

**THE PROSPECT OF PERMACULTURE AS PART OF
GASTRONOMIC TOURISM IN NEW ZEALAND.**

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ABSTRACT

With the increasing environmental concerns of deforestation, soil degradation, ecological imbalance, and global warming caused by food production, it has become a major concern among academics and the gastronomy industry to create sustainable food production practices. This research therefore set out to explore the aspects of gastronomic tourism that affect earth care.

The research explored the prospects of permaculture as a part of gastronomic tourism in New Zealand by positioning the permaculture system within the agri-food production industry and agri-food gastronomic tourism sector. This qualitative case study research used data from secondary sources, which were analysed using thematic content analysis. The findings suggested that, gastronomic tourism has its roots in agri-food and agri-food tourism with restaurants working as primary gastronomic tourism facilitators, promoting regional agri-food gastronomic tourism. Permaculture farms were recognized as quality food growers by gastronomic tourism facilitators such as restaurants, and worked as part of agri-food tourism. Their sustainable characteristics can therefore be utilised as a regenerative tourism product.

This research suggests that permaculture has the potential to be employed within the agri-food tourism industry of New Zealand. The holistic nature of permaculture can be utilised as an attribute of the sustainable tourism industry in New Zealand. This research provides a baseline for future gastronomy research in New Zealand focusing on permaculture practices, to create a sustainable tourism future and give New Zealand a unique gastronomic tourism identity.

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ATTESTATION OF AUTHORSHIP

“I hereby declare that this dissertation is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor materials which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning”.

Peter Bright Rodrigues

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Numerous under-developed and developing countries have the land and potential ecosystems to promote agriculture and sub-sectors of agriculture as tourism products and develop gastronomic tourism, but they lack an efficient supporting management system and knowledge. I would therefore like to dedicate my study's findings to their cause, hope I have contributed in some way by generating research-based solutions for the gastronomy sectors of these countries.

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CHAPTER 1: INTRODUCTION

1.1. CHAPTER OVERVIEW

This chapter introduces the study by presenting the research background and introducing the research objectives and questions. The chapter also provides a visual model of the research structure.

1.2. INTRODUCTION

This research explores the state of agri-food gastronomic tourism in New Zealand (NZ), by analysing the relationship between agri-food gastronomic tourism and permaculture and examining how permaculture may fit as an attraction within gastronomic tourism in New Zealand. It also explores whether permaculture is aligned with the goals of sustainable gastronomic tourism of New Zealand.

1.3. RESEARCH BACKGROUND

Brillat- Savarin's gastronomical brainchild "*The physiology of taste*" (Brillat-Savarin, 1970 / 1825) installed "food" as a discernible object in the history of gastronomy. Food is an element of cultural identity, signifying social bonding and symbolizing the environmental richness that the land has to offer (Slocum & Curtis, 2018). Consequently, Roberts and Hall (2001) believed that, choices between tourism destinations and local food culture were closely linked, as wherever there is a tourism destination, there may be potential for local foods to play a role in developing that tourism destination (Berno, 2017b).

In contemporary tourism globally, food has become a major tourist attraction, developing into a type of tourism known as "gastronomic tourism" (Dixit, 2019); a small part of gastronomic tourism focuses on environmental, and ecological friendly food production systems (Flavia et al., 2019).

Gastronomic tourism can be sustained by agri-food production, cultural practices and the culinary practices of a country. According to Veeck et al. (2016), small and medium-sized farms are the benefactors of the growing agri-tourism sector and contribute to environmentally-friendly food production systems.

Health consciousness within the tourist community has increased health-related tourism, with tourists visiting food production facilities such as organic farms, and farmers' markets (Chang, 2017). Stanley and Stanley (2015) observed that agri-food gastronomic tourism provides opportunities for a healthy, sustainable, tourism experience as it supports the ideas of healthy eating, helping farms to become tourist destinations to expand knowledge of how food is produced and where it comes from, showcasing the origins of food.

Improving the ecologically-friendly food production system has influenced the relatively small gastronomic tourism sector. For example, Hall and Gössling (2016) identified that, a blend of sustainable farming and tourism can improve the overall gastronomic scenery, because recent studies showed that “food has also emerged as an important topic in relation to the environment [...] people aware of the relationship between the environment and the quality and safety of food” (Nilsson, 2012, p. 189). The tourism sector of New Zealand is committed to creating a sustainable platform by “enhancing natural environment and biodiversity” (Tourism Industry Aotearoa [TIA], 2017, p. 1); its primary goal is to restore the ecosystem and reduce New Zealand's carbon footprint.

Polat et al. (2008, p. 36) explained that the implementation of *permaculture* is a “concept, which was first introduced by Bill Mollison and David Holmgren, to support sustainable development” (p. 36). What is not yet clear however, is the role of permaculture in the maintenance of the environment, the economy, the agri-food industry, and gastronomic and tourism practices in New Zealand. Moreover, previous studies of permaculture have not been acknowledged by academics as a part of agri-food gastronomic tourism of New Zealand, and little is currently known about permaculture in agri-food gastronomic tourism. This research therefore explores permaculture as a part of the agri-food gastronomic tourism industry in New Zealand.

1.4. SIGNIFICANCE OF THE RESEARCH

Understanding the link between permaculture and agri-food gastronomic tourism will help extend the field of gastronomic tourism. Permaculture aims to be a sustainable way of growing food, and understanding unique food cultures through agriculture and tourism is a sector within the wider field of gastronomic tourism (Nesterchuk et al., 2020). Recent studies have suggested that, permaculture as a part of agri-food gastronomic tourism or tourism in general has been widely studied around the world (Ip-Soo-Ching & Veerapa, 2013; Lia, 2015; von Holstein, 2013). It is hoped that this research will contribute to a deeper understating of the potential role of permaculture, as an aspect of agri-food in the gastronomic tourism industry of New Zealand.

In 2019, New Zealand's tourism sector generated NZD 40.9 billion, an increase of 8.1% in New Zealand's Gross Domestic Product (Statistics NZ, 2019). New Zealand prides itself on its natural environment and unique panoramas, with "its most prominent [landscape] feature being that of agriculture" (Berno, 2017a, p. 159). New Zealand values its natural environment and natural beauty and is dedicated to upholding environmental ethical practices through its agricultural systems and promoting gastronomic tourism through local culture and local cuisine using locally grown produces (Berno, 2017b; Department of Conservation [DOC], 2020; Ministry for the Environment [MFE], 2001).

As Berno (2017b) stated:

"You put something in the land and you care for it, you build a community around it, you build a village then you shape your landscape, then you shape your culture, your society and you start establishing an economy" (p. 1).

Despite the New Zealand Government's approaches to tourism growth defined by the "four pillars underlying the Government's tourism strategy" (see Parliamentary Commissioner for the Environment [PCE], 2019, p. 80), it has been reported that increases in tourism have impacted the natural environment of New Zealand over generations of a tourism-based economy (Parliamentary Commissioner for the Environment [PCE], 2019). Major issues such as "visitor density and loss of natural quiet, water quality degradation, solid waste generation, biodiversity loss and biosecurity risk"

(Parliamentary Commissioner for the Environment [PCE], 2019, p. 7) have been caused by tourism in various areas of New Zealand (PCE, 2019).

Furthermore, alongside the positive effects of tourism, significant negative effects have been identified by previous research. For example, some localities in New Zealand have been deserted by the residents and eventually taken over by external proprietors, leading to changes in the use of the landscape (Parliamentary Commissioner for the Environment [PCE], 2019, pp, 20-22). Also, soil erosion, and soil contamination has occurred, due to increased waste at overcrowded tourist sites, leading to imbalances in the overall ecosystem (Parliamentary Commissioner for the Environment [PCE], 2019, pp, 20-22).

However, the practice of permaculture could be an opportunity for sustainable practice in agriculture and food production systems (Mburia, 2016) generating tourism opportunities and economic gains (Ip-Soo-Ching & Veerapa, 2013; Saravitali, 2012; von Holstein, 2013). This offers the possibility of representing the food culture of the land through gastronomic tourism (Berno, 2017), to help protect the natural beauty of New Zealand.

This study aimed to explore the potential of permaculture. The *study of permaculture* is the study of an holistic system that includes agriculture and the lifestyle of those in a particular location (Mollison and Holmgren, 1990). It therefore has the potential to play a role in agri-food gastronomic tourism at a particular tourist location (Becken, 2020). This research therefore explored the potential of permaculture in agri-food gastronomic tourism of New Zealand. This research, which includes a thematic understanding of the literature and data, explored this statement in relation to the unique identity of New Zealand's gastronomic tourism.

1.5. RESEARCH OBJECTIVES AND RESEARCH QUESTIONS

The primary objective of this case study research was to link permaculture practices and the gastronomic tourism sector in New Zealand through a track of agri-food and tourism. In this research the word “farm” is widely used in a broad sense, utilizing the term as a part and product of agri-food tourism (see Sznajder et al., 2009). Also, the term “restaurant” is utilized to address the gastronomic tourism culture (see Bertan, 2020; Spang, 2001).

The primary research question was: can permaculture be utilized as an attribute of agri-food gastronomic tourism in New Zealand?

To answer this primary question; supporting questions were established as follows:

1. What is the overall profile of gastronomic tourism in New Zealand and what role does agri-food tourism play in gastronomic tourism in New Zealand?
2. What is permaculture, and what does it look like in New Zealand?
3. How could permaculture tourism be positioned within the broader context of sustainable tourism in New Zealand?

This dissertation employs three chapters of literature reviews to address of the aim of the research and to answer the research questions. These three chapters were guided by the following objectives:

- * Explore the agri-food culture of New Zealand through the lens of gastronomy to understand the relation between agri-food tourism and gastronomic tourism (Research Question 1).
- * Explore permaculture in relation to the research aim by identifying the relationship between permaculture and tourism and agri-food gastronomic tourism (Research Question 2).
- * Explore the possibilities for permaculture as a tourism product within New Zealand's sustainable tourism (Research Question 3).

After completing these objectives, the conclusions are presented, in which the research findings are examined and discussed.

1.6. DISSERTATION STRUCTURE

The dissertation comprises seven chapters as follows:

Chapter 1: Introduction: Presents the research background, significance of the research, aims and objectives of the study.

Chapter 2. Methodology: Discusses the research methodology and approach, data collection and the data analysis process.

Chapter 3: Agri-food gastronomic tourism: Contextualizes agri-food tourism and gastronomic tourism and analyses New Zealand's agri-food gastronomic tourism industry. It also summarizes the key findings of the chapter into themes and links these to the next chapter.

Chapter 4: Permaculture in agri-food and gastronomic tourism: Introduces permaculture and links permaculture to agri-food gastronomic tourism in New Zealand. This chapter introduces three establishments used to explore the opportunities and relationships of permaculture within gastronomic tourism, then provides a summary of key findings and themes, linking these to the next chapter.

Chapter 5: Sustainable tourism in New Zealand: Contextualizes sustainable tourism generally and in New Zealand and explores the possibilities of permaculture in relation to sustainable tourism. The chapter concludes with a summary of the key findings.

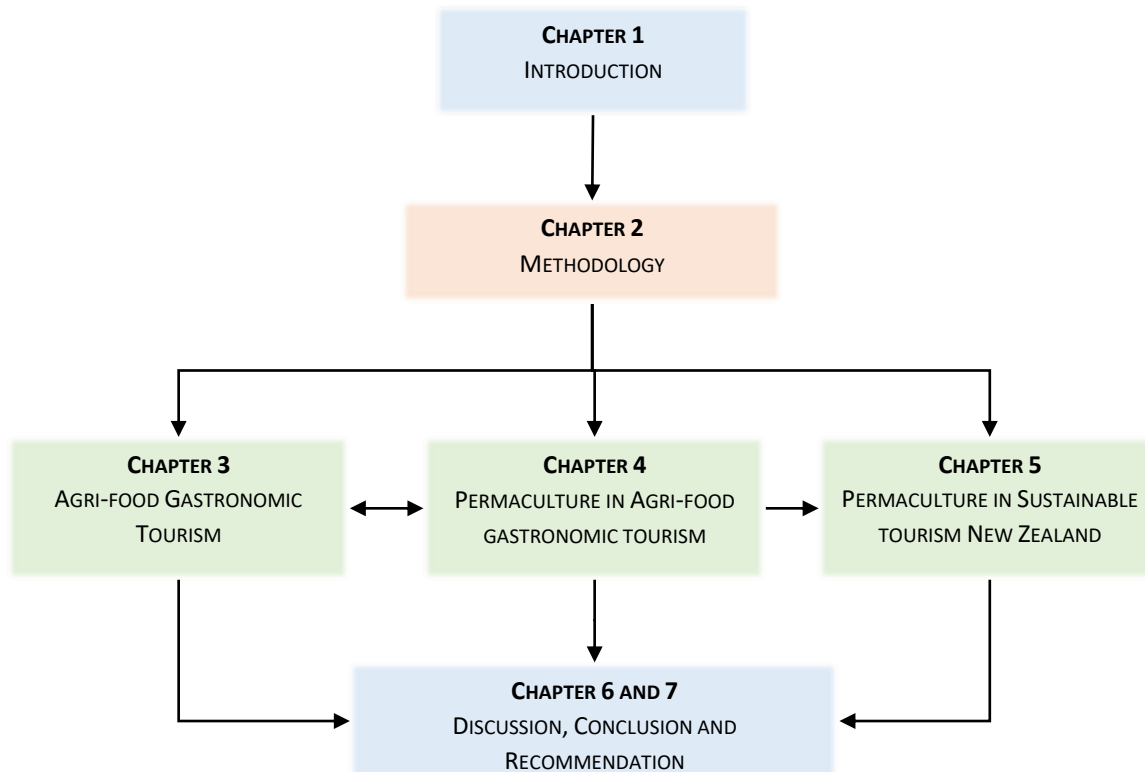
Chapter 6: Theme Discussion: Discusses the research findings and themes and summarizes key findings.

Chapter 7: Conclusion: Discusses the key findings of the research and concludes with the research outcomes and an evaluation of the primary objective of the research; recommends the possible scope of future research.

This structure is presented in Figure 1 to provide a visual understanding of the research.

FIGURE 1:

Dissertation structure.



CHAPTER 2: METHODOLOGY

2.1. CHAPTER OVERVIEW

This chapter clarifies the philosophical and theoretical conventions underpinning this research. It also explains the method and methodology used for obtaining, analysing and presenting the data collected to answer the primary research question (see Creswell, 2009). The purpose of this study was to explore and understand the possible links and prospects of permaculture as a niche for further development of the agri-food and gastronomic tourism sector.

2.2. RESEARCH PURPOSE

In many countries, permaculture enterprises are already a part of their agri-food tourism industry (Ecological Farmers' Association of Ontario, 2020; Hathaway, 2016; Mburia, 2016). However, permaculture has not been studied within the agri-food gastronomic tourism discipline in New Zealand and there is no academic literature that positions permaculture as a part of New Zealand's agri-food gastronomic tourism industry. Therefore, it is important to identify the prospects of permaculture so that it can be utilized as an attribute of agri-food gastronomic tourism. Accordingly, this research explores agri-food tourism, gastronomic tourism and permaculture activities, using data from secondary sources.

2.3. RESEARCH APPROACH

According to Gray (2018, as cited in Rodrigues, 2020), "research is a logical, planned and structured attempt of study" (p. 1) of contemporary happenings or specific interests. Research hypotheses and interests are built upon various arguments, often known as "reasoning" (Gray, 2018). Primarily there are two types reasonings: the first is broadly known as "inductive reasoning" and the second as "deductive reasoning" (Gray, 2004).

As O'Leary (2007) defined, "deductive reasoning moves from general theory down to particular examples, while inductive reasoning moves from particular examples up to general theory" (p. 57). It is generally accepted that research sometimes uses both inductive and deductive reasoning in a sequential manner (O'Leary, 2007). Another type of reasoning is known as "abductive reasoning". Walton (2014) defined *abductive reasoning* as moving from collected data to a hypothesis that elucidates the data; abductive reasoning moves between inductive and deductive reasoning (Kaushik & Walsh, 2019). Kaushik and Walsh (2019) explained that abductive reasoning has been linked with pragmatism, thus enabling the researcher to be dynamic while generating data and theories. This research used abductive reasoning to understand and interpret data collected from various secondary sources such as those for published articles, which were gathered from a number of domains. This allowed the researcher to move freely with an unrestricted philosophical worldview (see Kaushik & Walsh, 2019).

A research paradigm reveals the researcher's views about the world that she/he is living in (Lather, 2011) and helps them choose the research procedure. This includes the theoretical background and philosophical concepts that the researcher considers appropriate to conducting the research at hand (Guba & Lincoln, 1994). Kivunja and Kuyini (2017) defined, paradigm as a "philosophical way of thinking" (p. 26) in academic studies. Paradigms comprise four fundamentals: "ontology, epistemology, axiology and methodology" (Kivunja & Kuyini, 2017, p. 26).

"Ontology" is the logical foundation of the research that considers and specifies that all assertions are actual (Kivunja & Kuyini, 2017; Longhofer et al., 2013). For example, a pragmatic paradigm promotes a non-singular reality ontology, which considers that there are multiple realities; and researchers have the freedom to interpret reality in accordance with the research's distinctiveness (Kivunja & Kuyini, 2017); to study a contemporary phenomenon, this researcher employed a similar ontological view of the world. The epistemology on the other hand, defines the information with clarifications (Longhofer et al., 2013).

The four commonly utilized academic research paradigms are interpretivist, positivist, critical, and pragmatic paradigms (Guba & Lincoln, 1994; Kivunja & Kuyini, 2017; Lather,

2011). An interpretivist paradigm (also known as a “constructivist paradigm”) refers to a method in which the researcher tries to “understand the viewpoint of the subject being observed, rather than the viewpoint of the observer/researcher” (Kivunja & Kuyini, 2017, p. 33). On the other hand, a positivist paradigm has been defined as the researcher’s philosophical view “grounded in scientific method of investigation [and] involves a process of experimentation that is used to explore observations and answer questions” (Kivunja & Kuyini, 2017, p. 30). The critical paradigm (also known as a “transformative paradigm”) has been defined as a research paradigm that positions itself in “social justice issues and seeks to address the political, social and economic issues, which lead to social oppression, conflict and powers struggles” (Kivunja & Kuyini, 2017, p. 35).

The pragmatic paradigm refers to “a worldview that focuses on what works rather than what might be considered absolutely and objectively true or real” (Frey, 2018, p. 1287). “This paradigm arose among philosophers who argued that it was not possible to access the truth about the real world solely by virtue of a single scientific method” (Kivunja & Kuyini, 2017, p. 35) as may be used in the positivist paradigm. Characteristics of a pragmatic paradigm are:

“Adaptation of a worldview that allows for a research design and methodologies that were best suited to the purpose of the study. Utilizing lines of action that are best suited to studying the phenomenon being investigated. Choice of research methods depending on the purpose of the research. A search for useful points of connection within the research project that facilitate understanding of the situation” (Kivunja & Kuyini, 2017, p. 36).

In previous studies, the pragmatic paradigm has been utilized to learn about contemporary development, and to gather and analyse qualitative data for case study research (Kivunja & Kuyini, 2017). Similarly, this research utilized abductive reasoning associated with the pragmatic paradigm to conduct this study with an unrestricted worldview, and to explore contemporary gastronomic tourism activities using a case study methodology (see Kivunja & Kuyini, 2017). The significant relationship between paradigms and a methodology is that these have a strong effect on the research “questions, data collection instruments and data collection procedures” (Kivunja & Kuyini, 2017, p. 36), for exploring, analysing and answering the research questions (Longhofer et al., 2013; Yazan, 2015).

This research utilized a qualitative case study methodology to meet the research aim (see Yazan, 2015). The case study was developed using literature and data related to agri-food tourism, gastronomic tourism and permaculture. The data are presented in the literature reviews and analysed in three separate chapters to explore the opportunities for permaculture in agri-food gastronomic tourism. The advantage of a case study methodology, is that it is an effective way of evaluating and understanding a phenomenon (Mills et al., 2012; Veal, 2018).

To analyse the data a thematic analysis approach was undertaken (see Nowell et al., 2017). A thematic analysis approach was selected because it allows researchers to analyse qualitative (primary and secondary) data, by generating codes and combining these to develop themes within the data (University of Auckland, n.d., p. 1) to answer the research questions. Braun and Clarke (2006) stated that, “thematic analysis requires [not so much] detailed theoretical and technological [understandings, so] it offers a more accessible form of analysis” (pp. 8–9). An advantage of qualitative data analysis is that it is considered simple. Thematic analysis is exceedingly adaptable and can be utilised for different types of research to provide rich and comprehensive sets of data (Braun & Clarke, 2006).

2.4. CASE STUDY: THEORETICAL BACKGROUND

Case study methods have been utilized in tourism research to explore and explain the contemporary social and cultural practices that reflect on real-life situations and stories of organizations (Beeton, 2005; Durbarry, 2017; Veal, 2018). As, Steinmetz (2010) stated, previous research “links between food and tourism (in significance to gastronomic tourism) have been based on case studies providing insight into countries or regions that have successfully implemented [...] tourism strategies [and] enables a holistic view” (pp. 81–82). Similarly, this research employs a case study to establish the relationship between permaculture and agri-food gastronomic tourism.

A major advantage of the case study method is that, it does “tend to be much more specific in focus [and] can explore many themes and subjects [...] organizations or contexts [...] and the relationships between different sectors of an organization or

between organizations” (Gray, 2018, p. 123). The case study approach was the preferred method for this research because it is also simple to deliver (see Veal, 2018) and tends to enable practical inquiries into current events and activities. The data that the case study uses can be gathered from numerous secondary sources (Taylor, 2017; Yin, 2009). This research used data from secondary sources in the public domain as it was appropriate to use these types of sources (see Reddy & Agrawal, 2012). Another advantage of exercising this method in this study, is that a case study is particularly beneficial for studying “small numbers of social entities or situations [...] and developing an holistic description” (Easton, 2010, p. 119).

However, the qualitative case study research method has its limitations. For example, a researcher can gather data from secondary sources and employ them as he or she thinks fitting, which can be considered unethical by other researchers (Guba and Lincoln, 1981). According to Hamel, et al. (2011), the

case study [approach] has basically been faulted for its lack of representativeness [and] lack of rigor in the collection, construction, and analysis of the empirical materials that give rise to the study. This lack of rigor is linked to the problem of bias. Such bias is introduced by the subjectivity of the researcher (p. 22).

This researcher had a thorough understanding of the advantages and limitations of case study research method. In this case study the researcher could produce only one example of a permaculture farm that was a part of an agri-food producer Pakaraka Permaculture and two restaurants representing as gastronomic tourism facilitators Orphan’s Kitchen and Pasture which were based on a story from Stone Soup Syndicate magazine, called “Good things grow” (Stone soup, 2018, p. 1). This limited information on permaculture practices in New Zealand and the link to gastronomic tourism in secondary sources, limited the research findings. This research explored the stories of New Zealand based permaculture organizations and their farming practices and tourism activities using literature found from secondary sources such as the world wide web search, and that broadly addressed New Zealand’s permaculture situation.

2.5. DATA COLLECTION AND SAMPLE

The data collection process is determined by the research type and objectives of the research (Hox & Boeije, 2005). Malhotra et al. (2017) provided an insight into secondary data use, noting that it is easier to gather data from secondary sources to meet the research aims and objectives, and secondary data tend to be available in published domains that are constantly updated by users and researchers. Furthermore, an advantage of collecting secondary data, is that it has already been accumulated by researchers in numerous studies for other purposes (Allen, 2017; Malhotra et al., 2017). This research used data collected from secondary sources that were in the public domain, because it was easier and less time consuming than a primary data collection process (see Allen, 2017). According to Allen (2017), the benefits of using secondary data are its accessibility and time saving features cost reduction and its ability to generate new insights from previous analyse. Digital databases are interconnected, so access to literature through digital databases has improved the data collection process for secondary data. Because digital data bases are interconnected, secondary data collection is less costly than is primary data collection (Allen, 2017). Shared digital databases have brought the freedom of cross-cultural comparisons and enabled researchers to make new discoveries from previously analysed data (Allen, 2017).s

2.5.1. PROCEDURE OF DATA COLLECTION

Prior to data collection, qualitative data were retrieved using a “data structure [meaning] there are several files that are connected on the basis of predefined” compositions (Hox & Boeije, 2005, p. 597). Focusing on the key feature of this research, i.e., permaculture as a gastronomic niche in New Zealand’s tourism, keywords were used to search for data in digital databases (see Appendix A) to answer the questions presented in the previous chapter (see Allen, 2017; Hox & Boeije, 2005). By analysing comments from interviews conducted by Stone Soup Syndicate magazine (Stone Soup, 2018), data from published articles collected from organizations (e.g. permaculture farms and restaurants), official

websites, online magazine articles and academic literature, were contextualized and presented as findings (see Hox & Boeije, 2005). A detailed list of data sources is presented in Appendix A.2.

Data were collected in three steps. Firstly, data sources were identified using a world wide web search (e.g. Google Scholar search, EBSCO, JSTOR, ScienceDirect, CABI Leisure Tourism) using keywords related to the research questions. Data searches were undertaken in various secondary sources (indicated in Appendix A.2) looking for literature related to permaculture, gastronomic tourism and tourism in general, agri-food, agri-tourism, research methods, and methodology. Also, a world wide web on search engines such as Google was used to identify permaculture farms and permaculture related activities in New Zealand. The world wide web search provided a number of websites of permaculture organizations and permaculture related organizations practising and promoting permaculture, from different perspectives of tourism activities in New Zealand. A list of permaculture farms and permaculture related organizations in New Zealand is presented in Appendix C. This list of permaculture related organizations was produced from a “Google search and organization websites as per this research interest of exploring the prospects of permaculture in gastronomic tourism. However, the literature found from the secondary sources indicated in Appendix A.2 did not provide enough evidence linking permaculture activities with gastronomic tourism in New Zealand, and this gap between permaculture practices and gastronomic tourism needs further studies addressing New Zealand’s permaculture and tourism practice.

Secondly, secondary data were collected appropriate to the research purpose, and thirdly, data were assessed as per the chosen qualitative research method and methodology (see Hox & Boeije, 2005).

Permaculture has been recognised as a fairly novel and innovative movement within agri-food tourism as a part of the broader gastronomic tourism culture of New Zealand. However, the data and literature were considerably limited due to the nature of permaculture’s involvement in this country’s agri-food sector. Data were available on organizations’ official worldwide websites; permaculture related organizations such as

permaculture farms, permaculture institutions and restaurants were identified as having data available on their organizational websites.

Furthermore, to explore the potential of permaculture farms as agri-food providers and restaurants as gastronomic tourism providers the stories of three different organizations are presented in Chapter 4. This research used a “type of sampling method that is easier and cheaper to access known as non-probability sampling technique, also known as purposive sampling” (McCombes, 2020a, p. 1). The three organizations were purposefully selected. One organisation recommended the research to another using the snowball sampling method (see McCombes, 2020a). The stories of one permaculture practitioner (a farm and garden market) and two restaurants were analysed. These three establishments were chosen because they had business ties, meaning the farm provided fresh produce to the restaurants and the restaurants recognized that the food was supplied by a permaculture farm. The stories are presented and discussed in Chapter 4; the establishments were:

- Pakaraka Permaculture: Local food grower, agritourism provider and agri-food supplier for restaurants farmed by Niva and Yotam Kay (Pakaraka Farm, 2020).
- Orphans Kitchen: Gourmet restaurant, a sustainable gastronomic icon owned by two friends Tom Hishon and Josh Helm (Orphans Kitchen, n.d.).
- Pasture: Multiple award-winning gourmet restaurant owned by award winning chef owner Ed Verner (Pasture, n.d.).

Themes were identified by analysing their organizational websites and are discussed in Chapter 6.

2.6. DATA ANALYSIS

After identifying the sample of the study, secondary data were collected from articles and other literature (see Appendix A.2), following which, the data were analysed (see Gillham, 2000; Windle, 2010). Data analysis processes are central to answering research questions and describe the methods researcher uses to generate the research findings.

The analysis methods also help to summarize chapter findings that are generally presented at the end of each chapter (Gillham, 2000).

In this case study research, data were analysed using a qualitative thematic analysis approach known as “textual analysis” to familiarize the researcher with the commonly used terms and subjects frequently emerging from the data (Caulfield, 2020b). *Textual analysis* is a broad term for various methods used to describe, interpret and understand texts. “All kinds of information can be gleaned from a text, subtext and symbolism” (Caulfield, 2020a, para. 1) In this research, data were similarly analysed from the text and subtext to understand the meaning of the data so that the researcher could answer the research questions and present the research findings.

Guest et al. (2012, p. 7) stated that, a content-driven thematic analysis approach makes it possible for a researcher to carefully evaluate the “keywords, trends, themes or ideas in the data that will help outline the analysis, before any analysis takes place.” Data were coded in text forms that were used as labels to define the textual contents of this research (see Caulfield, 2020a). These codes were positioned in groups according to their context and the groups of codes were then labelled or named which was later useful for identifying themes (University of Auckland, n.d.; Caulfield, 2020a). Themes were generated by merging codes according to their pattern (see Caulfield, 2020b). For example, codes presented at the end of Chapter 3 such as: “culinary”, “culture”, “food” and “gastronomy” were put together in a group or theme and labelled as “gastronomic”. Theme discussions are presented in Chapter 6. At the end of each chapter the themes are presented and further discussed in relation to the research findings. The pragmatic paradigm and its principles allow researchers to be dynamic while generating data and theories and acknowledge that there are multiple realities and what is working and is present is the pragmatic way of thinking (Kivunja & Kuyini, 2017). As stated earlier, this research adopted the pragmatic paradigm to explore and conducted this study with an unrestricted worldview that protected the originality of the data and presented the findings with consistency, because findings are by definition subjective and need to be accurate and accessible to other researchers (see Kivunja & Kuyini, 2017).

CHAPTER 3: AGRI-FOOD GASTRONOMIC TOURISM

3.1. INTRODUCTION

Literature on gastronomy has highlighted that, agriculture is considered to be a foundation for gastronomic tourism and can contribute to its success (e.g. Berno et al., 2020; Flavia et al., 2019; Poole, 2013). This chapter employs gastronomic insights and theories to explore agri-food gastronomic tourism and discuss various disciplines of food tourism related subjects such as agri-food tourism and, gastronomic tourism and their role in the tourism sector of New Zealand.

3.2. GASTRONOMY

Gastronomy is the study of the combined human disciplines of agriculture, culture, environment, tourism, media, art etc. (Sormaz et al., 2016). Bellini et al. (2018) extended the concept of gastronomy into the study of social norms, practices of dining, and antiquity that influences the art and science of food cultivation, preparation, and dining experiences. Hence, there is a variety of agri-food cultivation approaches which promote agri-food production-based tourism as a factor in gastronomy (Sidali et al., 2011).

Thomé-Ortiz (2015) explained that, agri-food and agri-food tourism are symbols of the materialistic culture of a society.

Agri-food tourism is an innovative way of social metabolism of food, involving material and symbolic aspects, which adds value to traditional productive activities through the incorporation of non-agricultural economic activities (Thomé-Ortiz, 2015, p. 1373).

Research investigating the factors associated with gastronomic practices reveals a variety of food cultivation approaches, and includes agri-food production-based tourism (see Dixit, 2019). This research is closely related to the present research's objectives, as this research underpins agri-food tourism activities as a part of gastronomic tourism activities.

Previous studies have argued that gastronomy is not only the study of simple eating or food in general, but rather it is much more than just a study of food; it is study of culture, agriculture, society, and tourism (Berno et al., 2020). Callot (2004 as cited in Neill et al., 2017, p. 4) proposed that,

...gastronomy is not preoccupied with the abundance of quality food, or solely with the health benefits of food, but rather facilitates the promotion of a 'sensible' model for food, incorporating traditions, international fashions and trends, nutrition and health benefits of food, and the idea of eating for leisure.

More recently, attention has focused on the delivery of new understandings of gastronomic studies, for example, on destination development, regional or local food tourism, innovative food design, and media studies (Mielby & Frøst, 2010; J. H. Nilsson et al., 2011). However, in this research, gastronomy and gastronomic practice link to agri-food tourism, permaculture practice, and sustainable tourism practices.

3.3. AGRIFOOD TOURISM

Different definitions exist in the literature for agri-food tourism. According to Sznajder et al. (2009), various agricultural facilities have worked alongside tourism industries for many centuries, and are cherished as old tourism destinations for international tourists and locals alike. A more focused explanation of *agri-tourism* was offered by Sznajder et al. (2009, p. 5):

Agri-tourism is not the only area within tourism. Classifications yield many other distinguished fields, such as ecotourism, garden tourism, guest ranch, safari, village tourism, wine tourism, dairy tourism and of course rural tourism, which are related to agriculture, forestry, food processing.

New Zealand's long history of dairy farm tourism, garden tourism and wine tourism (Go Rentals, 2019; New Zealand Herald, 2018) has supported New Zealand's agri-food and gastronomic tourism industry (Ministry for the Environment [MFE], 2001). Much of the current literature on agri-food tourism pays attention to the involvement of restaurants and similar establishments as deeply connected with agri-food. For example, Kuchiki et al. (2017) observed that there is no specific model that explains the boundaries of tourism industry, which "includes restaurants, hotels, transportation and confectionary who

produces souvenirs [...] and agriculture in case of agricultural products (agri-food) and agricultural tourism (agri-tourism)” (pp. 15 - 16). Restaurants have had an important role in linking the agri-food industry with gastronomic tourism (Torres, 2003). Previous gastronomic research has suggested that restaurants are becoming primary contributors for promoting local ingredients and local cuisines (Dhora & Dionizi, 2014). When tourists are traveling, they learn about food culture and local ingredients (Berno, 2017b). Tourists’ preferences in food and beverages are unique and a restaurant is the place where they prefer to dine; this act of dining is not just for eating, but to enjoy a gastronomic experience of food culture (Bertan, 2020). The role of restaurants in promoting agri-food tourism (McGehee & Kim, 2004) and through this promoting gastronomic tourism increases daily (Dhora & Dionizi, 2014). In this research, the role of restaurants is similarly understood as an agri-food gastronomic tourism facilitator (see Bertan, 2020; McGehee & Kim, 2004).

There is a large volume of studies describing the role of agri-food tourism. According to Thomé-Ortiz (2015, p. 1), “agri-food tourism is a form of social ownership of the emblematic-food and a farm production restructuring process [...] whose common denominator is the link between food (gastronomic) [and] tourism.” Similarly, Miller et al. (2010 as cited in Ackovska et al., 2015) stated that, agri-tourism “is [a] business or activity that attracts visitors on a farm [...] to enjoy [in] agricultural products and natural surroundings [and] regional agri-tourism is assumed to be closely related to gastronomic tourism” (pp. 49–50).

Agri-food tourism is derived from agricultural tourism and promotes food products produced on farms as tourism products. Agri-food tourism not only provides opportunities for farm visits but also plays the role of a food supplier for local restaurants and connects to regional gastronomic tourism. This link defines *agri-food tourism* as a part of regional gastronomic tourism. Therefore, this research includes the term “agri-food tourism” to denote the various notions that involve agri-food tourism activities and particular tourism products, and views New Zealand’s agri-food tourism as a part of New Zealand’s gastronomic tourism.

3.4. GASTRONOMIC TOURISM

The primary objective of this study was to explore the potential of permaculture attractions in New Zealand's agri-food tourism industry by analysing the connections between permaculture and agri-food tourism within the gastronomic tourism industry. Therefore, this section about gastronomic tourism is discussed as part of the broader tourism industry that hosts agri-food tourism that was discussed earlier in this chapter.

Long (2013 as cited in Polat & Aktaş-Polat, 2020) advocated that until the 1990s, food and food products were not recognized as tourism products by the tourism industry. However, gastronomic study and practice has expanded culinary knowledge within the food industry, and produced food or gastronomic tourism (World Tourism Organization, 2003).

Many researchers have investigated gastronomic tourism and understood it is as a complex network of different activities related to human food production or agriculture and culinary culture and society, and eating for leisure (e.g. Berno & Fusté-Forné, 2019; Dixit, 2019; Harrington & Ottenbacher, 2010; Levi, 2015; Slocum & Curtis, 2018). According to Bessièrè et al. (1998 as cited in Dixit, 2019) "the roots of gastronomic tourism lay in agriculture, culture and tourism" (p. 16). Most studies have indicated that, the strength of gastronomic tourism may vary according to the agriculture of the country, so it needs to be explored within the context of New Zealand's particular tourism practices (Berno, 2017a). A small number of tourist groups focused on regional gastronomic tourism have emerged in recent years; to them, food grown in a particular area symbolizes the taste and culinary culture of that area, where they find it authentic to that region (Flavia et al., 2019). It has been argued by other researchers as Berno (2017b) stated, that when tourists visit safari parks or wineries or other places, they should be encouraged to taste the fresh farm produce, wines, freshly caught fish, and cheese from that specific area or region, grown in that specific location, not only to taste the value of nature but also to enjoy the gastronomic hospitality of that area. It is the responsibility of a host country to display its agri-food products to improve the gastronomic tourism industry (Berno, 2017a, 2017c; Berno et al., 2020).

In addition, Flavia et al. (2019) stated that, “gastronomy is establishing itself as a key element in diversifying and supporting the economic and touristic development of our society” (p. 1). New Zealand has its particular segment of consumers in the gastronomic sector as well as in the tourism sector, because while tourists are visiting a place, they eat during their travel (Ministry for Primary Industries [MPI], 2018). Therefore agri-food and gastronomic tourism are closely linked (Ackovska et al., 2015; Berno, 2017b; Flavia et al., 2019; Nesterchuk et al., 2020; Su, 2015).

Bertan (2020) argued that food production sectors such as farms and agri-food facilities, local farmers markets, and the farmers’ community directly accountable for cultivation, are influenced by service providers such as gastropubs, gastro-bars and similar restaurant facilities. There is a link between specialties and industries, as farms are part of food production as well as of agri-food tourism service provider communities (Sznajder et al., 2009) and are connected to restaurants in the broader culinary tourism community (Harrington & Ottenbacher, 2010; Veeck et al., 2016). Therefore, restaurants should be considered as part of agri-food tourism because food produced on farms is supplied to the restaurants where tourists dine and while dining they are familiarizing themselves with local produce through local cuisine (Bertan, 2020; Dhora & Dionizi, 2014; McGehee & Kim, 2004).

In recent years, New Zealand’s agri-food sector has been populated by numbers of permaculture farms and is becoming a flourishing industry (“Getting started with Permaculture in New Zealand”, 2019), and therefore should be utilized as having specialists in their field from different production aspects. Some recent examples of permaculture farms working alongside restaurants show that permaculture farms in New Zealand are growing fresh food for local restaurants and cafes (Kahikatea Farm, 2020; Pakaraka Farm, 2020). This research is particularly interested in this contemporary phenomenon as an example of the bridge between agri-food and gastronomic tourism, and uses this to explore the opportunities for permaculture in gastronomic tourism in New Zealand. The trend of serving fresh food from permaculture farms at local restaurants in New Zealand is explored in the coming chapters.

Gastronomic activities that connect people to a place, enhance the opportunity to bring more tourism, and it is possible that tourists are looking for opportunities to be connected to New Zealand through gastronomic tourism (Berno, 2017b; Fusté-Forné, 2018). Previous studies have suggested that international tourists who visit New Zealand tend to purchase local ingredients and carry them back to their home country as souvenirs. New Zealand wine and dairy products are prominent in this tourism trend (MPI, 2018). Attachment to the land through food is evident. In 2019, Cafiero et al. published an article on tourist motivational factors, in which they explained that “foods are an important element of attraction for a tourist destination” (p. 198) and “culinary traditions can contribute to delineate the touristic culinary identity of a place, which may thus become an attraction for foodies” (Getz et al., 2014 as cited in Cafiero et al., 2019, p. 198). Furthermore, in an analysis of the gastronomic tourism industry, Berno (2017b) found that, the opportunity for success in gastronomic tourism in New Zealand may well depend on the country’s ability to showcase the connection of its gastronomic practices to its landscape and culture. In a recent study on gastronomic culture Berno et al. (2020) mentioned that, “food, cuisine and food traditions all have their roots in local agriculture” (p. 197).

3.5. AGRI-FOOD GASTRONOMIC TOURISM IN NEW ZEALAND

In this section, the overall profile of agri-food gastronomic tourism in New Zealand is discussed; however, that is a challenging task. The aim of this study was focused on a small part of agri-food production, related activity in New Zealand, permaculture in gastronomic tourism, and exploring the gastronomic relationship with permaculture. The researcher gained insights into the primary industries of agri-food gastronomic tourism and explored related ideas by analysing various articles.

From data found on media files in YouTube, it was apparent that tourists traveling from one place to another tended to consume food at least three times a day, and up to 30% of their total daily expenditure went on food-related activities (Berno, 2017b). However, survey data have shown that a food tourist spends 50% more per day while traveling (MPI, 2018), and a number of people are traveling to New Zealand not only to see the

landscape, but also to taste it's land and culture through food (Berno, 2017b). Such visitors have regional food tasting activities on the top ten of their planned activities visit to New Zealand (MPI, 2018). Gastronomic activities bring tourism to New Zealand and show positive growth, so need to be recognised as a tourism facilitator (Berno, 2017b).

In a New Zealand focused agri-food gastronomic tourism article Berno (2017a) suggested that the, exceptional characteristics of agri-food products can portray a distinct tourism picture of a region to the outer world. Similarly, Hall and Gossling (2013) recognized the importance of regional agricultural products in the culinary sector in giving a unique identity to the food grown in a region and a sense of regional taste. Furthermore, according to Hjalager and Richards (2003), local culinary cultures and practices promote food as a foundation of the tourism activity of a region. Regional food and culinary practices are a developing taste among tourists, and gastronomic tourism is becoming a mainstream activity within the hospitality industry (Bertan, 2020). This provides more opportunities for food production units to display their produce as a part of the tourism products of their locality, diversifying regional agri-food products and increasing tourism to the region (Sidali et al., 2011). In different geographical locations, the agri-food production systems are different; therefore, the food ingredients are somewhat unique in nature with different tastes, colours and nutritional properties, all “characteristics that make food products special” (Cafiero et al., 2019, p. 196).

Tourism experiences can be created through gastronomic contributions while tourists “experience a range of gastronomic products linked to the cultural and agricultural resources of a specific region” (Hjalager & Richards, 2003, p. 11). Similarly, in an agri-food tourism report, the Ministry for Primary Industries (2018) suggested that, New Zealand’s gastronomic tourism “connects [...] to the culture of a region not only through the locally sourced food [...] but also the land and people who create our great New Zealand produce”(p. 2). Statistics New Zealand (2019) also reported, that in 2019 tourism expenditure on gastronomic (food and beverage) services was NZD 4,701 million, which was the third largest expenditure after air and other forms of transport expenditure in tourism (Statistics NZ, 2019). New Zealand’s overall gastronomic tourism is somehow

connected with its landscape, agriculture, and ethnic culture, and this phenomenon has been studied by researchers in past years (Fusté-Forné, 2018).

Sznajder et al. (2009) suggested that “restaurants are becoming an integral element of modern agri-tourism” (p. 234). In New Zealand, farmers are enhancing their businesses by working with restaurants, and growing a variety of native and exotic crops and vegetables as well as special ingredients to meet the specific requests of restaurants (New Zealand Tourism, 2017). Another article on agri-food tourism in New Zealand suggested that, farmers are engaging in gastronomic tourism activity by building restaurants on their farms, to enhance the opportunity to increase business and showcase their produce (Mackay et al., 2019). New Zealand’s agri-food industry exports quality food products to restaurants operating their businesses overseas; these food products symbolise New Zealand’s land and gastronomic culture (Cutforth, 2000). The trends of healthy-eating, eating out, and chasing regional taste have, put restaurants in a position where they opt to seek and serve the best quality fresh produce from local growers to give an authentic visitor experience to their guests (Fanelli, 2020).

Tourism New Zealand (2019) reported that, in recent years, it has been seen that people working with pure New Zealand produce are gaining more attention than do others. For example, Hiakai, a restaurant that specializes in Māori cuisine (New Zealand’s indigenous cultural cuisine), uses earth and fire to cook local ingredients, and in recent years has gained attention from international and domestic tourists alike (Hiakai, n.d.).

Another form of New Zealand’s agri-food gastronomic tourism activity is in farmers’ markets, because they represent the local food culture (Roberts, 2017), where visitors learn about the local culinary culture and socialize with the people working within its gastronomic industry (Tourism New Zealand, 2020a). Accordingly, Wolf (2002 as cited in Steinmetz, 2010) proposed that, “tourism inter-linked with local food helps support the livelihood of the local agricultural producers and promotes the maintenance of high quality and purity in food and drink” (p. 2).

A small part of New Zealand’s agri-food industry is creating tourism through “dairy products and organic foods” (MFE, 2001, p. 2). Berno and Fusté-Forné (2019) viewed, cheese as a cultural and tourism product that represents the land, so animals that feed

on the land to produce the milk required for cheese-making, are part of the agri-food industry of New Zealand. Cheese provides an authentic food experience that tourists seek, and the artisan characteristics of cheese bring gastronomic tourism to a locality (Berno & Fusté-Forné, 2019). The dairy industry of New Zealand has been working alongside ice cream parlours and milkshake bars serving dairy products straight from their shops on farms; this act of the dairy industry has put it into the mainstream gastronomic tourism industry of New Zealand (New Zealand Tourism, 2018). Furthermore, almost two years ago the MPI (2018) reported that New Zealand's dairy industry had total exports of NZD 15 billion, which was a significant contribution to the country's tourism economy because New Zealand dairy products such as cheese are products of the country's agri-food tourism (Berno & Fusté-Forné, 2019). New Zealand's tourism industry works as part of New Zealand's export industry (TIA, 2020b). A particular tourist destination may have different attributes of local culture (Nogues-Pedregal, 2012), so this study explores New Zealand's various agri-food production-based gastronomic features in relation to its tourism.

Furthermore, the organic food industry is growing in New Zealand. A 2018 business report showed that since 2015, New Zealand's organic market has grown 30% to a market worth NZD 600 million per annum, and exports of organic food increased 42% since 2015 to NZD 355 million (NZ Organic Market Report, 2018). In 2019, regenerative farming activity in New Zealand also gained popularity, and people are willing to invest in organic farming to increase their quality of living (Organics Aotearoa NZ applauds the Green Party's commitment to regenerative and organic farming, 2020). The MPI (2018) reported that 50% of the Chinese gastronomic tourists to New Zealand had a travel preference for organic food and searched for restaurants where "organic and naturally grown ingredients" (p. 10) were served. Sustainable agri-food gastronomic tourism globally, is supported by the organic food movement (Yurtseven, 2011). Health conscious food tourists seek organic, naturally grown food while traveling (Fanelli, 2020) and New Zealand's agri-food gastronomic tourism industry has found an opportunity to explore this organic food trend its sustainable gastronomic tourism products (MPI, 2018).

The tourism industry has been evolving with other industries and potentially has the characteristics to enrich the overall economy of a country (Pine and Gilmore, 1999 as cited in Hjalager & Richards, 2003). However, tourism needs tourists and tourist attraction to “factors such as exciting experience, escaping usual surroundings, health concern, learning knowledge” (Su, 2015, p. 17). The value of New Zealand’s agri-food tourism is strongly intertwined with its surrounding ambiance, the unique environment, and the hospitality of its people (TIA, 2020a). As Berno (2017b) explained, the “care of people and place, the land and the sea have shaped us [and] our fresh, outwards-looking way of thinking, our determination, and our independence of thought allows us to be creative innovative and often ingenious” (Berno, 2017b).

3.6. SUMMARY

This chapter reviewed the agri-food tourism and gastronomic tourism literature while answering questions about the role agri-food tourism plays in gastronomic tourism and the overall profile of gastronomic tourism in New Zealand. The chapter also provided an understanding of New Zealand’s agri-food production system, which is supported by New Zealand’s culinary sector. The chapter further outlined that the agriculture industry is working together with the tourism industry to increase profitability by adapting new ideas from the food tourism industries and culinary development such as farm tours and farm stays. While conducting a content analysis of the literature and definitions presented in this chapter, codes were developed from data with similar connotations (see Guest et al., 2012). The researcher then put the codes into groups with similar meaning and placed them into themes. The theme of this chapter was “gastronomic tourism: regional agri-food and restaurants”. This theme is further discussed in Chapter 6.

During the analysis, it became evident that the agri-food industry is willing to invest in new ideas to deliver the best quality tourism experience to visitors. As permaculture is relatively new in the agri-food production system, no academic study has yet been conducted into New Zealand’s permaculture practices. There remains a gap in the study of permaculture as part of New Zealand’s agri-food gastronomic tourism facilitator. To address this study gap, this research explores permaculture in Chapter 4, as a

fashionable feature in the sustainable food production system and to determine what New Zealand's permaculture looks like as part of its agri-food industry. It also recognises permaculture practices as a part of New Zealand's agri-food gastronomic tourism industry through its sustainable agri-food characteristic.

CHAPTER 4: PERMACULTURE IN AGRI-FOOD AND GASTRONOMIC TOURISM.

4.1. INTRODUCTION

This chapter explores permaculture as a contemporary agri-food production practice/system/technique. It identifies permaculture practices as part of agri-food tourism products and briefly discusses whether permaculture further extends the role of agri-food tourism in contributing to New Zealand tourism's approach.

4.2. PERMACULTURE

“Man, by divine right [is] king of all nature, for whose benefit the earth was covered and made populous” (Brillat-Savarin, 1970, p. 46). Brillat-Savarin referred to *humanity* as ruler of the beloved mother earth, and wrote “by that deific privilege we do nurture over all other earthly, living things and too an extent of producing food with the help of latest technologically advanced agricultural tools and modern industrialized system” (Rodrigues, 2019, p. 2). Furthermore, according to Pilarski (2011, p. 1):

permaculture is unique [...] permaculture is interdisciplinary [...] at the same time (it) is the design of sustainable human settlement; one of the most important things about permaculture is that it's a synthesis of agriculture, ecology, forestry [...] and a Permaculturist would have a broad understanding on how to set up local economic systems, local currencies, barter systems.

In this research, *permaculture* is perceived as a harmonious interaction between human and nature (see Bane & Holmgren, 2012) and repurposed agri-food production such as farming, garden farming (Bane & Holmgren, 2012), food forests and market gardens, and combines its positive agri characteristics into agri-food tourism products or activities such as farm visits, farm stays, and food forest walks (Mangarara, 2020; Permaculture orchard, 2020). Permaculture has been explored as a part of cultural, social, and agri-food traditions.

The word “permaculture” has been crafted from two different words; Mollison (1996) explained its origin thus; “permanent, is a Latin word meaning ‘to endure’ or to persist throughout, and ‘culture’ is any of those activities that supports and distinguishes human

communities” (p. 2). This transformed ‘permanent-culture and permanent-agriculture’ into ‘permaculture’ as a definite notion (Mollison & Holmgren, 1990). The practice of permaculture has historic links with a country’s culture and society (Taylor Aiken, 2017; Veteto & Lockyer, 2008). The study of culture and society has been contextualized as a tourism contributor (Nogues-Pedregal, 2012) and cultural tourism has become one of the major tourism contributors in many countries around the world (Richards, 2013). Similarly, local cuisine and regional agriculture have been studied as cultural tourism products and considered as a “tool for sustainable tourism development” (Berno et al., 2020, p. 197).

This research is focused on contemporary permaculture practices and has gained insights from the book: “*Permaculture one: A perennial agricultural system for human settlements*” written by Bill Mollison and David Holmgren in 1978 (see Mollison & Holmgren, 1990). The definition of *permaculture* presented by Mollison and Holmgren (1990) is “an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man; it is, in essence, a complete agricultural ecosystem modelled on existing but simpler examples” (p. 1). In numerous studies, permaculture has been discussed as a sustainable farming system, an open option for a healthier tourism culture (Holmgren, 2002 as cited in Wallace & Carruthers, 2017) and an agricultural system; it can therefore be included in the agri-food tourism industry any country that promotes permaculture.

Through permaculture, an increase in local agri-food tourism activities might be achieved alongside positive ecological impacts (Wallace & Carruthers, 2017). For example, travellers visiting permaculture farms can learn about permaculture ethics and people are learning permaculture by taking educational courses offered by permaculture farms and destinations alike (Food tank, 2015). Such travellers may share the vision of permaculture ethics expressed as “earth care: rebuild nature’s capital, people care: nurture self, kin and community, fair share: set limits to consumption and reproduction and redistribute surplus” (Holmgren, 2007, p. 8).

Mollison (as cited in Gailey, 1989) explained that the fundamental conception of permaculture was to develop “a system design of integrating a good housing, divine scope at least use of materials of least pollution output, conservation of natural resources”

(p. 1). The practice of permaculture has touched on different disciplines. From food production to community building within society (Althealth Works, 2018), permaculture connects people, food and culture (Engels, 2020).

Holmgren (2002 as cited in Rodrigues, 2020) observed that “permaculture is regulated by number of ideologies and morals which are destined to assist anywhere in the planet” (p. 3); these are as follows: “monitor and cooperate to ‘receive and stock energy’ for ‘no wastage driven production’ and ‘give value to all’ by ‘undertaking local activities’ while reflecting on positive universal impacts” (Wallace & Carruthers, 2017 as cited in Rodrigues, 2020, p. 3). Though it is largely unrecognized in academia and in mainstream practice, permaculture is a network of people, a community (Holmgren, 2007) and the people who practise permaculture are called “permaculturists” (Pilarski, 2011, p. 1) or “permaculture activists” (Resilience, 2020, p. 1). A study of permaculture by Gaisford (2010) provided insights into post-development, and explained the concept of rejection of limitless economic growth and adapting “limited to growth” through the “environmental justice movement”. The adaptation of permaculture as a practice has different connotations, as followers of the practice of being closer to nature, could be segregated as belonging to a particular belief or movement (Gaisford, 2010). Hermans et al. (2016 as cited in Finkill, 2019) proposed that “permaculture can be defined as a grassroots innovation movement” (p. 24) suggesting that mainstream industry protectionism or protectionism by the state itself or the people involved in permaculture, is often seen as activism (Gaisford, 2010). This discussion portrays a clear picture of permaculture as an holistic agriculture approach that includes human living and food production and everything within.

4.2.1. PERMACULTURE DESIGN PRINCIPLE AND THE FLOWER

In the “*Essence of permaculture*” Holmgren (2007) proposed that

...ethics continue to be taught and used as simple and relatively unquestioned ethical foundations for permaculture design within the movement and the wider “global nation” of like-minded people. More broadly, these ethics can be seen as common to all traditional cultures that have connected people to land and nature throughout history (p. 8).

These statements respond to permaculture practice as a continuous living system that evolves from time to time. Holmgren (2007) summarized the essence of permaculture as “the range of strategies and techniques which reflect the principle in each domain is still evolving” (p. 7). “Permaculture design principles” (PDP) involve contemporary scientific practices and “other intellectual disciplines” (Holmgren, 2007, p. 9). Holmgren (2007) commented on permaculture design systems:

Permaculture is not the landscape, or even the skills of organic gardening, sustainable farming, energy efficient building or eco-village development as such, but it can be used to design, establish, manage and improve these and all other efforts made by individuals, households and communities towards a sustainable future (pp. 1–3).

Permaculture Design Principles (PDP) are not general by design, as there may be more than one set of principles in the literature developed by permaculture writers internationally. However, this research focuses on the PDPs explained in Holmgren's (2007) book, because the research is focused on exploring the possibilities of permaculture. As Holmgren (2007) pointed out, “this principle is clearly addressed to our own behaviour, it also applies to our design of systems to facilitate learning” (p. 11).

There are twelve permaculture design principles (Holmgren, 2007), which are well-cited in the literature and in practical domains, so they may become a research topic of their own. As this research summarizes them as per the research interests, the PDPs proposed by Holmgren (2007) are presented in Appendix B.

In spite of a substantial number of influential cases, the permaculture method is not devoid of opposition. Arguments have proposed that permaculture minimizes scientific knowledge and admits that its simple solutions may create inappropriate and faulty models (Finkill, 2019). However, this debate can be dismissed, as Holmgren (2007) advocated that “humans, although unusual within the natural world, are subject to the same scientific laws that govern the material universe including the evolution of life” (p. 5). In addition, an advantage of permaculture, is that

once established, the input cost of a perennial restoration agriculture system (permaculture system) approaches zero, in fact an ideal design would be one where the inputs for one crop would be accomplished by the harvest of another (Shepard, 2013, p. 48).

This statement suggests that, permaculture design systems are not only eco-friendly but also economical. This is a useful view for the study of the prospects of permaculture as this research focuses on the potential for permaculture in gastronomic tourism.

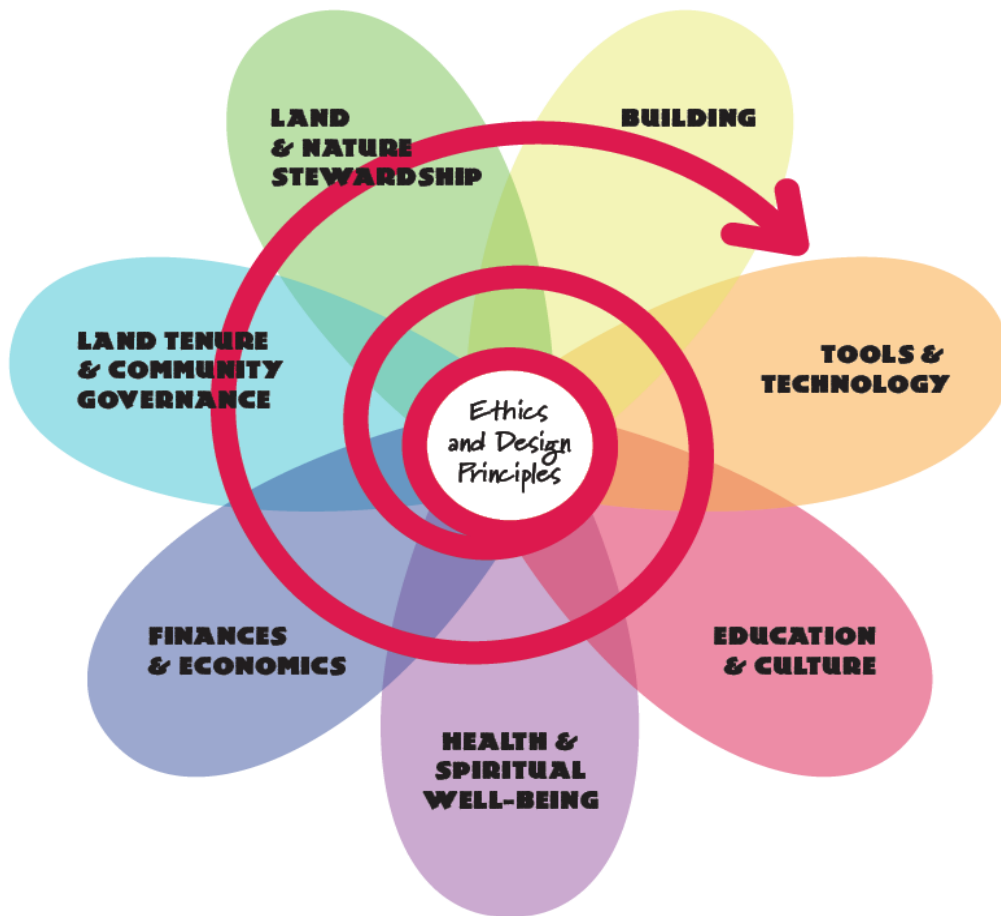
As Mollison and Holmgren (1990) explained, permaculture gathers knowledge from nature and invests it back as natural productivity, which creates a cycle of life, a system that syndicates scientific disciplines such as “agriculture, forestry, zoology, botany, physics, engineering, chemistry, medicine, pharmacy, [and] psychology” (p. 97). Aranya (2012) elaborated on this by writing that permaculture is a well-planned food production system that controls the growth, cultivation and timeline, and rarely produces any waste because each component of the farm is used and reused for food production.

A secondary concern of this research is to explore a small part of agri-food sustainable tourism. Holmgren (2007) proposed a framework called the “Permaculture Flower” (p. 2). Holmgren (2007) specified a number of areas that needed conversion or change in system designs to achieve sustainability. The framework draws on permaculture ethics and permaculture design principles to extend the area of permaculture practice from individual aims to a worldwide scale of sustainability. This research does not aim to conduct an in-depth study of the sustainability of permaculture, but some of these key features are also a matter of interest for the study. Therefore, this study explores the “Permaculture Flower” in Figure 2; the key domains are explained in the accompanying Table 1.

The key domains of the Permaculture Flower are organic agriculture, natural farming, reading landscapes, farmers market, permaculture community, eco-villages, which are all connected to contemporary agri-food functions. This research draws on the Permaculture Flower because it provides insights into PDPs and how these can be utilized to enhance food production systems for tourism activity and enrich communities through the holistic nature of permaculture.

FIGURE 2:

Permaculture Flower



Note: Reprinted from *Essence of Permaculture (Revised ed.)* by David Holmgren, 2007 (p. 1). Copyright 2007 by Holmgren Design.

TABLE 1:

Key Domains of Permaculture Flower

THE PERMACULTURE FLOWER

BIOLOGICAL FIELD	BUILT FIELD	BEHAVIOURAL FIELD	
<p>LAND AND NATURE STEWARDSHIP</p> <p>Bio-intensive gardening</p> <p>Forest gardening</p> <p>Seed saving</p> <p>Organic agriculture</p> <p>Biodynamics</p> <p>Natural farming</p> <p>Keyline water harvesting</p> <p>Holistic rangeland management</p> <p>Natural sequence farming</p> <p>Agroforestry</p> <p>Nature-based forestry</p> <p>Integrated aquaculture</p> <p>Wild harvesting and hunting</p> <p>Gleaning</p>	<p>BUILDING</p> <p>Passive solar design</p> <p>Natural construction materials</p> <p>Water harvesting reuse</p> <p>Biotechure</p> <p>Disaster resistant construction</p> <p>Owner building</p> <p>Pattern language</p> <p>TOOLS AND TECHNOLOGY</p> <p>Reuse and creative recycling</p> <p>Hand tools</p> <p>Bicycles and electric bikes</p> <p>Wood stoves</p> <p>Fuels from organic waste</p> <p>Wood gasification</p> <p>Biochar from forest wastes</p> <p>Co-generation</p> <p>Micro-hydro & wind</p> <p>Energy storage</p> <p>Transition engineering</p>	<p>EDUCATION AND CULTURE</p> <p>Home Schooling</p> <p>Steiner/Waldorf education</p> <p>Reading Landscapes</p> <p>Participatory arts and music</p> <p>Social ecology</p> <p>Action research</p> <p>Transition culture</p> <p>Voluntary simplicity</p> <p>HEALTH AND SPIRITUAL WELLBEING</p> <p>Home birth and breastfeeding</p> <p>Complementary and wholistic medicine</p> <p>Yoga, tai chi & other body/mind/spirit disciplines</p> <p>Spirit of place, indigenous culture revival</p> <p>Dying with dignity</p>	<p>FINANCE AND ECONOMICS</p> <p>Ethical investment and Fair trade</p> <p>Local and regional currencies</p> <p>Carpooling, ride sharing and car share</p> <p>Farmers' markets & community supported agriculture (CSA)</p> <p>WWOOFing and similar networks</p> <p>Tradable energy quotas</p> <p>Life cycle analysis and EMERGY accounting</p> <p>Frugal hedonism</p> <p>LAND TENURE AND COMMUNITY GOVERNANCE</p> <p>Cooperatives and body corporates</p> <p>Cohousing and eco-villages</p> <p>Native title and Traditional rights</p> <p>Open space technology and consensus decision making</p> <p>Sociocracy</p>

Note: Reprinted from *Essence of Permaculture (Revised ed.)* by David Holmgren, 2007 (p. 1). Copyright 2007 by Holmgren Design.

4.3. PERMACULTURE PRACTICES AND PERMACULTURE TOURISM IN NEW ZEALAND

In New Zealand, permaculture started to develop in the 1970s, as New Zealanders were trying to find alternative food production systems; and were aiming for the “organic” label in the agri-food market (Campbell & Liepins, 2001). Ritchie and Campbell (1996 as cited in Campbell & Liepins, 2001, p. 4) advocated that, permaculture

began to coalesce into a more recognizable social movement with a number of small organizations emerging that were committed to different types of alternative agriculture [...] and as a system that was being attempted in farms and communities around New Zealand.

The approach adopted by the permaculture movement could be termed “socio-technical innovation” (Ferguson & Lovell, 2015; Ingram et al., 2014) challenging the incumbent regime through transition management (Ferguson & Lovell, 2015).

This section overviews contemporary permaculture practices in New Zealand by exploring and analysing resources from various organizations’ official websites and exploring permaculture tourism possibilities in parts of the country where farms, centres, organizations, and communities operate their small permaculture related activities. An overview of permaculture practices in New Zealand is presented in Appendix C, with a list of New Zealand based permaculture farms and organizations and their website addresses. It should be noted that this is not an exhaustive list of the known population of permaculture businesses in New Zealand. Rather, it is a sample that comprises what was available in the public domain on the world wide web at the time of writing. Permaculture farms and other organizations are working to uphold the permaculture practice and create communities. Noticeably, all these permaculture farms are providing learning opportunities and workshops, farm tours, accommodation and food forest tours, all of which are considered as agri-food tourism activities (Sznajder et al., 2009).

Some permaculture farms have gained popularity because of the fresh food they are growing and supplying to local restaurants. This practice links to culinary tourism (a part of gastronomic tourism) activity (Testa et al., 2019). In past years, some of these farms have made good returns by selling their fresh produce to restaurants and through

community engagement. As an example, Pakaraka Permaculture is a small garden market, on a quarter of an acre, considered to be a small farm with an “annual turnover of NZD 90,000 and aiming at NZD 100,000” (Ljanta, 2020, p. 1). This financial success links sustainable agri-food production systems, agri-food tourism and gastronomic affiliations with restaurants and farmers’ markets in the locality (Pakaraka Farm, 2020).

In a similar manner to permaculture practices, regenerative tourism (Becken, 2020) can be considered part of New Zealand’s tourism, as explored in Chapter 5. All of the studies reviewed on permaculture, support the suggestion that there is potential for permaculture practices in New Zealand and the possibilities are not organized or documented in the academic literature. This study focuses particularly on the future prospects in the following discussion, as well as in the findings section of this research.

4.4. PERMACULTURE: POSSIBILITIES IN NEW ZEALAND’S AGRIFOOD GASTRONOMIC TOURISM

Literature is available on different aspects of permaculture in New Zealand. However, no study has been found focusing on the scope of permaculture in gastronomic tourism in New Zealand. This study focuses on linking all the aspects together to position permaculture within the broader context of gastronomic tourism in New Zealand. The next section outlines the possible scope of permaculture in New Zealand’s agri-food gastronomic tourism industry.

*** *Natural and eco-friendly production system***

Permaculture focuses on multiple ways of natural farming for food production and on other eco-friendly activities in the community (Wallace & Carruthers, 2017). It promotes local food products (Roberts, 2017) and farms as a part of agri-food tourism products and destinations (Beach, 2016). According to Rhodes (2012), *permaculture* is acknowledged as a food production or agricultural system that imitates nature. Berno (2017a) stated that being “overly-reliant on agricultural production [...] New Zealand is vulnerable to externalities” (p. 163). New Zealand’s over-productive export driven agri-food industry may meet economic goals in the short term, but in the long term it may develop problems (Berno, 2017a). There may be scope for considering permaculture-based production,

which has several ways of contributing to New Zealand's sustainable agri-food tourism industry (Becken, 2020).

* ***Community building***

As discussed earlier in this chapter, some small organizations have taken the opportunity to practise permaculture in New Zealand and have gained positive responses from the agri-food and tourism industry ("Getting started with Permaculture in New Zealand", 2019; New Zealand Herald, 2018). According to Graves (2014), permaculture practice in New Zealand's North Island includes farm tours, natural infrastructure design and building, kitchen garden tours and food forest tours, and New Zealand has a vibrant network of permaculture communities that are connected through social networks such as Facebook, websites such as Workway, and blogs (e.g. "Getting started with Permaculture in New Zealand", 2019; Egan et al., 2017; Permaculture in NZ, 2020; Workway, 2020) and these digital platforms can be utilized to improve social affiliation and intercultural connections through permaculture platforms (Bollier, 2012). For example, Workway is a network of people connected through a digital platform, promoting travel experiences and creating community through participant engagement, offering travel experiences while working on permaculture farms and in similar activities (Workway, 2020). These types of community network and their range of influence indicates an underlying movement of alternative possibilities for agri-food gastronomic tourism (Egan et al., 2017; Egan & Benyon, 2017).

* ***Food as a foundation of tourism***

Permaculture farms in the North Island of New Zealand show similar characteristics to those of other agri-food tourism destinations. An example of one in particular is useful for exploring the opportunity for permaculture farms to be part of agri-food tourism activity. The Pakaraka Permaculture farm and garden market grows quality fresh food for the community, offers farm trips and permaculture training tours and quality fresh produce for restaurants in New Zealand's gastronomic sector (Ljanta, 2020; Pakaraka Farm, 2020; Stone Soup, 2018; Wong, 2018). An in-depth analysis of this permaculture farm is provided in Chapter 6.

Recent articles have shown that permaculture farms offer an opportunity for visitors to pick food from farmers' markets and learn about the food while they are traveling the country. This is similar to the activities of other agri-food tourism operations. These farms supply fresh food products (meat and vegetables) to a number of gourmet restaurants around New Zealand, so this activity can be considered as a foundation of food tourism (Pakaraka Farm, 2020; Permakai, 2020; The Food Farm, 2020; Yeniceri, 2017).

Steinmetz, (2010) highlighted that the relationship between food and tourism requires a critical understanding of the food industry, as local and regional food tourism stakeholders in New Zealand have not consider food as a potential tourism product. Linking gastronomic practices with permaculture practices could improve local tourism industries and create substantial changes in the regional agri-food gastronomic tourism industry, as discussed in the previous chapter.

A seminal study by Liu et al. (2017) argued that, "gastronomy relates the regional diversities [...] and it is becoming an essential ingredient in tourism production" (p. 1). Innovative ideas such as permaculture systems in food production are placing the agri-food sector within the tourism sector, and farms as tourist destinations (Liu et al., 2017). Maye (2018) added that, *permaculture* has been considered as an innovative, ingenious practical food-production or regenerative farming system that can create sustainable future and enrich community. Megan May of Little Bird Organics explained that

when food is coming straight from the farm it's hard for it not to taste better. In the case of Pakaraka Permaculture [this is done by] using highest quality seed and growing techniques to produce nutrient dense food with minimal impact (Stone Soup, 2018, p. 1).

This statement suggests that, permaculture farms supply sustainably grown good quality food ingredients to well-known restaurants and chefs in New Zealand.

This chapter examines the story of one small permaculture farm and two restaurants to deliver an impression of contemporary permaculture and gastronomic tourism opportunity (see McCombes, 2020b). Each sub-section under section 4.5.1. presents the story of one of the three establishments. These establishments were brought together through a permaculture-food trail that begins at Pakaraka Permaculture farm and garden market.

Both of the restaurants were found while the researcher was gathering research data and analysing Pakaraka Permaculture's website.

4.5. A PERMACULTURE FOOD TRAIL

These three enterprises are different in their type of business and organizational identity. The permaculture farm is an agri-food producer and the restaurants are gastronomic tourism providers. The researcher was keen to identify the links between these three organizations and identify what their common interests were. For that reason, the story of these three organizations has been brought into this part of the study so they can be analysed and assessed according to the research interest. The stories were compiled from the three organizations' websites.

4.5.1. FROM A MARKET GARDEN TO THE FINEST TABLES: A STORY OF PERMACULTURE AND TWO SLICES OF NEW ZEALAND'S GASTRONOMY

*** *Permaculture: Pakaraka Permaculture and garden market, Thames.***

As the primary objective of this research was to explore permaculture as an attribute of agri-food gastronomic tourism, an example of a permaculture farm is provided. Pakaraka Permaculture farm was positioned as an example of a permaculture enterprise. To understand the opportunities of permaculture practice within the agri-food industry, this story presents insights into the rising food culture and links this with mainstream gastronomic tourism through restaurants. Furthermore, the statements in the story were analysed to understand what permaculture looks like as an agri-food grower in New Zealand.

Pakaraka Permaculture farm and organic garden market is ten minutes' drive from Thames, in the Coromandel Peninsula, situated on the Kauaeranga riverbank, a five-minute walk from Kauaeranga Valley road. At the time of writing it was a permaculture destination that produced healthy agri-food for the community and sold the produce at the local farmers' market, provided farm and garden tours for tourists, held workshops and

events for visitors, and supplied fresh vegetables to local gourmet restaurants (Pakaraka Farm, 2020; Stone Soup, 2018).

From an agri-food gastronomic tourism perspective, Niva and Yotam Kay of Pakaraka Permaculture explained:

We love food [...] we often talked about what we would serve in our imaginary restaurant [...] now in our fourth year of operation, we are constantly excited and inspired to see what chefs make with the vegetables we send them. We have established a true sense of connection when we can follow our vegetables from farm to table and see them being appreciated and celebrated (Stone Soup, 2018, para. 16).

To uphold the permaculture tradition, “we are growing over 8,500 kg of food a season on a quarter acre of land since 2014” (Pakaraka Farm, 2020, p. 1) explained Niva and Yotam Kay, the heart and soul of Pakaraka Permaculture market garden.

“Pakaraka farm is an off-grid 215 acres of diverse agri-ecological projects [...] established by Harry Parke and Jeanette Fitzsimons in 1991” (Pakaraka Farm, 2020, p. 1). Together with Pakaraka Permaculture, the farm expanded to feed the community and teach the value of permaculture and regenerative living.

Drawn to Pakaraka Permaculture’s values a growing number of visitors from all over the world and various regions of New Zealand have travelled to the farm and participated in workshops and events. Some visitors decided to stay longer and learn more about the permaculture principles and agriculture techniques taught by Yotam (Television NZ, 2019).

* ***Sustainability: Orphans Kitchen, Ponsonby, Auckland.***

Another concern of this research was to explore the sustainable tourism practices of New Zealand, while focusing on the primary concern of the research, which is positioning permaculture in gastronomic tourism that utilises agri-food as the intermediary. This particular restaurant was included because it used the fresh produce from Pakaraka Permaculture farm as its prime ingredient, and served this in the restaurant. This research draws on this example of a restaurant that supports sustainable gastronomic practices, so the story of Orphans Kitchen was important to include in this study.

“The home of unadulterated food and naughty wines” Orphans Kitchen is a partnership between two friends, Tom Hishon, executive chef, and Josh Helm, manager” (Orphans Kitchen, n.d., p. 1). Orphans Kitchen is a sustainable restaurant in Ponsonby, Auckland hidden “inside a narrow Victorian villa built in 1912”(Orphans Kitchen, p. 1).

With a strong will to support New Zealand’s sustainable, agri-food produce Orphans Kitchen worked closely with various permaculture farm and organic market gardens, one of which was Pakaraka Permaculture (Hallinan, 2017).

Orphans Kitchen had set a six-step manifesto that supports the sustainable, organic, green food movement, and above all, represented New Zealand’s natural heritage. Of the six steps, the first five steps closely relate to this research. Orphans Kitchen (n.d.) manifesto was as follows:

- * Practically express the qualities of purity, simplicity and sustainability that we would like to see associated with New Zealand’s food culture.
- * Respect New Zealand’s erratic weather and remember that ever changing conditions are associated with New Zealand’s food culture.
- * Work with regional produce that is cultivated with care, high in nutrients and holds the unique terroir of the area.
- * Continue to invent and challenge convention and produce the best dining experiences.
- * Promote the protection of native fish species in our seas and openly champion more sustainable approaches to harvesting food in our forests, farmlands and rivers.

Note: Reprinted from Orphans Kitchen, n.d. (p. 1). Copyright 2020 by Orphans Kitchen.

With a limited space of 40 seats, in Orphans Kitchen’s journey towards ethical food production and sustainable practice in agri-food tourism, Tom and Josh earned Orphans Kitchen’s place among New Zealand’s finest restaurants by wining Cuisine’s - Good Food Awards in 2018 (Cuisine, 2019).

* ***Landscape: Pasture, Parnell, Auckland.***

This last organization was a specialty restaurant, and reputedly a gastronomic icon. The story of Pasture was included in this research to introduce a gastronomic facilitator of permaculture practices in New Zealand. This restaurant purchased fresh produce from Pakaraka Permaculture and created magnificent dishes for their customers. Pasture's website statements were analysed to understand the opportunity permaculture farms holds in terms of agri-food producers.

Pasture was a six-seat restaurant located in Parnell, Auckland led by chef owner Ed Verner, who explained "we are called 'Pasture' because we are inspired by the New Zealand landscape" (Pasture, p. 1).

A quote from its website highlights the quality of this gastronomic icon of Auckland. Laura Verner of Pasture, told Stone Soup (2018):

...when you have a restaurant like Pasture the whole lot has to be considered. When you are trying to innovate and source the best and most delicious things you can to share with your diners, you have in their field and connect with them[...] The permaculture farmers who receive your wish-lists and try to understand what you are aiming for (para. 9).

Laura and Ed developed their keen sense of good food in the early stage of their relationship. While Ed was in charge of the food. Laura introduced him to organic farming and community gardens (Didovich, 2017). Ed explained, "the produce you use is the most important part. You can have the best tools and techniques, but if your ingredients aren't great then the food you make will reflect that" (Didovich, 2017, p. 1).

The key for a successful dish is in the ingredients and Pasture understood the boundaries. Laura further explained,

We know we can't run a restaurant with ambitions like ours if we don't have epic produce to work with in the first place [...] we're a customer wanting what the farm offers, and we want to work with them directly [...] Niva and Yotam Kay of Pakaraka are shining examples [and the] fact that they operate through a permaculture approach is remarkable. They go beyond organics and are farming to have a positive effect on their land and their community, as well as supplying the restaurant industry (Stone Soup, 2018, paras. 11–13).

Laura dreamed of supporting all the small-scale agri-food growers and producers to flourish and bring joy to the locality through farmers' market events, as she explained to Stone Soup (2018):

Imagine if we had that. When I have the opportunity to meet the people who grow the food I buy, I have a deeper understanding of the value of their produce, I believe it would create a closer connections between people and their food [...] since opening Pasture I feel the relationship with our food system has grown exponentially and it would be empowering for other people to have the chance to connect to local food sources (Stone Soup, 2018, para. 14).

Pasture was the "Supreme Winner and Best Fine Dining Restaurant" of *Metro Peugeot Restaurant of the Year Awards, 2019* (Metro, 2019, p. 1), and Ed Verner of Pasture won the "Best chef award" of *Metro Peugeot Restaurant of the Year Awards, 2019*, the "Innovation Award" of *Cuisine Good Food Awards, 2019* (Cuisine, 2019, p. 1; Metro, 2019, p. 1) and Pasture won the "3 Hats" of *Cuisine Good Food Awards, 2019* (Cuisine, 2019, p. 1).

4.5.2. LOOKING BACK

The story of these three establishments is outlined to explore "permaculture" and provide a contemporary example of permaculture practice to explore the possibility of working within the agri-food gastronomic tourism industry. In this story, the two restaurants (Pasture and Orphans Kitchen) and one permaculture farm (Pakaraka Permaculture garden market) are described and characterized. Several characters from each establishment were identified while analysing their organizational websites and articles published on their webpages. They were: Yotam and Niva from Pakaraka Permaculture, Tom Hishon and Josh Helm from Orphans Kitchen, Laura and Ed Verner from Pasture and Stone Soup from the Stone Soup Syndicate's magazine. Stone Soup has been categorized as a gastronomic and lifestyle magazine publisher with whom the characters of this story had been communicating through interviews. Stone Soup's magazine article, "Good things grow" (Stone Soup, 2018, p. 1) was found on Pakaraka Permaculture's official website (<https://www.pakarakafarm.co.nz/page/media/>).

Data compiled from these sources developed the story presented in this chapter. This was undertaken to explore the characteristics of permaculture farming practices, that were recognized by the restaurants. As stated earlier in this chapter, permaculture farms have been categorized as “agri-food production” units and restaurants have been categorized as “gastronomic tourism” units. The aim of this story was to provide an insight into how permaculture can be utilized as an attribute of agri-food gastronomic tourism. Data from this story were analysed and themes generated. The themes of this story are “recognizability”, “innovative”, “regionality”, “advocacy” and “luminary”. These themes are discussed in Chapter 6.

4.6. SUMMARY

This chapter explored permaculture system by collecting data from permaculture related literature and articles reflecting on “what” permaculture looks like in New Zealand’s agri-food tourism industry, then analysing the collected data. This chapter provided thoughtful insights into permaculture design systems and a permaculture flower model for utilisation in future gastronomic tourism studies. This chapter has developed an understanding of permaculture as a design system that allows the building of a strong network of people and community. The chapter explored contemporary permaculture practices that involve gastronomic activities. While analysing the literature, articles, and statements provided in this chapter, it was found that the most frequently emerging words were “permaculture”, “tourism”, “food” and “New Zealand”. Other words that came after were “community”, “culture”, “food-production”, “farms”, “gastronomic”, “local”, “positive” and “practices”. By analysing data sources of text and sub-texts presented in the literature and articles in this chapter, it became evident that the themes of this chapter were “permaculture”, “natural”, “food-production”, “community” and “tourism”. The three establishments provided examples of permaculture practice in New Zealand. Themes from these stories are discussed in Chapter 6.

While exploring and analysing the data for this chapter, it was noted that research on this field is relatively sparse and the academic literature does not show any links between gastronomic tourism and permaculture practices in New Zealand. Furthermore, there is

evidence that permaculture activities have the characteristics to help build a better more sustainable tourism industry for New Zealand. In the next chapter, sustainable tourism practices and the possibilities for permaculture in sustainable tourism are explored.

CHAPTER 5: PERMACULTURE IN SUSTAINABLE TOURISM IN NEW ZEALAND

5.1. INTRODUCTION

This chapter explores New Zealand's sustainable tourism practices and hopes to understand how permaculture tourism can be positioned within the broader context of sustainable tourism in New Zealand.

5.2. SUSTAINABLE TOURISM

There are several approaches to sustainable tourism that have been a major interest of many studies at academic and industry levels (Weaver, 2006). In a recent study of regenerative tourism, Becken (2020) stated that "there are different approaches in tourism [towards sustainability]. Examples include responsible tourism, ethical tourism or sustainable tourism" (para. 2). Characteristics of sustainable tourism were identified by Dymond (1997) as, tourism that engages the environmental, societal, regional and economic strength of a tourism destination. "Due to its holistic nature, the achievement of sustainable tourism requires the support of both the public and private sectors of the tourism industry" (Dymond, 1997, p. 280). To implement sustainability in the tourism industry, the concept of sustainable tourism was proposed by the World Tourism Organization (n.d. as cited in Weaver, 2005) as follows:

"Make optimal use of environmental resources that constitute a key element in tourism development. Respect the socio-cultural authenticity of host communities, conserve their built and living cultural understanding and tolerance [...] maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourist, raising their awareness about sustainability issues and promoting sustainable tourism practices" (p. vii).

These commitments reveal sustainable tourism's holistic nature of environmental and community engagement that closely relates to the permaculture practices mentioned in the previous chapter. The next section explores New Zealand's sustainable tourism background.

According to McCool et al. (2013), the term “sustainable tourism” took its root in the late 1980s (p. 214) and

the present notion of sustainable tourism is obsolete in respect to the history of the development of the concept of sustainable tourism. Two major outlines are, the increasing social attention and economic demand another is, concern of state level economic development (McCool et al., 2013, p. 215).

McCool et al. (2013) also indicated that the concept of sustainable tourism has been utilized as a quick solution to social, environmental, and economic unrest. The concept of sustainable tourism now stands upon the idea that “smaller is better” (McCool et al., 2013, p. 213) might impact negatively in terms of the long run of the tourism industry in the years to come (McCool et al., 2013). As sustainable tourism encourages small scale creative ideas, it also isolates the tourism industry from other economic or industrial bonding, thus creating illusions of economic progress, which are considered to be a barrier for the overall tourism industry (McCool et al., 2013, p. 220).

5.3. TOWARDS SUSTAINABILITY: NEW ZEALAND’S SUSTAINABLE TOURISM

Not every tourism practice in New Zealand is a part of sustainable tourism, although New Zealand’s tourism industry follows sustainable tourism commitments when viewed from a broader context (TIA, 2017). Becken (2020) indicated that, “New Zealand has a history of sustainable tourism with many businesses making operational choices towards sustainability” (para. 1). A report on New Zealand’s sustainable tourism observed that, the country has been preserving its natural wonders (MFE, 2001) and practising sustainable tourism since the 1880s (Becken, 2005, p. 18) to provide exceptional tourism experiences for holidaymakers. Similar reports stated that New Zealand’s unique ecosystem has been cherished as a national treasure and showcased as part of the food-culture and agri-food economy, and of the sustainable and gastronomic tourism (food-tourism) industries (DOC, 2016, 2020). New Zealand’s tourism industry website, Tourism Industry Aotearoa (2020) promises that “we strive to enhance our natural environment and enrich our communities while delivering economic prosperity” (p. 1). Similarly, the Department of Conservation (2020) considers that the basis of New Zealand’s tourism sector is the natural heritage of the country. Where the will of society supports and

maintains eco-friendly, sustainable practices in agriculture, food, culinary culture and the overall tourism industry, it has the potential to create a sustainable tourism industry in that country (Dymond, 1997; Page & Thorn, 2002).

New Zealand is determined to take a stance against the ever-increasing ecological concerns of climate change (Shaw, 2019). The New Zealand Government has joined other countries to uphold the United Nations' Sustainable Development Goals (United Nations, 2015, p. 1) to fight against climate change and reduce carbon footprints (Ministry of Foreign Affairs and Trade, 2020). In 2017, Tourism Industry Aotearoa (TIA) began the Tourism Sustainability Commitment (TSC) to unite all sectors of New Zealand's tourism industry. By 2019, it was estimated that 1400 or more organizations had signed the commitment (TIA, 2020a).

The tourism sustainability commitment comprises 12 commitments (TIA, 2020a). Of these 12, six are highlighted in this research because they closely resemble the permaculture design principles discussed in Chapter 4. These six commitments are:

1. Innovation
2. Visitor engagement
3. Community engagement
4. Sustainable supply chain
5. Restoring nature
6. Eliminating waste

(TIA, 2020a, pp. 2–3)

From exploring these tourism sustainability commitments, it became clear that, permaculture has similar goals as well as the prospect of being positioned within the broader context of sustainable tourism in New Zealand. This understanding is explored further in this chapter.

5.4. THE ROLE OF PERMACULTURE IN SUSTAINABLE TOURISM IN NEW ZEALAND

The TSC programme is “focused on supporting the industry to be restorative or regenerative in its interactions with both nature and communities” (TIA, 2020a, p. 1). Permaculture design concepts and principles were developed to support individuals to produce their own food and produce food for the community using a “sustainable, regenerative farming or gardening system that might heal the earth/soil and increase its abilities by constructing natural-capital” (Bane & Holmgren, 2012, p. 7).

As noted earlier in chapter 4, permaculture (and regenerative tourism) “follows the principle of minimizing harm or negative impact” (Becken, 2020, para. 3) on the environment and society, so people are adopting these principles for their organizations. Becken (2020) stated:

The basic underpinning of regenerative tourism is that it is understood to occur within an ecosystem of natural, social and cultural elements [...] and with that the wellbeing and health of the system [...] that builds capital and gives back to the land and people (para. 4).

In chapter 4, this research explored similar statements about permaculture ethics and permaculture ideologies and found they mentioned “sustainability” and “earth care that enriches community”. As regenerative tourism promotes an understanding of the ecosystem and minimising harm, it has similar characteristics to those of permaculture practice (as mentioned in Chapter 4), that could position permaculture tourism as a part of regenerative tourism. Also, as regenerative tourism is a contemporary sustainable tourism practice in New Zealand (Becken, 2020) permaculture’s sustainable tourism practice could be positioned within regenerative tourism. As discussed earlier in Chapter 4, permaculture farms can increase local agri-food tourism through their sustainable characteristics. For example, permaculture activities such as farm tours, farm stays, learning about permaculture ethics, permaculture learning opportunities, learning about “earth care” (Food tank, 2015; Kahikatea Farm, 2020), food forest visits and glamping, are similar to the activities of regenerative tourism (Becken, 2020).

From a sustainable tourism perspective, the COVID-19 pandemic has had a considerable impact on the tourism sectors, and New Zealand's response to help revitalise domestic tourism showed an eagerness to recover and help re-establish the economy (Carr, 2020). As permaculture practice has been shown to be a sustainable model for agri-food production it may be linked with the post-covid sustainable tourism prospects of New Zealand. Permaculture not only provides the scope to grow food in a sustainable environment, but also creates opportunities in the locality and reduces economic barriers through community building activity and tourism (Holmgren, 2007). New Zealand should understand and realize from this pandemic that it is more important than ever to focus on sustainable tourism (Carr, 2020). A fact sheet published by Tourism NZ (2020) noted that just before the pandemic, 60% of New Zealand's tourism expenditure came from domestic tourists movements and in terms of perceptions of value for money, 58% of the sampled population thought it was good to spend on food and beverages during holidays (Tourism NZ, 2020b).

While this research primarily focuses on permaculture practices in New Zealand as a part of the agri-food gastronomic tourism practice, it also explores the possibility that permaculture practices might have to be positioned within regenerative tourism as a contemporary sustainable tourism approach for New Zealand. Becken (2020) argued that

[Sustainable] tourism context value is not necessarily just measured in dollar terms. Strengthening of social fabrics due to tourism activity in rural environments, diversification of incomes (e.g. farm stays or glamping), integration of local economies (e.g. food trails and farmer markets), restored environments and so forth, could all be measures of success in a thriving tourism sector (para. 11)

Similarly, permaculture farms provide a range of visitor opportunities, such as permaculture design workshops, farm to table opportunities food forest tours, and glamping (Airbnb, 2020; Blockhill, 2020; Kahikatea Farm, 2020; Pukahu, 2020; WWOOF NZ, 2020). Furthermore, permaculture farms all over New Zealand are producing organic, fresh, health food products for the community and for local restaurants (Hallinan, 2017; Pakaraka Farm, 2020; Wong, 2018). Lia (2015) believed that, permaculture provides the opportunity to build a better, smarter and more eco-friendly approach for sustainable tourism industry. Permaculture promotes "many new areas of business activity in eco-tourism and environmental education" (Holmgren, 1978, p. 4).

Looking through a gastronomic lens, permaculture farms are seen to provide good quality agri-food products to renowned diners and food hubs playing a small role in a large gastronomic culture. Little Bird Organics, Pasture (Stone Soup, 2018, p. 1) and Orphans Kitchen (Wong, 2018, p. 1) are part of Auckland's food scene and gaining popularity through tasty and healthy food options (Cuisine, 2019a; Stone Soup, 2018). All of their success stories connect to numerous permaculture practitioners. This research took the opportunity to look at and analyse one permaculture farm, "Pakaraka Permaculture" (Pakaraka Farm, 2020) in Chapter 4.

5.5. SUMMARY

This chapter explored the concepts of sustainable tourism determining what permaculture sustainable tourism looks like and how it can be positioned in the broader sustainable tourism practices of New Zealand. The chapter explored overall sustainable tourism practice to understand how the role of permaculture can work within the sustainable tourism industry of New Zealand. This chapter provided insights into how the diversification of tourism activities can improve opportunities for the tourism industry. Furthermore, while analysing the data for this chapter, familiarity was established with multiple words representing similar notions, from which the themes for the chapter were developed. The themes are: "sustainable", "regenerative" and "food". The next chapter discusses the themes in this research and presents the key findings.

CHAPTER 6: DISCUSSION AND FINDINGS

6.1. INTRODUCTION

The data in the literature and articles were analysed to answer the primary question of this research: can permaculture be utilized as an attribute of agri-food gastronomic tourism? Chapter 1 provided the research background, introduced the research objectives and questions, and illustrated the dissertation structure in a model. The methods and methodology employed for this case study research were defined in Chapter 2. The researcher also outlined the purpose of this study and secondary data sources utilized in this research. Chapter 3 presented insights into agri-food gastronomic tourism, and in Chapter 4, the study presented permaculture theories and data relevant to the research's primary aim. Also, a story was provided in Chapter 4 as an example of how permaculture can be an attribute of the agri-food gastronomic tourism industry. Chapter 5 outlined sustainable tourism concepts and discussed how permaculture can be positioned within the broader context of the sustainable tourism industry.

As discussed in Chapter 2, this research employed abductive reasoning and a pragmatic paradigm, and thematic analysis was undertaken on collected data. The data were coded and combined into separate groups according to the word's literal connotations and themes generated from each group of combined keywords/codes. The framework used for data analysis is presented in Appendix D. This chapter compiles the themes and findings from the former chapters and explores them to determine whether they can be integrated with the key-findings of the study.

6.2. THEMES AND FINDINGS

This section is compiled from agri-food gastronomic theories and definitions presented in Chapter 3, permaculture definitions and statements from Chapter 4, and sustainable tourism definitions from Chapter 5, and recalled themes from the story in Chapter 4. The themes found from each chapter and the story are presented for further discussion in this section.

6.2.1. GASTRONOMIC TOURISM, REGIONAL AGRI-FOOD, AND RESTAURANT

Chapter 3 discussed theories and definitions of agri-food gastronomic tourism and explored the links between agri-food and gastronomic tourism. This chapter provides further insights into New Zealand's agri-food industry, which supports the country's gastronomic tourism sector. Definitions in Chapter 3 themes were also identified. This section discusses the themes of "gastronomic tourism," "regional agri-food," and "restaurant," which were developed from the content analysis. Themes representing regionality focus on contemporary agri-food gastronomic practices and position "restaurants" as facilitators of the contemporary gastronomic tourism industry. Data were analysed and grouped as per their linguistic and contextual meanings.

Gastronomic tourism and regional agri-food

These themes were found frequently in agri-food gastronomic tourism definitions. The word "tourism" connotes food and gastronomic industry activities, and "food" has links with "agri" (here defined as *agriculture*). Findings of Chapter 3 suggest that the origin of gastronomic tourism was in regional agriculture and agri-tourism (see Dixit, 2019), as regional agri-food tourism has strong links to regional gastronomic tourism (Ackovska et al., 2015) and agri-food tourism through its communal characteristics, and is aligned with food tourism, or in this case, gastronomic tourism (see Thomé-Ortiz, 2015). This kind of tourism may well be dependent on the agricultural system of a country (Berno, 2017a). Chapter 3 presented data that indicated the possibility of improving gastronomic tourism in a country. New Zealand should be able to present its agri-food products and production systems (Berno et al., 2020; Berno & Fusté-Forné, 2019) because its economy is largely based on its good quality agri-food products (Berno & Fusté-Forné, 2019; MFE, 2001; MPI, 2018). The keyword "gastronomic" connotes words that have similar meanings, such as: "culinary", "culture," "food", and "gastronomy", whereas "regional" connotes words that has similar meaning such as "New Zealand", "culture", "country", "international" and "local".

This research has analysed the agri-food industry as part of the gastronomic tourism industry and found that agri-food symbolizes the materialistic culture of a society that adds

value to non-agricultural activities such as gastronomic tourism, which enriches the economy of a country (see Dixit, 2019; Thomé-Ortiz, 2015). This theme was derived from codes for similar concepts, such as “agriculture and agricultural”, “farm and farms”, “dairy”, “permaculture”, “food forest”, “produce” and “products”.

Restaurant

“*Restaurant*” has been positioned as a contextual theme, because data from the literature presented in Chapter 3 showed that restaurants are major influencers in regional gastronomic tourism and utilized to address the gastronomic / food tourism culture (see Bertan, 2020; Spang, 2001). They are a part of the overall tourism industry (Kuchiki et al., 2017) and connect to the broader food and culinary tourism industry (Harrington & Ottenbacher, 2010; Veeck et al., 2016). Data presented in Chapter 3 suggest that, restaurants are involved in showcasing regional agri-food products through innovative foods served in their establishments. Restaurants therefore tend to be a significant component of agri-food and gastronomic tourism (Fanelli, 2020; Sznajder et al., 2009). The keyword “restaurant” was derived from codes with similar meanings such as “restaurant”, “farm”, “garden”, “market”, and “industry”.

Farms as agri-food producers and agri-tourism generators, grow and supply fresh foods and ingredients to restaurants, and restaurants as gastronomic tourism facilitators, generate gastronomic tourism through food service. Therefore, these themes reveal that regional gastronomic tourism is linked to its agri-food production systems, and restaurants are in the frontline, promoting the regional agri-food gastronomic industry and part of gastronomic tourism focused on agri-food tourism activities.

6.2.2. PERMACULTURE, NATURAL FOOD-PRODUCTION, COMMUNITY, AND TOURISM

Chapter 4 discussed permaculture theories, definitions, and design principles, and the Permaculture Flower presented in Figure 2 (see Bane & Holmgren, 2012; Holmgren, 2007; Mollison & Holmgren, 1990). This chapter similarly discussed permaculture practices and the possibilities for permaculture in relation to New Zealand’s agri-food gastronomic tourism industry. Themes from Chapter 4 were significant to this research’s

primary objective and were generated by analysing theories and definitions of permaculture and data collected from secondary sources such as permaculture organizations' website articles, and online newspaper and magazine articles. These themes are discussed next.

Permaculture

Permaculture is not a part of an ordinary agriculture system, but rather, it belongs to a specialized design system that mimics nature and is a natural way of producing food for a community (Mollison & Holmgren, 1990; Rhodes, 2012). Data suggest that permaculture practices have the potential characteristics for permanent utilization in food production systems. *Permaculture* has been described as a sustainable farming system that utilizes perennial farming for food production (Holmgren, 2007; Mollison & Holmgren, 1990). Permaculture farms can host similar agri-tourism activities that ordinary farms provide, so can be positioned within the sustainable agri-food tourism industry (Lia, 2015). The keyword “natural” was derived by compiling words with similar meaning, such as “nature and natural”, “forest”, and “garden”. The keyword “permaculture” was derived from “permaculture”, “farming”, “agriculture”, “permanent”, and “sustainable”.

In the literature presented the following themes were found to correlate with permaculture: “*community*” and “tourism”.

Community

This keyword represents the community engagement of permaculture practice that was extensively mentioned in permaculture related literature and data discussed in Chapter 4. Community building and community support are major influences on permaculture practice (Holmgren, 2007) and data from New Zealand's permaculture farms' website showed that community networking and food for local community were part of their activities. The full list is presented in Appendix C. This keyword was derived from words with similar meaning, such as “community and communities”, “people”, “permaculturists”, and “local”.

Tourism

This keyword was part of this theme because in Chapter 4 it was shown that permaculture practices are recognized as a part of agri-food tourism and gastronomic tourism in other countries, so in New Zealand, permaculture can also be part of the mainstream agri-food tourism industry. As discussed earlier in this chapter, gastronomic tourism includes restaurants and permaculture farms involved with the restaurant (see Chapter 4). These finding positions permaculture farms as patrons of gastronomic tourism in New Zealand. The keyword “tourism” was derived from words that had similar meaning, such as “activities”, “destination”, “market”, “restaurants”, and “tour”.

The holistic characteristics of permaculture positions it distinctively within the agri-food production and agri-food tourism industries. A permaculture system respects earth care. The Permaculture Flower (see Figure 2) presented in Chapter 4 was developed from the permaculture ethics and design principles presented in Appendix B, and propose that community building and enriching regional and local economies through agriculturally based tourism activities, can have positive impacts on earth care (Holmgren, 2007). Therefore, *permaculture practices* are recognized in this research as a natural, eco-friendly food production system that creates self-sustaining communities and presents food as a foundation of tourism activity.

6.2.3. SUSTAINABILITY, REGENERATION, AND FOOD

The concept of sustainable tourism and the role of permaculture in sustainable tourism in New Zealand were discussed in Chapter 5. Themes were identified by analysing the sustainable tourism definitions, theories and statements presented in Chapter 5. The objective of Chapter 5 was to explore sustainable tourism approaches and permaculture related activities that can be positioned as sustainable tourism in New Zealand. Using thematic analysis, themes were generated; these themes were “sustainable”, “regenerative” and “food”. Themes from Chapter 5 are discussed next.

Sustainable

Analysis of the data presented in Chapter 5 showed that New Zealand's sustainable tourism industry has been governed by a sustainable tourism agenda (see Becken, 2020) and the sustainable tourism commitments proposed by the tourism industry (TIA, 2020a). However, numerous arguments have been made over the past years, that not all tourism in New Zealand is sustainable in nature. The theme "sustainable" was derived by analysing data in Chapter 5, containing words and subtexts with similar connotations such as "sustainability", "environmental", and "innovative".

In the literature mentioned, the following themes were noticed to correlate with "sustainable". They are "regenerative" and "food".

Regenerative

This theme was developed from the words with similar connotations, such as "permaculture", "natural", "holistic", "perennial". In Chapter 5 regenerative tourism was considered to be aligned with permaculture practice.

Food

This theme is part of sustainable tourism through agri-food production and food tourism functions in New Zealand (DOC, 2016, 2020). The data found in Chapter 5 provided the insight that regional food can generate sustainable tourism contributions in a locality (see Holmgren, 2007). The keyword "food" was derived by analysing the data in Chapter 5 with similar characteristics, such as "farm", "agri-food", and "food-tourism".

New Zealand promotes its sustainable tourism commitments (TIA, 2020a) and wishes to uphold concepts of sustainability in all sectors of tourism. The data suggest that permaculture's sustainability characteristics can position in permaculture in the regenerative tourism industry of New Zealand. New Zealand's food tourism industry is also working to uphold its sustainability commitments through sustainable agri-food production systems (DOC, 2016, 2020). Therefore, permaculture practice, as a sustainable agri-food production system, can be utilised within the sustainable tourism industry of New Zealand.

6.2.4. STATE-OF-THE-ART AND LOCAL CHAMPIONS

In the search for permaculture practices that connect a small part of New Zealand's agri-food gastronomic tourism, Pakaraka Permaculture was found to be associated with the agri-food production industry, working as a permaculture farm as a relatively new garden market in the North Island. While tracing its story, it was also found that Pakaraka not only provided agri-food tourism activities for local people, but supplied good quality, sustainably produced foods from its farm. At this point this research was close to finding a link between permaculture and agri-food gastronomic tourism, to determine the potential for permaculture to be a part of the gastronomic tourism industry in New Zealand.

A study was therefore made of a magazine article which was the story's data source (see Stone Soup, 2018) to explore the potential for a permaculture food trail. Two restaurants were found to be contributing to gastronomic tourism in Auckland, and were connected to Pakaraka Permaculture farm (Stone Soup, 2018). Numerous connecting dots moved the research forward from that point. While focused on gastronomic tourism activities, the researcher located and analysed articles on the two restaurants, Orphans Kitchen and Pasture. They had the required characteristics to answer the questions in this research.

The relevant characteristics of Orphans Kitchen were its commitment to sustainable practices and the local food movement, while supporting permaculture practices (Orphans Kitchen, n.d.; Stone Soup, 2018). Those of Pasture were its inspiration, New Zealand's landscape and its sustainably grown local food and ingredients and innovative nature (Stone Soup, 2018). The stories of Pakaraka Permaculture garden market, Orphans Kitchen, and Pasture were well recognized by numerous gastronomic influencers in New Zealand ("Getting started with permaculture in New Zealand" 2019; Cuisine, 2019b; Permaculture in NZ, 2020; Metro, 2019). Their stories revealed four significant themes during the analysis; these themes are overviewed next.

Recognizability

The importance of the permaculture farms and their produce was recognized by the restaurants. As Laura Verner mentioned, the "permaculture approach [of Pakaraka

Permaculture] is remarkable”, providing “epic produce to work with” without which “we know we can’t run a restaurant with ambition like ours” (Stone Soup, 2018, paras. 11–13).

Innovativeness

Permaculture farms were constantly evolving ways of natural farming. Permaculture practitioners are motivated by the inspiring and innovative cuisine prepared in restaurants by the chefs they work with.

Regionality

Pakaraka Permaculture was known to source the best quality local food, and be “farming to have a positive effect on their land and their community” (Stone Soup, 2018, paras. 11–13).

Advocacy

Laura Verner cited “Pakaraka as a shining example” (Stone Soup, 2018, para. 13), and Orphans Kitchen as showing a “strong will to support permaculture farm” (Hallinan, 2017).

Luminary

Pakaraka Permaculture has been recognized by local and international visitors (Television NZ, 2019) as well as Orphans Kitchen and Pasture. Orphans Kitchen was recognized by *Cuisine* a gastronomic awarding body (Cuisine, 2019a). Pasture has also achieved multiple awards in the past years, and is now positioned as the best fine dining restaurant in Auckland (Metro, 2019), winning the “Cuisine Innovation Award” also “3 Hats” by *Cuisine* (Cuisine, 2019b).

These themes were drawn from the stories of the three gastronomic tourism generating establishments that showcase permaculture practice as an improved food production system that provides fresh food ingredients essential for creating unique gastronomic tourism experiences.

6.3. SUMMARY

This chapter elaborated on the themes emerging from data analysed in earlier chapters and summarized the research findings. The findings suggest that the gastronomic tourism of a country is supported by its agri-food industry, and permaculture (as part of the agri-food industry and having sustainable characteristics) should be utilized within the agri-food gastronomic tourism industry. Gastronomic tourism facilitators such as restaurants, recognise the importance of permaculture farms producing superior quality food, and are open to working with permaculture practitioners to enhance their service quality. From a sustainable tourism point of view, permaculture is also recognized as a tourism generator. Themes generated from the case study showed links or similarities with themes found in other chapters. Furthermore, each chapter and story suggested that permaculture has the appropriate characteristics to be positioned within the agri-food gastronomic tourism industry. In the next chapter, this research draws conclusions, presents the study's limitations and provides recommendations for the future.

CHAPTER 7: CONCLUSION AND RECOMMENDATION

This chapter concludes the dissertation by summarizing key findings while answering research questions in the process. The chapter also provides the research limitations and discusses recommendations for future research.

7.1. CONCLUSION

This research questioned whether permaculture could be utilized as an attribute of agri-food gastronomic tourism in New Zealand. To answer this question, the research evaluated the role of agri-food tourism in gastronomic tourism. This was followed by a review of permaculture theories, defining what “permaculture” is and what it looks like in New Zealand, and how it could be positioned within the broader context of sustainable tourism in New Zealand. While doing so, the research also considered the overall profile of gastronomic tourism in New Zealand and what permaculture tourism in New Zealand looks like.

Based on a qualitative and thematic analysis of relevant literature and data found in secondary sources, it can be concluded that permaculture farms can be positioned as an attribute of the agri-food gastronomic tourism industry of New Zealand, as agri-food growers and producers. Similarly, permaculture farms have similar features to other farm based agri-tourism facilitators. Also, because of its community building, earth care, nature care and other holistic characteristics, permaculture can be positioned within New Zealand’s broader context of sustainable tourism. Similarly, this study found qualities of permaculture practices that can be utilized in the gastronomic tourism industry. For example, its natural way of producing food has been a major influencer in the gastronomy industry and has recognition among restaurant owners and chefs for the quality food ingredients produced by permaculture farms. Permaculture is also recognized by tourism researchers as a regenerative approach for creating tourism destinations.

Therefore, permaculture is located in this research as an agri-food producer and agri-tourism provider, with potential connections to the restaurant industry, which promotes gastronomic tourism in New Zealand. Data on the studied restaurants suggest the

possibility of positioning permaculture practitioners as quality food ingredient growers, within gastronomic tourism industry. This study also revealed the possibilities of positioning permaculture as a sustainable tourism product that can be utilized within the regenerative tourism and sustainable agri-tourism in New Zealand.

This case study research has provided theoretical and practical insights into agri-food, gastronomic tourism and their possible links to contemporary permaculture practices. In this research, permaculture is positioned within the agri-food production industry and as part of agri-food gastronomic tourism in New Zealand. New Zealand takes pride in its agri-food production sector and motivates the tourism industry to uphold sustainable practices. This research therefore suggests that permaculture practice can be utilized as a food production system of New Zealand's agri-food production, and as a part of agri-food tourism and New Zealand's broader gastronomic tourism.

7.2. LIMITATIONS AND PROSPECTS

This research was conducted over a necessarily short period of time with a limited sample. The research produced positive answers to the research question but with few arguments on the topic due to limited data based on New Zealand's perspective. This research produced general research findings with simple and straight forward answers. However, the limited availability of New Zealand based academic literature and articles on permaculture constrained the research. There are few studies related to permaculture in gastronomic tourism in New Zealand published in academic journals. Various data were found focusing on the holistic aspect of permaculture practice; that is articles and literature were focused on the positive aspects of permaculture practices, which generalized the research findings.

Also, due to the limited amount of literature opposing permacultures' holistic nature, it was difficult to generate divergent arguments about permaculture practices. With little debate on the objective, the research was limited to using a comprehensive account of permaculture research, which may have developed only a general understanding of the subject. In qualitative research, generalizing findings is not the objective, so there was no intention to generalise, but just to create new research interests for the future.

Gastronomic tourism requires continued research to understand the contemporary phenomenon surrounding the subject (Dixit, 2019). The current COVID-19 pandemic has closed the borders of many countries but opened many future prospects for similar research which focuses on small scale, innovative, sustainable approaches, for the betterment of gastronomic tourism. Indeed, it has been suggested in a recent article (see Becken, 2020), that small scale regenerative approaches could open up new opportunities for tourism destinations and improve local economies (Becken, 2020). This research has utilized secondary data; however, collecting data from primary sources from more operators that is, with an increased sample size, could enhance the observations made in this study. Comparative case studies with overseas permaculture in tourism can be found in secondary sources, but none has focused on New Zealand gastronomic tourism. This was a major drawback while conducting this study. Nevertheless, this finding clearly contributes to the fact that permaculture as a part of gastronomic tourism in New Zealand needs more research at an academic level and in the agri-food gastronomic tourism industry of New Zealand.

7.3. RECOMMENDATIONS

The prospects of permaculture in agri-food gastronomic tourism of New Zealand requires more than just recognition by academics. This food production system has the potential to be utilized in many countries and specifically in New Zealand's agricultural and tourism and gastronomic industry. New Zealand's economy is based on its agricultural and tourism activities, and this country cares for its natural beauty; accordingly, New Zealand's agriculture and gastronomic tourism industry could utilize permaculture's holistic characteristics.

The positive features of permaculture practice that create a sustainable future through a natural food production system, could be studied from different perspectives within the gastronomic field to enhance the understanding of permaculture in gastronomic tourism. For example, permaculture facilities could be further investigated as agri-tourism destinations and placed in the agri-food production sector through case studies similar to those in this research. Food tourism researchers could utilize the concepts of

permaculture practice as a part of producing a sustainable, superior, quality food source. Restaurant based research can utilize permaculture as part of regionality-based food sources and study this phenomenon to engage more restaurants in sustainable tourism practices.

This research has provided an insight into permaculture practice and placed it within the agri-food gastronomic tourism industry. Future studies on agri-food gastronomic tourism and permaculture in agri-food gastronomic tourism could utilize this study as a baseline to support permaculture practices within gastronomic tourism in New Zealand.

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APPENDICES

APPENDIX A: KEYWORDS AND DATA SOURCES

APPENDIX A.1: KEYWORDS USED FOR DATA SOURCES

Keywords
Agri-food Farm Food Gastronomic New Zealand Permaculture Restaurant Sustainable Tourism

APPENDIX A.2: DATA SOURCE

Data Type	Database/Source	Description
Academic Literature and Journal Article	EBSCO, JSTOR, ScienceDirect, CABI Leisure Tourism, Emerald Fulltext, SpringerLink, Taylor & Francis Online and Google Scholar	Gastronomic and Agri-food related academic literatures and journal articles.
Newspaper & Magazine Article	https://www.nzherald.co.nz https://www.stuff.co.nz https://www.adam.nz https://www.permaculturenews.org https://www.stonesoupsyndicate.com	Stories and Interview conversations
eBooks	ProQuest, EBSCO eBook collection and Library Search	The Physiology of Taste, The Routledge Handbook of Gastronomic Tourism, Agritourism.
Encyclopaedia article	SAGE Research Methods	Encyclopaedia of Case Study Research, SAGE Research methods
Media File	https://www.youtube.com	Conference proceedings, Documentary media file.
Organizational/industrial webpage article and reports	www.stats.govt.nz https://www.beehive.govt.nz https://www.doc.govt.nz https://www.pakarakafarm.co.nz https://pastureaki.com https://orphanskitchen.co.nz	Permaculture farm website, Restaurant information, industrial reports, Statistical data

APPENDIX B: PERMACULTURE DESIGN PRINCIPLES

PERMACULTURE DESIGN PRINCIPLES

PDP KEYNOTES	NARRATIVES
OBSERVE AND INTERACT	Good strategy depends on maintaining a 'harmonious relationship' amongst human and nature, by 'reading the landscape' and understanding the design.
CATCH AND STORE ENERGY	'The need and opportunity to take advantage of surplus energy' to invest in the 'long-term natural capital'.
OBTAIN A YIELD	Generating consciousness within overall system 'to be designed to be productive in some way and replicate the system that generates the yield'.
APPLY SELF-REGULATION AND ACCEPT FEEDBACK	'Self-maintaining and regulating systems that limit or discourage inappropriate growth or behaviour'.
USE AND VALUE RENEWABLE RESOURCES AND SERVICES	The use of resources which renews and restores by natural order to maintain yields without the use of excavated resources and fossil fuel.
PRODUCE NO WASTE	'Make use of all outputs' provide useful solutions so that one can be sustained by other system.
DESIGN FROM PATTERNS TO DETAILS	'Apply a pattern from one context and scale to design in another' according to 'a site-specific character to comprehend the larger picture'
INTEGRATE RATHER THAN SEGREGATE	Share the integrated knowledge, to create a better method and system to 'design communities of people, plant and animals'
USE SMALL AND SLOW SOLUTION	Design to create a net of small-scale activities that builds a strong community of self-sufficient nature.
USE AND VALUE DIVERSITY	Diversify the output to create safety against natural imbalance created by human activity.
USE EDGES AND VALUE THE MARGINAL	'Edges are dynamic and productive parts of all-natural systems where exchange of materials and energy take place' that increases the productivity gradually.
CREATIVELY USE AND RESPOND TO CHANGE	Designing to make use of change in a deliberate and co-operative way and creatively responding or adapting to large-scale system change which is beyond our control of influence

Note: Reprinted from *Essence of Permaculture (Revised ed.)* by David Holmgren, 2007 (pp. 10–29). Copyright 2007 by Holmgren Design.

APPENDIX C: SMALL SCALE PERMACULTURE PRACTICES IN NEW ZEALAND

Organization Name	Type of organization	Tourism activities offered	Location
Blockhill	Permaculture farm	<p>Day trip workshop: Scythe use, Māori basket weave, farm trips, forage scaping, effective fire making.</p> <p>Work exchange programme: Permaculture learning and farm stay.</p>	North Canterbury, South Island.
Omarama Oasis	Permaculture Glamping	Permaculture garden stay and glamping	Pohara, Tasman.
Muntanui	Permaculture farm	Sustainable living, saffron farming, cattle breeding	St Arnaud, Nelson Lakes.
The Food Farm	Permaculture farm	Food growing workshop, Composting workshop	Broomfield
Habitate	Permaculture designer and fruit nursery	Food forest and permaculture garden designing with consultancy	Waitati, Otago
Golden Bay SLC	Sustainable living centre	<p>Workshops: Permaculture, sustainable living, woodfire pizza making, kombucha making</p>	Takaka
Kaiapoi Food Forest	Community food forest	<p>Workshops: Permaculture design, sustainable food production</p>	Kaiapoi, Rangiora
Institute of Earthcare Education Aotearoa	Education institute	Community building. Localizing food project. permaculture design course and workshops	Tata Beach
Te Paranui	Permaculture homestead and animal sanctuary	Permaculture practice, farm stays, cooking workshops	Koromiko
Ohau Gourmet Mushrooms	mushroom grower	Mushroom growing, recipe shares, sustainable living tips	Ohau
Holbrook Forest Garden	Organic food forest and flower farm	Garden tours, flower sales, edible flower grower	Carterton, Wairarapa

Organization's Name	Type of organization	Tourism activities offered	Location
Kahikatea Farm	Permaculture farm and organic nursery	Growing and selling plants, salad grower. Workshop and courses: Permaculture design and food forest workshops, Seed sowing workshop, edible garden starter workshops Day tour: Farm tours	Hawke's Bay
Pukahu	Permaculture farm and accommodation	Food growing, food processing, WWOOF hosting	Kaiwaka, Northland
Pakaraka Permaculture	Permaculture farm and garden market	Food growers, salad garden. Farm tours, permaculture workshops	Pakaraka, Thames
Permablitz of Bay of Plenty	Permaculture event group	Permaculture and gardening workshops, community networks	Western Bay of Plenty

Note: Small scale permaculture practices in New Zealand. Produced from Blockhill, et al., 2020. Copyright 2019, 2020 by Blockhill et al.

APPENDIX D: DATA ANALYSIS FRAMEWORK

Code no.	Codes	Theme links with code by code number	Themes according to serial number	Key concept link by theme number	Key Concept with serial number	Research Question number linking key concept	Research chapter linkage with key concept number
1	Culinary, Food, produce, product, gastronomy	1, 2, 3, 6, 7	1. Gastronomic tourism, regional agri-food, restaurant	1, 2, 3	1. Agri-food gastronomic tourism	1	3
2	Culture, country, New Zealand, Local, International						
3	Permaculture, farm, food forest, restaurant,						
4	Permaculture, Sustainable Community, Tour, Destination	2, 3, 4, 6, 8	2. Permaculture, natural food-production, community, tourism	1, 2, 3	2. Permaculture in agri-food and gastronomic tourism	2 and 3	4
5	Representing New Zealand's food and culture	1, 2, 3, 4, 5, 6, 7, 8	3. Recognizability, innovativeness, regionality, advocacy, Luminary				
6	restaurant affiliation						
7	Gastronomic tourism focus	2, 3, 4, 5, 8	4. Sustainable, regenerative and food	2, 3, 4	3. Permaculture in sustainable tourism of New Zealand	2 and 3	5
8	Innovative, Holistic, Perennial						

Note: Data analysis framework.