts are complex problems with no one causal factor or solution. They can be characterized as a “wicked problem”: A socially embedded dilemma difficult to define and characterized by complex interdependency, whose attempted solutions often result in unintended consequences (Parkes et al. 2016; Rittel and Webber 1973).

Baseline and longitudinal studies are required to measure changes in social dynamics, needs, and assets as a result of resource development (Brown et al. 2005). However, current SIA legislation and practice are directed towards anticipating and mitigating the impacts of projects during construction, operation, and wind-down. Impacts observed during project exploration and planning are not the clear responsibility of any particular agency or company. Since the impacts of the extended pre-operational time period are beyond the scope of existing impact assessment processes, dedicated research is needed to draw attention to the changes brought on by the buzz phase.

3. Impact assessment in Canada

In Canada, a project may fall under federal or provincial/territorial jurisdiction, and after approval is secured, permitting may fall under both. Canada passed a new Impact Assessment Act in 2019, accompanied by a restructuring and expansion of the renamed Impact Assessment Agency of Canada in 2020. This agency evaluates the impacts of

⁴ Various scholars and practitioners have offered other organizing devices and heuristic categories for social impact assessment (e.g., Arce-Gomez et al. 2015; Gramling and Freudenburg, 1992).

proposed projects for resource extraction, energy generation, and public infrastructure on federal lands. While the Act is overall an improvement compared to its predecessor (Hunsberger et al. 2020), researchers say it falls short of what was recommended in the expert panel convened by the government during a two-year review process (Doelle and Sinclair 2019). Nevertheless, the Act introduces important advances, such as stronger language around Indigenous rights, an early planning phase, undertaking regional and strategic assessments, and supporting environmental sustainability obligations (Gibson 2020). The Impact Assessment Act also significantly expands the range of assessment to include consideration of the social, economic, health, and environmental changes a project will bring over the long-term.

Each province or territory also has its own agencies and regulations for assessing projects that do not fall under federal jurisdiction. In British Columbia, resource development and industrial projects that meet certain criteria are evaluated—and ultimately approved or rejected—by the Environmental Assessment Office. British Columbia brought in a reformed Environmental Assessment Act in 2018 and a revitalized Environmental Assessment Office in 2019. The changes were intended to improve public participation and transparency, advance reconciliation with First Nations, and promote both environmental and economic sustainability (Province of British Columbia 2018). In addition, the province introduced a Cumulative Effects Framework in 2015 to support the assessment and management of the combined environmental and social effects over time of the province's natural resource sector. While an interim policy has been released (Natural Resource Board 2016), additional guidance for the implementation of the Cumulative Effects Framework in relation to decision-making for resource development proposals has not been made publicly available since this gap was pointed out in 2015 (Auditor General of British Columbia 2015).

In summary, there are multiple levels of assessment, permitting, and monitoring for natural resource development projects in Canada and British Columbia. While there are limitations to both Canada and British Columbia's assessment acts (Johnston 2018; Smith and Clogg 2018), they are important tools for evaluating the many potential impacts of resource extraction. Missing in the existing regulation and practice, however, is attention to the social and other impacts generated during the buzz phase.

4. The buzz phase in the social impact assessment and the energy humanities literatures

There is an extensive literature on the social impacts of resource extraction and development, represented by the work of social impact practitioners, sociologists, geographers, economists, environmental scientists, health researchers, and others. Since this diverse body of work makes explicit reference to social impact assessment as an area of practice and framework for understanding, it can be characterized as "SIA literature". Common topics include employment and business opportunities; economic spillovers; infrastructure and service delivery; population growth and demographic changes; social disruption; occupational health and safety; industrial accidents; ecological degradation and pollution; worker camps and fly-in-fly-out work; policy, regulation, and decision-making; corporate social responsibility and social license to operate; community perceptions of risk and benefit; and local conflicts arising from opposition to or support of major projects.

Consider five literature reviews that collectively synthesize the findings of over three thousand studies on the socioeconomic and health impacts of mining and oil and gas development (Brisbois et al. 2019; Buse et al. 2019; Cust and Poelhekke 2015; O'Rourke and Connolly 2003; Stienstra et al. 2019). For our purposes, there are three key take-aways from these reviews. Social, economic, health, and environmental impacts may be positive or negative. Impacts are unevenly distributed among populations and within communities. And marginalized groups disproportionality experience negative impacts. As important as these insights are, the general temporal focus of the social

impact literature is on what happens during a project's construction, operation, and decline. While there is significant research on preparatory activities as defined by impact assessment processes (e.g., public consultation and stakeholder engagement), the SIA literature does not systematically explore the impacts of these preliminary activities during the buzz phase.

Fortunately, much can be learned about the social impacts of this time period by looking at other areas of research, which can be grouped under the rubric of "energy humanities". The potentialities, anticipatory affects, and imagined futures of resource extraction have been explored by critical geographers, political ecologists, environmental historians, development scholars, anthropologists, and others since at least the 1990s. Here we sketch out key themes and highlight examples in the energy humanities literature relevant to the buzz phase.

Numerous scholars examine conflicts arising from proposed resource extraction projects around the world (e.g., Boudewijn, 2021; Lassila 2018; Otchere-Darko and Ovadia 2020; Rasch and Köhne 2016). Some researchers focus on regulatory processes such as environmental assessments (Bernauer, 2020; Dalseg et al., 2018; Li, 2009) and impact benefit agreements (Cameron and Levitan 2014), or associated topics such as consent (D. Scott 2020) and the perception of risk (Espig and de Rijke 2016; McEvoy et al. 2017). Others look at why large-scale schemes so often fail (T. Li 2005; J. Scott 1998) or remain unfinished (Carse and Kneas 2019), what is left in the wake of this failure (Ferguson 1994), and the material traces of unfinished and abandoned past development (Gordillo 2014; Peyton 2017; Tsing, 2015; Turkel 2007).

Researchers bring a wide range of perspectives to exploring the relation of resource extraction to colonial regimes (Grek-Martin 2007; Hoogveen 2015), territorial expansion (Rasmussen and Lund 2018), nationalism (Davidov 2013; Jackson and Dear 2016), and post-neoliberal imperialism (Veltmeyer 2013). Others explore how the construction of resource frontiers (Tsing, 2003), the discovery of profitable resources (Kamat 2017; Mkutu and Mdee, 2020), and land acquisition in preparation for extractive activities (Ogwang and Vanclay 2019) result in the dispossession and displacement of already marginalized peoples. Such researchers approach resource extraction as an environmental, cultural, and political issue (Willow and Wylie 2014).

Various scholars investigate resource speculation (Kneas 2016; Kneas, 2020; Zalik 2010), fraudulent mineral claims (Tsing 2000), and the economic effects of anticipated resource extraction revenue (Frynas and Buur 2020). Others explore the challenges in imagining alternatives to extractivism (Acosta 2017), particularly given how resources such as oil permeate seemingly every aspect of contemporary life (Bridge and Le Billon, 2017). Researchers also look at the temporalities of natural resources and the "temporal politics" surrounding resource extraction (Fent and Kojola 2020). Nostalgia for the past and hopes for the future impact the positions people take in relation to potential resource development (Kojola, 2020). Indeed, potential resource extraction changes how people imagine the world around them (Willow et al. 2014), including their sense of place (Kunkel 2017).

In addition to this interest in resource imaginaries and the imagined futures of resource use, scholars have begun exploring the emotional geographies of resource extraction (Ey et al. 2017; Graybill 2019; Murrey 2016). A seminal piece in emotional geographies is provided by Pile (2010) provides an overview of affect in geography, and González-Hidalgo and Zografos (2020) provide an overview of emotions in political ecology.

As this overview of the literature indicates, many researchers are exploring the direct effects, long-term impacts, and wide-ranging implications of past, present, and potential future resource extraction from a variety of perspectives. The challenge is to bring diverse, rapidly expanding, and often siloed areas of research into conversation with one another. This brief overview of some of the key themes in the SIA and energy humanities literatures begins the work of outlining the contours of what we have identified as the buzz phase.

5. The buzz phase

The buzz phase refers to the time period—sometimes lasting years—of speculation, exploration, and preparation, including everything from investment decisions to construction, which lead to, but do not include, operations.

Why does this matter? While impact assessments are carried out as part of the review process for project approval, what is being assessed is the prospective impact of project construction, operation, and wind-down. However, several resource industries may already be operating in an area when new projects are proposed. Intensive exploration, consultation, and assessment of one project may occur at the same time as a boom or bust in another project. Sometimes projects that succeed in obtaining final approval and permits are stalled for years or abandoned by investors. Finally, in the volatile commodities industries, even projects that begin construction are not guaranteed to result in operations.

In regions heavily invested in multiple forms of resource extraction such as northern British Columbia, the prospect of another major project in the near future garners a significant amount of local speculation and attention. In the context of ongoing “regional waves” of resource booms and busts (Ryser et al. 2014), the buzz phase is characterized by a heightened sense of possibility, expectation, and, sometimes foreboding. Communities and individuals are impacted in various ways by the years of activity, discussion, and conflict that take place during a project’s exploration and preparation. The social and other changes during this early phase are rendered invisible, never properly measured, assessed, or responded to.

To sketch an agenda for researching the social impacts of the buzz phase, we adopt a questioning mode modelled on James Ferguson and Tania Murray Li’s (2018) article, “Beyond the Proper Job,” and apply it to the LNG terminal under development in British Columbia.⁵ We strategically chose this approach in order to ask what we do not yet know of the social impacts of resource development before operations begin, and how a focus on the buzz phase can advance our understanding of industries and sectors characterized by extended periods of preparation and investment. We make little claim to originality, as many of the associated community and social impacts have come under sustained research in the literature under other heuristic frameworks. Nevertheless, we suggest the buzz phase is a useful framing device and temporal frontier for assessing social impacts.

In the following sections, we generate a series of provocative questions about the social impacts of the buzz phase of resource development. We group these questions under six broad themes that have emerged from our research to date. While our discussion is not intended as either a comprehensive literature review or research report,⁶ it is grounded in the specificity of a community workshop held by Marieka about the social impacts of LNG development in Kitimat, British Columbia.

⁵ Ferguson and Li (2018) sketch a political-economic program of inquiry to understand global trends in informal, precarious, and non-standard employment as something central to the modern industrial context rather than an abnormality compared to the normative “proper” jobs represented by waged and salaried employment. To set an agenda for this area of inquiry, they articulate a series of questions that can be applied to diverse research contexts. In elaborating these questions, they deliberately adopt the questioning mode of a classic anthropological field guide that first appeared in the late nineteenth century, *Notes and Queries on Anthropology*. This field guide introduced essential questions that researchers planning ethnographic fieldwork should ask. We follow the example of Ferguson and Li (who were following the example of *Notes and Queries*) in sketching out a series of questions to ask of the buzz phase of resource extraction and development. Rather than producing answers, our present intent is to generate these questions.

⁶ The findings of our literature review on the social impacts of the buzz phase will be forthcoming. Findings from the Kitimat-based research project will be made publicly available once data collection is completed.

6. Kitimat, British Columbia

Kitimat is one of two research sites in a larger project on the social impacts of the buzz phase of resource development in British Columbia (BC) and New Brunswick (NB).⁷ Marieka is a white settler and the lead for the BC case study. She first visited Kitimat in the summer of 2018 (before LNG Canada’s final investment decision), and met with local government representatives and community-based organizations to see if this research would be welcome and useful. Marieka maintains regular and transparent communication with the District of Kitimat, the Haisla Chief and Council, community-based organizations, and interested residents through community reports, a project email list, and the project website.

Marieka held a community workshop at the public library in Kitimat in February 2020, mere weeks before British Columbia declared COVID-19 a public health emergency.⁸ In the week leading up to the workshop, Marieka met with staff in local government and community-based organizations, and promoted the event through social media, local advertising, and word of mouth. The purpose of the workshop was to publicly launch a qualitative research project designed to better understand how women, men, and gender-diverse people living in the Kitimat area are impacted by the buzz phase of resource development, and in particular LNG development. The workshop was intended to hear what Kitimat area residents thought about the project, and to engage participants in reflective activities by which they could share what they, their family, and their community are experiencing as a result of the buzz around LNG.⁹

As people arrived at the library the day of the workshop, the meeting room filled up, and an accordion wall was opened up for the overflow. People read the project brief, ate sandwiches and snacks, chatted with friends and acquaintances, and sat watching the projector or enjoying the view. The window framed the winter snow melting under the onslaught of seasonal rains characteristic of a wet coastal climate, with surrounding mountains in the background. Kitimat is located at the start of a deep and narrow fjord that cuts from the Pacific Ocean into the Coast Mountains, covered by temperate rainforest, no longer old growth, but still thick with hemlock, spruce, and cedar trees. This is the traditional and unceded territory of the Haisla Nation; the seat of the Haisla government is in Kitamaat Village, ten kilometers from the town.

The LNG Canada terminal is the latest chapter in a history of a town whose population (currently about 8,000) expands and contracts with the boom and bust of resource industries. Kitimat was built by the Aluminum Company of Canada, now Rio Tinto Alcan, in the 1950s to house the workforce for a newly constructed aluminum smelter.¹⁰ It is a

⁷ Daniel is a white settler and the lead for the NB case study. More information about both research projects is at the project website at <http://www.research-buzz.ca/>.

⁸ Due to the ongoing pandemic, Marieka has not returned to Kitimat since February 2020; research is being conducted remotely through an online survey, a series of arts-based workshops in collaboration with Tamitik Status of Women, and telephone/online interviews.

⁹ Participants at the workshop were informed about how information they shared that day would be included in the research project, and consented to this through their continued attendance. The Kitimat-based research project has been reviewed by the Research Ethics Board at the University of Northern British Columbia.

¹⁰ The construction of Kitimat was accompanied by the construction of the Kenney Dam to service the Kemano hydroelectric generating station, the power source for the aluminum smelter. This massive engineering feat, begun in 1951, continues to have significant environmental and social impacts throughout northwestern British Columbia (Christensen 1995; Coates 2007; Picketts et al., 2017). Among other things, the Kenney Dam resulted in the forced relocation of Cheslatta First Nation to make way for the Nechako Reservoir (Windsor and McVey, 2005) and the granting of a perpetual water license currently owned by international mining giant Rio Tinto (Schneider and Andreau, 2018).

place situated on a remote edge of British Columbia, a two-hour flight from Vancouver and a ten-hour drive from Prince George, the province's geographic center and the *de facto* capital of a region the size of France and commonly called northern British Columbia. The area has been a frontier for developmental dreams and a sacrifice zone for natural resource extraction for a century and a half (Peyton 2017),¹¹ once with gold rushes, commercial fishing, and forestry, and now with mining, hydroelectricity, and oil and gas. While the economic benefits of resource projects in northern British Columbia flow to metropolitan poles—often Vancouver, Ottawa, and the offices of transnational corporations—natural resource industries profoundly shape the lives and life ways of diverse peoples in the areas of extraction.

The sustained talk about the anticipated impacts of LNG development is particularly relevant for towns like Kitimat that face a steady stream of project proposals. In the year leading up to the Kitimat workshop, Marieka informally presented the idea of the buzz phase in towns throughout northern British Columbia. From Fort Nelson to Tumbler Ridge, to Vanderhoof and Kitimat, people nodded in understanding—they live the buzz phase every day. Virtually everyone in Kitimat is connected to resource development in some way. They, their spouses, or their children work in industry, or their families are involved in construction and other supporting sectors. This shapes how people talk about resource development: the LNG terminal, like Rio Tinto, is an ever-present frame of reference.

Before LNG Canada's final investment decision, industrial activity in the area had shrunk to the aluminum smelter. Kitimat had been in an economic slump since a project to upgrade and modernize the smelter ended in 2015. With the LNG terminal, the sites of industries that closed down in the 2000s will be repurposed into a sprawling complex. It has been estimated that during construction, the town's population will double in size. Even though most construction workers will not stay, the Douglas Channel will be busier than ever with tanker traffic because it offers one of the shortest routes from western Canada across the Pacific. LNG Canada will pipe in natural gas from the northeastern corner of British Columbia, outside of Dawson Creek over 600 kilometres away, and super-cool it into liquid form for trans-oceanic transport. The enterprise is billed as bringing clean gas to Asian markets (LNG Canada 2018).

That day in the library, Marieka presented an outline of the research activities that she would carry out: an online survey, an arts-based workshop, a series of focus groups, and semi-structured interviews. The discussion period following the presentation was lively. Someone asked who would be invited to participate in interviews and focus groups. Others wanted to make sure the voices of seniors and other groups would be heard. Some people spoke about concerns for the environment, how local stores and restaurants were forced to cut back hours after losing staff to higher-paying industry jobs, and the increased cost of housing. A few people expressed that they or their businesses were benefitting from the project. After the discussion, Marieka pointed to prompts on five poster boards taped around the room and invited people to respond. A hum started as people moved around, chatted together, wrote answers directly on the posters or on sticky notes, and signed up to a communications list to receive updates on the research project. Marieka floated around the room, talking with as many people as she could. Six broad themes emerged through these conversations and what people wrote on the poster boards: hope and fatigue; material and social changes; distribution of impacts; affective impacts; imagined futures; and what is left unsaid.

¹¹ Peyton (2017) writes an environmental history of the material remains of construction to support resource projects, during an earlier wave of the buzz phase in northern British Columbia.

6.1. Hope and fatigue

“For you, what would make this two-year study worthwhile?” read the poster at the registration table. Respondents wanted to hear feedback from the workshop, learn more about the arts-based component, and see findings published and taken seriously by decision-makers who could act on recommendations. One respondent was even more pointed about their desire to see a positive change in a key area of their life, simply writing “need low rents.”

There have been more than half a dozen research projects in Kitimat over the past ten years.¹² The University of Northern British Columbia's Community Development Institute convened a series of community-based dialogues to better understand the impacts of large industrial projects in the area (Morris and Halseth 2014) and to track the impacts of economic growth between 2011 and 2016 (Ryser and Halseth 2017). After the 2005 closure of Methanex (a methanol and ammonia plant), and the 2009 closure of Eurocan (a pulp and paper mill), Kitimat was grappling with a major drop in population and economic activity. A new wave of resource-based activity started up in 2010. First came the modernization of Rio Tinto Alcan's aluminum smelter between 2011 and 2015, then the Enbridge Northern Gateway (a proposed oil refinery and export terminal effectively quashed by the federal government in 2015), and finally a series of LNG proposals. In addition, researchers with the Community Development Institute studied how intensive and often rapid resource development in Kitimat impacts community development (Halseth and Ryser 2016), rural governance (Ryser et al. 2018), and housing (Ryser et al., 2020). Kitimat was also a case study in a larger research project of how workers engaged in long distance labour commuting are impacted during exploration, construction, and operations for resource development projects (Ryser et al. 2019). Meanwhile, a separate research team comprised of a partnership between the University of Guelph, Haisla Nation, and Tamitik Status of Women (a Kitimat-based women's organization) undertook a five-year study of the experiences of wellbeing of women in the Haisla Nation and District of Kitimat in relation to ongoing resource development (Community Vitality Advisory Group and Research Team 2018).

People at the library workshop expressed great enthusiasm for and interest in Marieka's research project. Yet many participants knew that Kitimat has been the subject of other studies, and they wanted to see further research result in improved planning processes and living conditions. This speaks to hope, at the same time as it points to “consultation fatigue” (Esteves et al. 2012; Gislason and Anderson 2016). People want to see concrete results from all the energy being poured into a seemingly steady stream of public consultation with governments and proponents—not to mention researchers. While such engagement is crucial for sound governance and decision-making, there are opportunity costs to engaging in so many research and consultation processes (Colvin et al. 2019).

Major projects offer potential for local growth and development, but it is unknown at the onset which projects will successfully move forward to operations, and which will ultimately be cancelled. What gets put on the backburner while municipal, provincial, and First Nations governments respond to project proposals? What do local stakeholders and rights holders sacrifice in order to engage in consultations? What else could the time, energy, and resources have been allocated to? These are some of the questions to be asked, with sensitivity to the many demands made on the time and energy of the people and groups being consulted.

6.2. Material and social changes

“Where have you seen changes over the past year in Kitimat?” read

¹² Kitimat has also been studied as an example of urban planning for an instant company town (Cross, 2016; Larsen, 2005; Lucyk et al., 2014; Morisset, 2017; Richardson, 1964).

one of the posters taped to a wall, implicitly acknowledging that construction on the LNG terminal had begun in early 2019. The board had twenty categories, including some added by participants. The categories concerned services and infrastructure (child care, education, health services, housing, social services, transportation), broader needs and assets (accessibility, business opportunities, food security, jobs, shopping, teacher and worker recruitment), specific groups (at risk populations, seniors, Indigenous and non-Indigenous youth), and quality of life issues (community belonging, community safety, cost of living). People put a green sticker where they saw positive impacts, and a red sticker where they saw negative impacts. At the end of the workshop, there were over seven negative stickers for every positive one. All categories received a sticker, but twelve received nothing positive. Jobs had ten stickers divided equally between positive and negative. Transportation had ten stickers, all negative. Housing, youth (considering youth in general and Indigenous youth in particular), teachers, and seniors all received relatively high numbers of negative stickers. The Kitimat workshop indicates that changes are produced in a region, long before a project begins operations, with impacts arising specifically from a project's proposal, assessment, and site preparation.

To its credit, LNG Canada has created dialogue with local decision-makers and service providers in monitoring and mitigating the social impacts of its terminal plans and construction activities. First the company set up a Community Advisory Group, and then a Social Management Roundtable, which includes representatives from community organizations, local and Indigenous governments, and regional, provincial, and federal agencies, as well as JGC Fluor (the main construction contractor) and LNG Canada itself. This could generously be read as corporate social responsibility, with the Social Management Roundtable meeting regularly to address education, utilities, emergency response, community health, community amenities, road and air traffic, and housing and accommodation.

Nevertheless, there is a tendency in impact assessment processes to focus on material assets, needs, risks, and opportunities (Bernauer, 2020; Li, 2009). In addition, existing regulatory processes, such as environmental impact assessment, focus on physical outcomes. Material impacts are important to consider; after all, what are the consequences of seismic testing, geological sampling, and site selection? How are plants and animals impacted by the construction of roads, railways, and transmission lines, which open up access to forests, disturb land, and modify waterways? What is the increase of greenhouse gases from more traffic and industrial activity? How does a municipality plan for a sharp increase in demand for civil infrastructure such as roads, communications, power, and water? It is more challenging to monitor, measure, and proactively plan for relational and experiential domains of change (Kojola 2019; Spiegel et al. 2020).

6.3. Distribution of impacts

"Who or what do you think is impacted by resource development?" read another poster. It featured a large bullseye with six concentric rings. The rings were labelled self, family, friends and neighbours, co-workers and acquaintances, community, and environment. The poster highlighted impacts of resource development at different social levels. People put blue stickers in each ring for positive impacts, and yellow stickers for negative impacts. At the end of the workshop, there were nearly three negative stickers for every positive sticker on the board. Each ring held at least one positive, but far more negatives. The exception was the outermost environment ring, which received no positive and fourteen negative stickers—the most of any ring.

This quick activity seemingly reduced people's experiences to a binary of positive and negative. However, research shows that individuals, communities, and localities experience a mixed bag of advantages and disadvantages from resource activities (Stienstra et al. 2019, 2020). More than merely positive or negative outcomes, the literature indicates that direct and indirect impacts are unevenly distributed within

populations and over time. People have different and changeable experiences, because of their social capital, political power, material resources, and the structural risks and limitations that shape their lives (Amnesty International, 2016; Kojola 2019). A spike in employment, income, and opportunities, along with inflation, increased service demand, and social disruption, can exacerbate already existing inequities and create new ones.

In their comments and discussions, people at the workshop recognized the experience of benefit is not universal. "Some people have blinders on," people say in Kitimat. This points to the tendency of some people to only see what is right in front of them, and to assume everyone can enjoy high wages, increased property values, and opportunities for business. But for many, better wages do not come. For those who cannot afford a vehicle, it is more difficult to travel to Terrace (about a 45-minute drive away) or other urban centres for shopping and services. Renters are particularly vulnerable to being squeezed as housing prices soar. Caregiving and the hustle to pay bills may overwhelm many, including single parents, survivors of family violence, people grappling with alcohol and drug use, and those living with complex mental health issues.

Some people have the supports, energy, and ability required to participate in the opportunities a project brings. Others do not. Who can more easily access the advantages, and who disproportionately experiences disadvantages? How does the unequal distribution of benefits and burdens intensify existing social tensions or create new ones? How are the impacts of the buzz phase carried by marginalized groups such as single mothers, recent immigrants, racialized people, members of the 2SLGBTQI+ community, or people with disabilities? Whose voices are being heard, and whose voices are not? What happens to low-income individuals and working families who are just trying to get by? By saying different people experience the advantages and disadvantages of a given project differently, we draw attention to equity in social impact assessment.

6.4. Affective impacts

"What are you most concerned about with resource development now?" read one of the posters taped to the large front windows. People wrote on sticky notes about lost trees, polluted air and water, destroyed birding habitats, pot-holed roads from increased traffic, worker camps that did little to support local commerce because they supply goods and services on site, and a lack of teachers, aid nurses, and caregivers due to higher living costs. But the most consistent issue was housing. Housing is a subject that generates passionate commentary in Kitimat whenever resource development is mentioned. Housing is also a necessity of life that profoundly affects physical health and safety, and emotional and psychological well-being.

Within days of LNG Canada's announcement that construction would begin, there was a rush on real estate in Kitimat. Almost all available houses were bought up by out-of-town investors. Property assessment values shot up and a residential construction boom was set off in nearby Terrace. The District approved plans for a new townhouse complex, a hotel, and an RV site in anticipation of a construction peak between 2022 and 2024. While many have benefitted from the real estate boom (including one workshop participant who commented that they sold their house far above the price they expected), not everyone has had such luck.

The District of Kitimat anticipated this, and had a housing action plan and needs assessment on hand (CitySpaces Consulting 2015, 2020). LNG Canada quickly built three modular accommodation camps outside of Kitimat to house the 1,000 construction workers who were on site by late 2019. Worker camps were chosen over the other common industry practice of issuing an allowance to cover accommodations, meals, and incidentals. For example, with a CAD\$200/day living allowance, six workers could rent a house together. This had caused a rapid spike in housing prices in Kitimat during the modernization of the aluminum

smelter, which everyone agreed should be avoided.

Despite mitigation efforts, the structural underpinnings for housing insecurity persist in Kitimat, and are exacerbated by the buzz. In late 2019, Kitimat had a vacancy rate of nearly 40% (District of Kitimat, 2020); rather than indicating that all residents had housing, the issue was that many could not afford rental and house prices. “Renoviction” is a concern for many people, who fear being pushed out of rental housing on the pretext of a major renovation, only to find they have been priced out of their unit after upgrades are completed. Low-income people who experience housing insecurity are forced into substandard housing, unsafe shared living conditions, couch surfing, or are pushed to other residential markets such as Terrace.

More than simply a material condition of people’s lives, housing has a profound impact on safety, wellbeing, and quality of life. Housing pressures exacerbated by resource development have been documented in Kitimat (Ryser et al., 2020) and comparable jurisdictions (Ennis et al. 2013; Lehman and Kinchy 2021). What are the lived consequences of a shortage of affordable housing compounded by a resource buzz? Is something else related to living situation at stake, such as territorial displacement (Mkutu and Mdee, 2020; Ogwang and Vanclay, 2019)? What other psychosocial stresses (Fisher et al. 2018), impacts to well-being (Dalseg et al. 2018), and changes to quality of life (Willow et al. 2014) do people experience as a result of prospective resource development? How do people feel about the ways they can access the advantages of the buzz of activity (or not) (Murrey 2016)? What do people hope for and fear in a proposed project (Jackson and Dear 2016; Kamat 2017)? How are people impacted by unfulfilled expectations if a project is cancelled? Will they feel differently about the next project that is proposed? People may experience a wide range of thoughts, emotions, body states, and total life situations in relation to the buzz of resource extraction and development. These could be termed “affective impacts” after Kathleen Stewart’s (Stewart, 2007) work on the affective dimensions of everyday life.

6.5. Imagined futures

“What are you most excited about with resource development now?” read the final poster. People answered by writing on neon orange or pink sticky notes. Most of the comments were about jobs. With good jobs, more youth would elect to remain in or return to Kitimat to raise their families, some wrote. Jobs would bring a diverse population, a bigger tax base, improved public spaces and infrastructure, more services, and more choices in local businesses, others wrote. Local contractors and tradespeople were already benefitting from construction contracts. Yet, jobs were only temporary, others wrote—the optimism was not universal. Long-time residents had seen boom and bust cycles before, and they questioned the transitory nature of these jobs. Finally, a handful of notes indicated the respondent was not excited about anything.

The prospect of local employment is one of the most common topics people in Kitimat bring up in relation to future outcomes of prospective resource development. Yet high-paying industry jobs in small towns like Kitimat are complicated. While good jobs are important to a vibrant community, the demand for construction workers draws people from other sectors. Local government and social services scramble to recruit, because people leave for better-paying construction, engineering, and assessment jobs. Restaurants and stores reduce services due to staff shortages; filling minimum-wage jobs is hard when unskilled industry jobs start at CAD\$20 an hour. The promise of a good job also attracts new arrivals. But while some people secure positions before coming, others fail to find work on arrival, and are stranded in Kitimat unable to afford to live or leave, which puts strain on employment and housing assistance organizations.

British Columbia’s nascent LNG industry has generated a lot of excitement, especially in the northern half of the province. Local and regional economic benefits—with the promise of good jobs—have been and continue to be a central feature in the future imagined through LNG.

Expectations are the project will create economic growth from municipal and provincial tax revenues, thousands of construction jobs, hundreds of operations jobs, and indirect jobs and revenues in local and regional businesses from associated goods and services (LNG Canada 2018; Ministry of Finance 2019).

Yet this is only part of the picture. Many of the workshop participants expressed strong concern for the negative impacts that LNG Canada’s construction is already having on animal habitat and forest integrity. People also commented on their concern for access to and enjoyment of natural places, and broader environmental impacts such as water and air quality. Indeed, researchers caution that LNG Canada’s operations will increase carbon emissions, and make it impossible for British Columbia to meet the targets of its 2018 climate action plan (Heerema and Kniewasser 2017; see also Hughes 2015; Stephenson et al. 2012).

Natural resource projects generate narratives and counter-narratives of potential benefits or burdens (e.g., Boudewijn, 2021; Chen 2020; Espig and de Rijke 2016; Kamat 2017; Willow et al. 2014). People talk; columnists write articles; corporations make promises; activists pen opinion pieces; environmentalists express concern; and politicians support their electoral campaigns. Along the way, the promise of hundreds of billions of dollars in economic activity shapes the stories told of a place and the experiences of people living there.

Large-scale proposals become something onto which possible futures are projected (Davidov 2013; Kojola, 2020). What futures are seen as dreams, what potentialities are seen as nightmares, and for whom? What do narratives and counter-narratives make visible, and what do they gloss over? How do major projects shape what is imagined as a desirable future—and what is possible to imagine? Considering the buzz phase requires considering the impacts of resource extraction and development on imagined futures.

6.6. What is left unsaid

In qualitative research, what remains unsaid may be just as important to understanding the research question as what is said. For example, there was something participants presumably knew about, but no one brought up during the Kitimat workshop: The very public contention over the pipeline that would support LNG Canada’s terminal. A few weeks earlier, Wet’suwet’en land defenders and their supporters mobilized against the Coastal GasLink pipeline. The pipeline is a separate project from LNG Canada’s, and is backed by a different set of investors. Coastal GasLink’s approved project is to build a 670 km pipeline from the shale gas fields outside of Dawson Creek to supply the LNG Canada terminal near Kitimat. The pipeline route will cross many jurisdictions throughout northern British Columbia, including the unceded traditional territories of over twenty First Nations.

Wet’suwet’en Hereditary Chiefs have rejected all pipeline proposals on their traditional territories (Office of the Wet’suwet’en 2018). The Wet’suwet’en Nation has strongly asserted their unceded rights and title to their traditional territories, as evidenced by the 1997 landmark case, *Delgamuukw v. British Columbia* (see Temper 2019). Wet’suwet’en representatives had opposed the Coastal GasLink pipeline in court in 2018 and 2019. Things came to a head after the British Columbia Supreme Court granted an injunction against two Wet’suwet’en checkpoints. A solidarity movement gained momentum in early 2020. Indigenous and non-Indigenous supporters across the country blocked strategic rail lines, marched in the streets, and demonstrated at ferry terminals and government offices. The Royal Canadian Mountain Police (RCMP) set up their own checkpoints on Wet’suwet’en territory, conducted armed raids of the Wet’suwet’en checkpoint camps, and arrested 28 people to enforce the injunction order.

Tensions began to ease in the week leading up to the Kitimat workshop, when Wet’suwet’en Hereditary Chiefs entered into negotiation with the government of British Columbia. These negotiations resulted in a memorandum of understanding on the still unresolved issue of territorial dispute, a significant development as Wet’suwet’en territory has

never been relinquished through a treaty process. However, the additional issue of who should represent the Wet'suwet'en Nation in consultations for resource development projects remains unaddressed. Coastal GasLink had consulted with the Wet'suwet'en elected Chief and Council, but many Wet'suwet'en members have asserted that the elected band council is an instrument of the colonial settler state, and does not have the right to make decisions about land use according to Wet'suwet'en law. As of June 2020, Coastal GasLink's activities on Wet'suwet'en territory resumed, without the consent of the Wet'sutwe'ten Hereditary Chiefs.

The Coastal GasLink pipeline is just one of the many highly contentious resource development projects in British Columbia. While economic development fueled by natural resource extraction is desired by many, shale gas (fracking) (Chen 2020), oil and gas pipelines (Spiegel et al. 2020), mines (Kunkel 2017), clearcut forestry (Shaw 2004), and hydroelectric dams (Cox 2018) draw criticism and resistance from a broad population base across the province.

These events and movements show that another impact of resource development is the forms of resistance and solidarity created during the buzz phase. Terminals, pipelines, and other projects can intensify tensions within and between communities, revealing the already uneasy and constantly negotiated field of Indigenous-settler relations (McCreary 2018) made more visible by the overlapping issues of territory, self-determination, land use decisions, and resource extraction (Sloan Morgan et al. 2020). Through social movements that are, on one level, imagining alternative futures to business as usual, networks and coalitions can also be formed with land and water protectors, Indigenous rights advocates and their allies, and environmental activists near and far (e.g., Saarikoski et al. 2013; Steinman 2019).

This can happen even in towns like Kitimat proud of their resource history. In 2014, district residents voted in a plebiscite and opposed becoming the terminus for the Northern Gateway pipeline (Bowles and MacPhail 2017). Many Kitimat residents are quick to point out that crude bitumen (for which Northern Gateway was intended) is a completely different product with what are often regarded as more serious environmental risks than liquefied natural gas. Such a comment provides a reason for the general support for LNG Canada, while deflecting attention away from any misgivings the speaker may have about the current project.

People at the workshop did not bring up the Coastal GasLink protests. Nevertheless, many were clearly concerned about the impacts that LNG would have on their lives. Their concerns were often quotidian—jobs, housing, services, the immediate environment—but generally did not express outright opposition. People in resource towns and close-knit communities navigate complex micro-political terrains. Often where major projects are concerned, people need to maintain a delicate balance between public consensus (whether it falls on the side of support or opposition) and private sentiments (whatever they may be) (e.g., Rasch and Köhne 2016). People often choose to “not talk politics” in order to avoid conflicts with family, friends, neighbours, and coworkers, who they will continue to live and work alongside whatever happens to the project. Researchers of the buzz phase can learn much from paying attention to what is not explicitly said, yet is implicitly known to be at stake, for the people who live with the impacts of a project now and in the future.

7. Conclusion

In this article, we have drawn attention to the social impacts that may be observed during the distinct temporal period preceding the operation of major resource development projects, which we call the *buzz phase*. There is an intense, sustained, flurry of activity and anticipation around major projects, which impact individuals and communities—whether or not the extraction of natural resources actually occurs. Far more than abstract possibilities, the social and other changes accompanying the buzz phase are experienced by people living and

working in zones of present and potential resource extraction, transportation, and processing.

We discussed the example of a workshop on LNG development carried out in Kitimat, British Columbia to illustrate and outline the social impacts of the buzz phase. Kitimat's story, while unique, resonates with many others across Canada and around the world. Hopes include good jobs, improved well-being, and economic growth. Concerns range from environmental degradation and changes to ways of life, to increased cost of living and the inequitable distribution of benefits. In resource-rich regions such as northern British Columbia, the next major project is expected to be just around the corner, and many people feel they should prepare for it, for better or worse. Meanwhile, community members live with the consequences of the years of buzz surrounding a project that may or may not ultimately happen.

Rather than providing an in-depth analysis of Kitimat's situation, we discussed the workshop to draw attention to what people may experience, talk about, and respond to during the buzz phase. We organized these impacts around six provisional themes: hope and fatigue; material and social changes; distribution of impacts; affective impacts; imagined futures; and what is left unsaid. We used the discussion of these themes to generate a series of questions—again, illustrative rather than exhaustive—to ask of this distinct time period in present and future research.

The impacts of the buzz phase are always deeply local and heterogeneous. Understanding what is at stake during and what is produced by the buzz of resource extraction requires empirical studies of specific projects and places. It requires engaging with plans that never come to fruition as well as those that do. It requires seeing projects not only as harbingers of future development, but also as fantasies that may never come to pass.

Once something is named, it can become an object of analysis, of critique, of activism, and of policy. By naming the buzz phase, we suggest understanding it, studying it, and mobilizing around it are important. Major projects that extract natural resources—wells, mines, dams, and more—hinge on imagined futures. In the years of preparation to bring such a project into operation, tangible and intangible changes are experienced by individuals, families, and communities. This is what the buzz concept attempts to get at.

Imaginations of resource extraction also shape the ways futures are conceived based on a particular type of energy and resource regime, to the exclusion of others. When a large-scale project is proposed, it creates a framework of the possible, if not inevitable. Alternative futures become less probable, as stakeholder meetings, community division, land speculation, financial implosions, dispossession and displacement, violence, and all the rest narrow and structure the field of imaginable futures.

The buzz is rendered invisible in part by the seemingly inexorable inertia of insatiable natural resource extraction that is currently threatening our planet. In the context of the ongoing buzz of resource development, how can we begin to imagine futures otherwise? How can we bring about a different future, one which does not rely on systematically oppressive policies that ensure benefits for some groups and hardships for others, while undermining the very environmental systems we depend upon? Thinking about the buzz phase raises many questions, which are difficult to answer at present. But if ideas can be seeds for changes in action, we hope the idea of the buzz phase of resource extraction can help bring meaningful change for the better.

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