



From a Pigsty to Rak An Coffee, Khon Kaen Province, Thailand (1955 – 2021)

Jarinya Phoosaengsri¹, Phatphong Wannaphuek², Sasiphat Kosasang³, Waraporn Gongkhot⁴,
Siwakorn Ratchompoo^{5*}, Keeratiporn Jutaviriya⁶

^{1,2,3,4}Sociology and Anthropology Department

^{1,2,3,4}Faculty of Humanities and Social Sciences, Khon Kaen University, Thailand

^{5,6}Center for Research on Plurality in the Mekong Region (CERP)

*Email: siwakorn.r@kkumail.com

Abstract

This article aims to study the changing dynamics of Rak An Coffee since it was a pigsty in 1955 until it becomes Rak An Coffee at present. The data from the literature review and the oral history study were analyzed and synthesized. The results showed that Overseas Chinese migrated to the northeastern region of Thailand by railway. Following the construction of the railway system in 1932, the "Zhu" family began to participate in cattle and pig breeding as part of their business in Ban Phai District, Khon Kaen Province. In 1995, their business was expanded into Khon Kaen City. In addition, the pigsty was built near the Khon Kaen Railway Station to facilitate the transport of pigs by rail. Later, when the Thai state formulated the urban development policy according to the First National Economic and Social Development Plan (1961-1966), Khon Kaen City became modern. The pigsty must be adjusted under the developmental context. Pig farming cannot be conducted in rapidly expanding metropolitan settings. As a result, the pig farming business was discontinued in 1985, and it became a dwelling for Chinese families as economic and social progress developed. In 2017, the Smart City strategy focused on urbanization in Khon Kaen, resulting in a shift in the occupational way of life that must be in accordance with the contemporary urban setting. In 2020, "Rak An" Coffee was established under the presentation of the city identity that is linked to the way of life in history, multiculturalism, and local architecture.

Keywords: Pigsty, Rak An Coffee, Khon Kaen city, economy



1. Introduction

Thailand has become a country with continuous economic and social development, resulting in the expansion of cities in various regions, especially in the large urban areas such as Khon Kaen Province, which is an important province in the northeastern region and has been expanding rapidly since 1961. According to the First National Economic and Social Development Plan, Khon Kaen Province was the first province that was designated as the development center of the Northeast. The industrial development plan was set and a new city plan was created. For example, the city hall was relocated, and a new government center was built to gather various government agencies in the same place. As a result, various areas within Khon Kaen City were undergone physical changes. The urban areas were expanded widely. Also, there was an increase in investment in business and the railway lines were constructed. As a result, Khon Kaen Province has become an important economic area. In particular, the emergence of railway lines has resulted in a change in the economic activities of the community due to the readiness of both location and transportation. It is considered an important strategy to promote the growth of Khon Kaen City, and to build on Khon Kaen City to have the potential to be a hub for transportation in the field of medical and public health services. In terms of education, there was the establishment of the first higher education institute in the Northeast and the administration of government agencies at the regional level (Nunthaphot Boonprasith and Vissanu Zumitzavan, 2019). Therefore, Khon Kaen City has the potential to develop spatially to support the expansion of the city in the future and it has grown rapidly until it has evolved into a Smart City today.

Over the past decade, after continuous development according to the National Economic and Social Development Plan, many areas within the province have been used more for economic benefits, coupled with the entry of capitalism and consumerism. This can be seen from the tastes of people tending to value consumption of signs, especially the popular trend of drinking coffee that has become part of the daily life of people in urban communities, leading to the opening of many coffee shops with modernity. Especially in Khon Kaen City, there are many coffee shops that meet the needs of consumers. These shops are both franchises decorated with black and white tones, showing the modernity, and the coffee shops with their own unique identity, such as Rak An Coffee, which presents distinctive feature that is different from other general coffee shops. It preserves the original architecture of the wooden house in harmony with modernity, connecting the past and the present seamlessly. As a result, Rak An Coffee has become “a remembrance area” that can be brought up to explain and present the historical development of the local area, which is Khon Kaen City, in an interesting way. In addition, from the study of Khon Kaen City in the past, the study describing the development or transformation of a city through location and memory has not been found. Therefore, the researchers were interested in studying this dimension from oral history. The data from the interviews with the key informants with experiences and memories with Rak An Coffee and the document study such as articles, books, related research and information from the internet were used to present the study results, describing the phenomena of the chaining dynamics of Khon Kaen community through Rak An Coffee under the study from a pigsty to Rak An Coffee (1955–2021).



2. Context of Khon Kaen Province

Khon Kaen Province is located in the center of the northeastern region. It is a province that has developed and expanded rapidly. In 1961, according to the First National Economic and Social Development Plan, Khon Kaen Province was the first province designated as the development center of the Northeast (Kaewta Jantranusorn, 2008, p. 102). As a result, Khon Kaen is the center of prosperity in education, trade, investment, human resource development and transportation (Nunthaphot Boonprasith and Vissanu Zumitzavan, 2019). With the potential to be the center of such prosperity, Khon Kaen Province is a target area for businessmen and entrepreneurs. So, many areas in the province are exploited economically, resulting in the expansion of urbanization due to the increasing number of people immigrating to live in the province. Khon Kaen City has been developed to be a Smart City, focusing on the development of mobility as a top priority in order to be in line with the province's policy that focuses on being a center in 3 main areas, namely a rail city, a medical hub and a MICE City (TerraBKK, 2019). Because of the entry of capitalism and consumerism, people's lifestyles and consumption tastes have changed. This can be seen from the tastes of consumers who tend to value consumption of signs over subsistence consumption, especially the popular trend of drinking coffee that has become part of the daily life of people in urban communities, leading to the opening of coffee shop business with modernity to meet the needs of consumers. Most of the coffee shops are decorated in a minimal style with a white tone that is perfect for taking pictures. At the same time, some coffee shops have created their own identity to attract consumers' attention and increase economic opportunities like Rak An Coffee that offers different highlights from other shops by preserving the wooden house that is about 66 years old, which was used as a place to raise pigs in the past as well as relatives' homes and grocery stores. It had been abandoned before being renovated to become the Rak An Coffee at present.

3. The prosperous era to the change of the pig farm business (1955-1987)

At the end of the reign of King Rama VI, the northeastern railway line was built, reaching Ban Phai District in 1932. Chinese people living around the railway station occupied a large number of areas for running their career (Suwit Theerasawat, 2008: 428). Mr. Pengmong Zhu was also one of them. Mr. Pengmong was of Teochew descent. He immigrated from Guangdong, China, and settled in Thailand at the age of 20. He married his first wife and had four children. One of them is Mr. Prasert Jutaviriya, engaging in personal business. When Mr. Prasert entered the education system, he had to change the surname from Zhu to "Jutaviriya". Later, Mr. Prasert was married to his wife, who was a nurse at that time, and had five children: three daughters and two sons. The daughters are engaged in trading and working for companies in Bangkok. One of the sons is Mr. Prakit (a key informant) who runs his own business. He is married to Mrs. Keeratiporn Jutaviriya, and they have two children.

The Zhu family started their career in trading and raising pigs in Ban Phai District, Khon Kaen Province. Later, when the railway line was extended to Khon Kaen City in 1933, Mr. Pengmong decided to expand his family's traditional occupation of pig farming from Ban Phai District to Mueang Khon Kaen District. In 1955, a shophouse was built on Darun Samran Road

close to Khon Kaen City Pillar Shrine and Khon Kaen Railway Station. It was used as a residence for relatives from China. Also, at the back of the shophouse, it was used as a pigsty.

The business was operated in the form of a family business, relying on the labor of the family members and relatives in running the pig farm business. At first, there were 20 pigs. Later, the number of pigs was increased according to the area of the pigsty that can accommodate no more than 40 pigs. Most of the food used for raising pigs was leftover food from the household such as food scraps and vegetable scraps. *“Every day, we put the buckets in front of the houses we wanted to ask for food scraps. Most of them were the houses in the same neighborhood. Then in the morning of every day, we had to bring back the buckets filled with food scraps to feed the pigs”* (Prakit Jutaviriya , personal communication , 24 August 2021). This reflects the strong relationship of people in the community at that time. They always helped each other. However, many families in the area also raised pigs. As a result, the food waste used in raising pigs was insufficient. Sometimes, they had to buy rice bran from a nearby mill for feeding pigs.

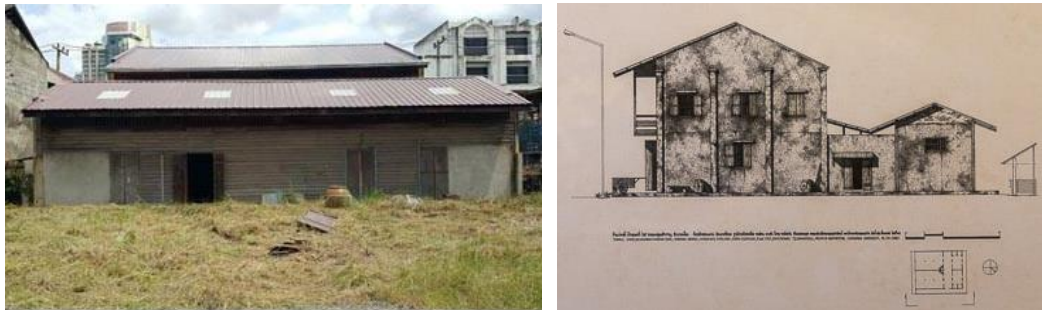


Figure 1: Pigsty

After raising pigs for about 3-4 months, the middlemen from Bangkok would come to buy pigs by train. They would contact and trade pigs through the middlemen or the merchants in the area. “Talat Noi Community” was a popular place for trading since many families engaging in pig farming business like the family of Mr. Pengmong Zhu lived in the community. There were also vendors selling various kinds of products, most of which were general consumer products that were popular among Thai people of Chinese descent in the area. Therefore, the community in this area was one of the most important economic districts of Khon Kaen Province during that period, together with the area of Srichan Road. At that time, the pig prices were quoted at 7-13 baht per kilogram. Pigs were sold without being slaughtered due to the delayed transport system and the technology used to preserve food. The freezer at that time was not very efficient, so the pork could be spoiled. When the deal was finished, the herd of pigs was driven into the alley beside the shophouse to be transported to the train station that was only 300 meters away from the shophouse. It can be observed that time Thais of Chinese descent who came to trade in Khon Kaen Province had to rely on the rail transport and the ability of the merchants in the area in learning the channels of dealing with trade as well as the sources of important products. In addition, these merchants were able to understand the needs of consumers in different areas very well because they were local



merchants with expertise in the area and had a wide range of social networks)Kaewta Jantranusorn, 2008, p. 98).

The transport of pigs was mainly via the railways since trains played an important role in transporting a wide variety of agricultural commodities (Suwit Theerasawat, 2008: 438). It was found that pigs were the agricultural commodity that accompanied the arrival of railways. The middlemen would sell pigs to Chinese people living along the railway lines, such as the Chinese in Korat. The most important thing is that the way Chinese people consume pork is associated with beliefs related to pigs. For example, the pig's head is an important symbol of offerings to pray for blessings from the gods for good fortune. Since the ancient time, three types of animals raised in the home, namely cows, goats, and pigs have been used in Chinese rituals of worshiping gods. Therefore, pigs are considered auspicious and symbols of good luck according to Chinese beliefs. It is also a symbol of fertility and a medium of prosperity and good fortune. For these reasons, the pig farming business in the city since 1955 had grown continuously which was able to generate income for the Jutaviriya family. In the meantime, the Jutaviriya family also ran other business, such as Rak An Pharmacy, apartment business and Rak An Gold Shop. However, when there was the urban development policy promoting modernization in transportation, medical and public health services, and education with the establishment of the first higher education institute in the Northeast and the administration of government agencies at the regional level, the pig farming business in the middle of the city caused a problem of cleanliness and unpleasant odors disturbing the urban community and was no longer popular like in the past.

In 1958, after Field Marshal Sarit Thanarat had staged a coup d'état and appointed himself as Prime Minister and the First National Economic and Social Development Plan was prepared in 1961, Khon Kaen Province was designated as the development center of the Northeast. The goal of development was "to upgrade and improve the necessary infrastructure to support the expansion in the industrial and service sectors". So, Khon Kaen City began to change. There was an expansion of the city, and the business sectors were growing.

The activation of Mittraphap Road on January 28, 1965 became a major turning point for the Northeast because the road allowed people to easily access various areas and be able to distribute products evenly. As a result, rail transport became less popular due to its delays and limitations such as the concentration of prosperity and the time constraints that were uncertain when traveling, especially in the area where there were train stations. So, the distribution capacity of the products carried by trains and the markets located far from the train stations caused limited access to goods. Consequently, people changed their behavior and transported agricultural products and traveled by the roads. During this period, the Jutaviriya family's pig farm was also affected. In addition to the shift in popularity from railways to highways, the pig farm also caused pollution problems. In 1980, more people began to migrate to settle in Khon Kaen Province)Kaewta Jantranusorn, 2008, p. 151), so more people lived nearby the pig farm. Moreover, the pig farm did not have a hygienic management system, causing water and air pollution problems from the discharge of wastewater outside the pigsty without sewage pipes. Also, during the rainy season, the wastewater flew through the neighborhood community, causing an unpleasant smell from wastewater and pig droppings in the pigsty. As a result, there were many flies. Although the

Jutaviriya family's pig farming business had existed since 1955, the problems mentioned above were not resolved. They were complained many times by people living around. In addition, the family did not have time to take care of the pig farming business because they also ran other businesses, and the relatives who used to help run the pig farm had their own families. Therefore, there was no successor. So, this business was closed down in 1985.

4. From the gold shop - drugstore to Rak An Coffee”, a half coffee shop, half museum

Between 1935-1937, Khon Kaen Municipality was established with the responsible area of 4.031 square kilometers. The waterways and the roads around the city are under the municipalities. Then the infrastructure was developed during 1937-1943. The budget to support construction was also received more from foreigners. Later in 1950, there was a hospital in Khon Kaen Province. Electricity was first used in the municipality which was generated by electric generators. The water supply was also set up. Water was pumped from Ban Kut Kwang and sent to produce tap water at the Waterworks Authority located on Ruen Rom Road adjacent to the current night market (Kaewta Jantranusorn, 2008, pp. 90-91). From such development, as the mother of Mr. Prakrit Jutaviriya who was the wife of Mr. Prasert Jutaviriya working as a nurse at that time had the right to dispense medicines to patients, and the aunt who worked as a pharmacist helped dispense modern medicines to customers, Mr. Prasert's family realized an opportunity to generate income. Therefore, they opened a drug store, named Rak An Pharmacy in 1965.



Figure 2: Rak An Sign

The words “Rak An” are from two Chinese characters: Le (樂) which means fun, and An (安) which means safe and comfortable. When the two words are combined, it means that “It is a store full of fun and safety” (Sootharwan Intarapanich, 2021).

In the year, 1967, the government had a policy to promote investment in the business sector. This caused the expansion of the land trading business that created a new base of wealth, especially among traditional Chinese-Thai businessmen and high-ranking government officials who had foreseen the development plans before. Thus, the new business group, consisting of businessmen, civil servants and soldiers who gained wealth from the purchase of land, the investments in utilities and other war-related businesses was created. As a result, economic prosperity gradually spread to lower-level societies (Kaewta Jantranusorn, 2008, p. 121). Most of the Chinese, at that time, were skilled in trade and cultivation. They were also hired or engaged in various occupations with



diligence, patience, and willingness to do business until they can own pawnshops, cloth shops and jewelry shops)Supatra Yothinsirikul , 2018, p.206(. There were also skilled goldsmiths. As a result, there were many gold shops in the Chinese area. Mr. Prasert Jutaviriya, a son of Mr. Pengmong Zhu, decided to open his own gold shop in 1978, named after the pharmacy business which was “Rak An Gold Shop”. This business was separated from the family’s gold shop, so he had knowledge about running the gold shop from the family. He brought the gold processing tool, called “Kha-ta” (in Thai) that was used for blowing and melting gold to use in his gold shop (Currently, this equipment is displayed at Rak An Coffee). Later, Rak An Gold Shop is run by his son, Mr. Prakrit Jutaviriya.

Because Khon Kaen Province was the development center of the northeastern region according to the government policy, in 1995, Khon Kaen was upgraded from Khon Kaen Municipality to Khon Kaen City Municipality. As the development progressed, it had an impact on the pig farm business. Then the pig farming business was discontinued in 1987. It was changed to an accommodation for the relatives to live and open a grocery store. In the past decade, before the outbreak of the Covid-19, the trend of developing an urban area to be a Smart City was becoming more popular, especially in many big cities such as Khon Kaen, Chiang Mai, Songkhla and Phuket. But Khon Kaen is the first city that started developing the city in earnest. The development of Khon Kaen City is also different from other cities as it has relied on the cooperation from the private sector in playing a greater role in the development of their own locality with the support from the local government. As a result, the development is efficient and meets local needs. Especially, the focus is on the development of mobility as a top priority consistent with the province’s policy that focuses on being a center in 3 main areas: a rail city, a medical hub, and a MICE City (TerraBKK, 2019). Khon Kaen City has been developed to grow by leaps and bounds until it can be a Smart City in 2018-2021. According to the development plan of Khon Kaen Province, many areas in Khon Kaen are being used more economically, leading to the opening of new businesses, especially coffee shops, which are currently very popular because it is to make an empty space to be economically useful. For this reason, Mr. Prakrit Jutaviriya opened a coffee shop, called Rak An Coffee, which preserves the original architecture as much as possible. Also, due to his love for coffee, he decided to change the old wooden house that used to be a pigsty, which is about 66 years old, into Rak An Coffee. The name “Rak An” is from the name of a drug store and Rak An Gold Shop.

Rak An Coffee is a two-storey wooden house located at 28 Darun Samran Road, Nai Mueang Subdistrict, Mueang Khon Kaen District, Khon Kaen Province. It is open from 8:30 a.m. to 5:00 p.m. It has been renovated to preserve its contemporary style. Assoc. Prof. Kunlasri Thungsakul and Assoc. Prof. Nopadon Thungsakul, Ph.D., the architects from the Faculty of Architecture, Khon Kaen University and the team designed this coffee shop under the concept of “New in Old & Old in New: Art in Khon Kaen Modern Architecture at Rak An Coffee”. The house is adjusted to be properly suited the modern era. But the wooden house and the original structure of the house that is blended with modernity perfectly are still maintained. The atmosphere of an old Chinese wooden house can be felt inside the shop because it is the house of Chinese people. Building a house in those days was carried out with attention to detail. The hidden meanings and



the wisdom of the builders of the past were also used in the construction. For example, Burmese Sal wood and Afzelia wood were used to build the house because they were hardwood that was strong and easy to find in the area. Every pillar of the house was glided with the gold leaves. This was different from the belief of the Isan people that only the main pillar and the master pillar of the house would be glided with the gold leaves. The furniture used in the house since the past era, such as chairs, tables, red jars, pantry and shelves, is also used in Rak An Coffee. The details of ancient Chinese building architecture, such as the wall of the house made of ancient Mon brick before being plastered with cement, are also exhibited. The items that are hard to find nowadays such as dragon jars crafted by Khon Kaen people are also presented with the aim to commemorate Thai people of Chinese descent in Khon Kaen Province. It can be said that Rak An Coffee has become **a remembrance area** for Khon Kaen people of Chinese descent, especially the elderly and the middle-aged people who have experienced the events that have already happened or even the general people who live in Khon Kaen Province that want to go back and think about the traditional way of life that was in their memories and the feelings that have been lost. Due to the development of Khon Kaen Province, there has been progress in various fields, causing rapid changes. One dimension that often arises is the way people in society yearn for the past where they can live a life that was not hurriedly or very competitive like today. But it does not mean that they want to go back to that state. These people just want to revisit their memories of the tools they used in the past and the houses they lived in. As a result, these groups of people rely on Rak An Coffee in recalling their memories and bringing back the feelings of happiness or beauty that they have experienced before. Rak An Coffee is presented as a museum that reproduces the local identity, which is the revival of traditional culture. It is like a representative image that is brought back to life so that people can think of the past again in the present through the construction of things that connect the past with the present until the collective feelings are recreated under the old feeling. Rak An Coffee retells the memories by preserving the original structure of the house. The interior of the shop is also decorated by the furniture that has been used in real life since the past. So, people who enter this place can immerse themselves in the atmosphere of the past. This reflects that even the city has developed in leaps and bounds, this place retains the traditional locality that is full of value under the context of the area)Sakawrat Boonwanno, et al., 2018 , pp.4-6(*“If talking about museums, people probably do not want to go in because it looks ancient and they are not into it. But how can we make people recognize that this is a coffee shop with a story that tells the story of things through the real items that reflect the history of the people of the past?”* (Keeratiporn Jutaviriya, personal communication, August 24, 2021).

In addition, Rak An Coffee also shows that this place does not only want to present the preservation of the building or the old house, but the space is also adjusted for commercial purposes. It sells tastes to consumers by selling products and services that can meet the demand of sign of the people today because coming for coffee does not end with just shopping and leaving. But the consumption of coffee can create a culture through the form of photography and posting it in social media such as Facebook or Instagram. This reflects the value creation of products and coffee culture that is not just about drinking coffee only, but it also presents the implications of consumption that can create an image which is linked to the status of social roles that are all related

to each other. It also shows the power of the person that is able to reach what people in society care about until it becomes a consumer culture that focuses on sign value.



Figure 3: Rak An Coffee a half museum

In addition, the interior of the shop gives a warm and relaxed feeling like being at home. It is an old wooden house combining with modernity that can be accessed by all ages. There are trees that purify the air at various angles. Pictures are arranged and the shelves are beautifully decorated. The shop is also presented with an exhibition of modern architecture of Khon Kaen and an exhibition, called “Isan Khot Sing” as a learning area for preserving local architecture in Khon Kaen. Therefore, Rak An Coffee is different from other coffee shops. It reflects that although Khon Kaen Province is developing rapidly, Rak An Coffee is still a learning center for those who are interested in studying the history of Khon Kaen Province, which reflects the way of life of the people of Khon Kaen that combines the lifestyles of Isan, Chinese and Thai people in a form of a “multicultural” society.

5. Conclusion and recommendations

After the influence of the railroad’s arrival, Thai people of Chinese descent were engaged in various businesses in Khon Kaen Province. The popular businesses at that time were trading and agriculture. Zhu is also one of the family that operated pig farming and other agricultural businesses in Ban Phai District. Subsequently, the business was expanded to the Muang District by relying on the cooperation of the relatives in running the pig farming business. In terms of selling pigs, it was traded through the middlemen and pigs were mainly transported via the railroad. This business continued to grow until there was the urban development policy promoting the development in various fields. The pig farm located in the center of the city was unable to adapt to the social context at that time due to a number of limitations, such as pollution problems. Moreover, the rail transport was unpopular. They also did not have time to take care of the pig farming business. Therefore, the pig farm was closed down. Because of the development of infrastructure according to the development plan defining Khon Kaen Province as the development center of the Northeast, Khon Kaen City has developed rapidly in various fields, and it has become more urbanized until the traditional community in the past no longer remains. In addition, there are more business sectors. According to this development, Mr. Prakit and Mrs. Keeratiporn Jutaviriya operate the coffee shop consistent with the current context and preserve the original architecture. So, people who have past

experiences can return to the traditional way of life that was in their memories. The feelings that have been lost can be brought back through Rak An Coffee, which presents the story of the traditional way of life by building things that connect the past with the present, such as preserving the original structure of the old house and decorating the shop with the appliances used in the past until the past stories can be recalled again. It can be seen there is a change in each period. That is, the business was changed from trading to the pig farm, Rak An Pharmacy and Rak An Gold Shop. Finally, it becomes a half coffee shop, half museum, called “Rak An Coffee” which reflects the development of Khon Kaen City through the Chinese family. However, in further study, interviews should be made with people in the neighborhood area or those living in that period in order to better understand the development of Khon Kaen Province/ the communities in Khon Kaen Province.

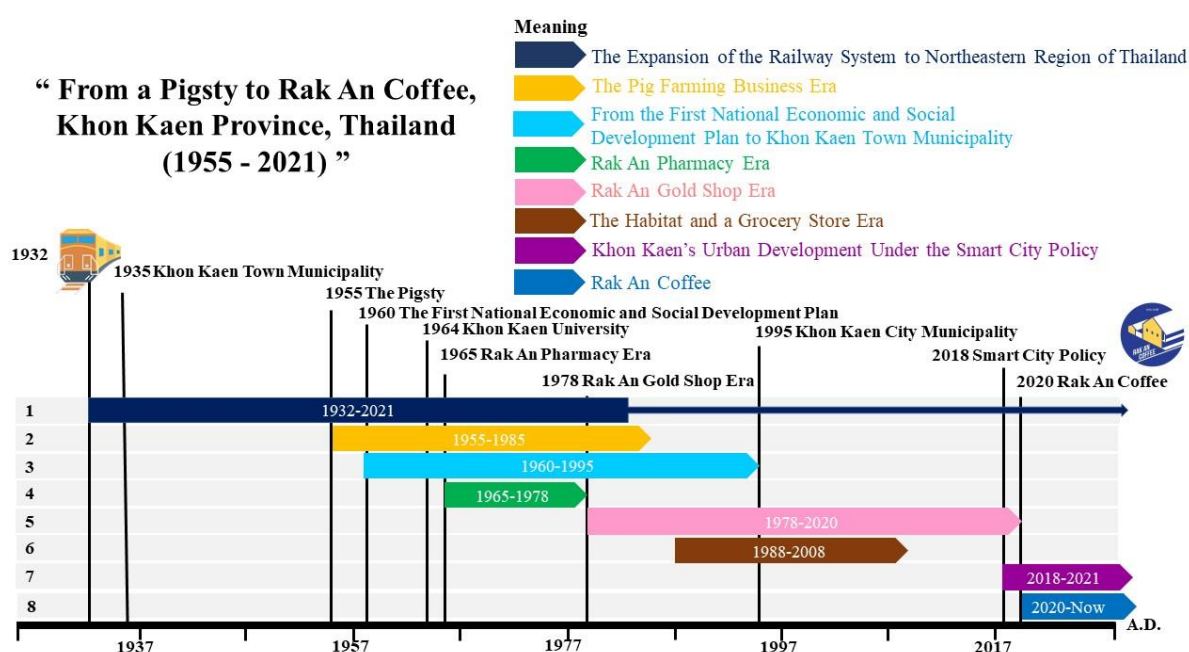


Figure 4: Timeline of Rak An Coffee Development

6. References

- Keeratiporn Jutaviriya. (August 24, 2021). **Interview**. The owner of Rak An Coffee Shop. Khon Kaen.
- Kaewta Jantranusorn. (2008). **The Chinese and Production of Public Culture in Khon Kaen Municipality**.)Doctor of Philosophy Program in Thai Studies(. Mahasarakham University, Mahasarakham.
- Nunthaphot Boonprasith and Vissanu Zumitzavan. (2019(. The Perceptions Related to Infrastructure Management for Urban Growth: A Case Study of Banped, Khon Kean. **Governance Journal**, 8(1), 386-404.



- Prakit Jutaviriya. (August 24, 2021). **Interview**. The owner of Rak An Coffee. Khon Kaen.
- Sakawrat Boonwanno, et al., (2018, September-December (. Nostalgia and Commoditization in Tourism Dimension of Thai Society. **Social Sciences Research and Academic Journal** , 13(39), 4-6. Retrieved from https://so05.tcithaijo.org/index.php/JSSRA/article/view/115777/139612?fbclid=IwAR2CikVldSISGNGFa2TFB81_vRLPXnbHCT0iUbrbbtkvdkit9QHDu3NZtw0
- Suwit Theerasawat. (2008(. **Economic History of Isan Village Community (1945-2001)** . Khon Kaen University, Khon Kaen.
- Supatra Yothinsirikul.)2018, July-December (. Chinese Names of Gold Shops Owned by Chinese-Thais in Bangkok. **Journal of Language, Religion and Culture** . , 7(2), p. 206. Retrieved from <https://so03.tci-thaijo.org/index.php/gshskku/article/view/126540/118056>
- Sootharwan Intarapanich. (2021(. **Sightseeing: Rak An Coffee, Khon Kaen**. Retrieved on September 23, 2021, from <https://www.isaninsight.com/rakancoffee/?fbclid=IwAR3pZxCXia5zixiknbPS3xq5230mSr7M37HzboQZGBStZearSB1mrs56Xc>
- TerraBKK. (2019(. **Khon Kaen developed as a SMART CITY seriously by the private sector**. Retrieved on October 3, 2021, from <https://www.terrabbkk.com/articles>