Humanistic Understanding of Kimchi and Kimjang Culture

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World Institute of Kimchi
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From the Publisher

In 2001, kimchi was registered at Codex, an international recognition of kimchi which is the representative traditional fermented food of Korea. Again in 2006, kimchi was selected as one of the five health foods of the world. On December 5, 2013, at the 8th Intergovernmental Meeting for Safeguarding the UNESCO Intangible Cultural Heritages, the registration of ‘Kimjang: Making and Sharing’ in the Intangible Cultural Heritage of Humanity was confirmed. It is upon this happy occasion that Korea received a boost of distinction in the world, which is considered another recognition of the cultural value of kimchi, kimchi making and sharing, and Korea’s status as a leading country in food culture.

Such recent developments helped the governmental kimchi related organizations accelerate their efforts for the globalization of kimchi. Besides such natural scientific aspects such as the recipe, nutrients, and ingredients, the globalization of the food of a country requires a study of humanities and subject related aspects. Thus far, however, there has been something of a less than balanced approach for the globalization of kimchi as most research and interests in kimchi have leaned too much towards the natural science aspects.

Kimchi and kimjang culture (making and sharing kimchi) is a solely Korean tradition that has continued for thousands of years and is still being practiced in the 21st century. In-depth and extensive studies on humanistic and social elements of kimjang culture, or the cultural phenomenon from the production of kimchi ingredients to making and sharing, in addition to the oral tradition surrounding kimchi, makes it a unique culture transcending a mere food. Implanting this idea in the minds of people around the world is believed the most effective way to globalize kimchi and Korean food.
Thus far, humanistic studies on kimchi that are closest to the life of Koreans have been sporadic and fragmentary. World Institute of Kimchi strives to establish an independent field of study on kimchi under the term ‘kimchiology’ which will encompass the predominant natural scientific research that exists in kimchi studies while opening up research from the perspectives of the humanities and social science.

The Institute held ‘The 1st Kimchiology Symposium’ in November 2013. The papers and discussions presented and discussed at the symposium has been compiled into this book under the title <Humanistic Understanding of Kimchi and Kimjang Culture>, the first book of the kimchiology series. This book is also to congratulate the registration of “kimjang: Making and Sharing Kimchi” as the UNESCO Intangible Cultural Heritage of Humanity and to promote humanistic understanding of kimchi and kimjang culture and share its values with the Korean people.

I would like to have your kind understanding that as it is only a beginning stage of kimchiology, and this book might have some insufficiencies. My sincere thanks for authors who willingly participate in the establishment of kimchiology and wrote excellent articles for <Humanistic Understanding of Kimchi and Kimjang Culture>.

Park Wan-soo
President
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November, 2014
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The Coming of the Humanistic Approach for Kimchiology: Cultural Anthropology of Kimjang and Kimchi

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Kimchi as a side dish, Kimchi as a culture

‘Bread and butter’ is almost as idiomatic an expression in the western world as ‘rice and kimchi’ or ‘where needle goes, thread follows’ in Korea. The expressions refer to a combination of two essential elements that make up an indispensable pair. In everyday life, jam is more preferred, and ‘bread and jam’ would be a more appropriate expression. Jam reminds me of the movie <The Pianist>. A Czech pianist hiding in the ruins of a building deserted for a long time was found by a German officer. At the request of the officer he played the piano and the officer began favoring him. The officer gave the pianist a little bit of jam. After the pianist received it and put it in his mouth, a close-up scene shows him looking extremely happy. Kimchi is so common a side dish for Koreans that they don’t feel cravings for it in everyday life. Koreans would feel the same were they to have a taste of kimchi after a long overseas trip or hospitalization with imposed dietary controls. While the deep nutty taste of fat is the core of western dietary life, ‘light and cheerful with a tang to it’ taste of kimchi in optimum fermentation is Korea’s. The importance of kimchi in the dietary life of Koreans can be compared to jam and butter for westerners’.
While kimchi is tangible, the intangible aspect of making and consuming it represents a social and cultural activity of Korea. kimchi has also been a subject of literature, history and philosophical thoughts for Koreans as being a must item along with rice in the dietary life of Koreans. In other words, kimchi is not a mere object people see and eat. It represents ritual, values, symbol, knowledge, technical know-how, and an independent activity producing and changing artistic values and beauties as often expressed in the term ‘the color and charm’ of food. For the establishment of kimchiology, here I propose to review the meaning and value of kimchi based on the three elements of people, time and location. kimchi is a composite cultural phenomenon and the procedure of its production and consumption is beyond science. It is a production process of cultural and social values with historical and regional society’s elements combined.

Various Kinds of Kimchi, Complexity of History and Culture

In the past, ‘a fermented side dish made of various vegetables, fruits, roots, fish, meat as main ingredients with salt and some seasonings added’ generally defined kimchi. These days, fermented Chinese cabbages and/or radish with garlic, pepper and salt mixed in them is considered standard kimchi. Varying in different localities and household, various ingredients such as green onion, ginger, sesame, water parsley, fish sauce, fish, meat, onion and others are selectively added for unique taste, look and color. There are various water kimchis as well according to the amount of water used. The various kimchi ingredients and recipes are related to the natural environment of

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respective regions and they also reflect social and cultural aspects of the region. Why are people willing to make special efforts to create different recipes when a plain dish would be enough to gratify the stomach? It is because human beings have a natural desire aspiring for discrimination in taste, look and color.\(^3\) The regional and historical variety of kimchi tells of human being’s innate creativity and complex cultural and historical contents. The extensive variety of kimchi and the regional and historical differences of kimchi are the results of the human being’s innate creativity and they contain various cultural and historical contents beyond a mere adaptation to natural environment in producing kimchi ingredients.

For example, according to soil and climate, food ingredients may vary respective of regions. The economic and technological development diversified farming and distribution systems. The growing gap in social and economic status between the rich and the poor also brought differences in food. Villages, regions, and each household come to have their unique recipes and tradition in kimchi ingredients, making, and sharing.

Due to Confucian sense of values, not many records have been kept on food and recipes in Korea, and even less on kimchi. Studies are being made on Korean food mostly focused on what a special clan’s head family was serving.\(^4\) The royal court cuisine of Korea that was once put to a stop during the Japanese colonialization period has been reconstituted and commercialized based on the royal court records and individual researcher’s studies.\(^4\) If the studies expand to local villages and civilian life and their traditions and stories can be collected, a more various and rich food culture of Korea can be found.

Throughout history, Kimchi ingredients varied. The cucumber was introduced to Korea before the radish. Cabbage cultivation began long

after the introduction of the radish.\textsuperscript{5} It is only about 100 years since the so called ‘whole cabbage’ became a standard kimchi ingredient.\textsuperscript{6} Cabbage, radish and cucumber are the names of species and according to plant taxonomy, kimchi ingredients are extensively diverse in different localities and historical periods. In addition, one ingredient alone makes many kinds of kimchi. No part of the cabbage and radish are thrown away unused. For example, radish leaves are used to make radish leaf kimchi dried and cabbage root kimchi are local specialties. Various kimchi live different lives. For example, the Korean lettuce kimchi (godeulbaegi), dried radish kimchi (Gonjjanji, a Gyeongsang-do province local specialty), and sikhye (a representative kimchi of Hamgyeong-do province in North Korea where fish is the main ingredient) gradually disappeared from people’s everyday lives, but now can be found in special food corners at expensive department stores. Mustard leaves kimchi (Got kimchi) of Jindo Island made its comeback as a local specialty food thanks to the local self-government’s drive for local characterization business.

**Pepper hot taste and red. Bland taste and white**

These days, kimchi is associated with chili pepper and chili pepper became a must ingredient for kimchi. But it was only the 16th century in mid Joseon period especially at the time of the Imjin Wars (Japanese invasion of Korea in 1592) when chili pepper was first introduced to Korea. When chili was not known, Chinese pepper was used to give a chili hot taste to foods. But kimchi without pepper was more the norm. Dimchae, the origin of the word kimchi, was a fermented pickled vegetable and an early form of kimchi.

\textsuperscript{5} Jo Jaesun, “Historical Analysis on Kimchi Ingredients and Production Methods”, “Humanistic Understanding of Kimchi and Kimjang Culture, 1st Kimchiology Symposium, 2013. \\textsuperscript{6} Park Chae-lin, “Roots of Joseon Dynasty Kimchi” 2013
Once chili pepper was introduced, Korean people displayed their creativity and developed various means of using it in kimchi and other foods for taste and decoration. They developed red pepper paste, pepper pickle in red pepper paste, soybean paste or soy sauce and green chili pancake. Westerners were shocked to see Koreans eat green pepper dipped in red pepper paste. Red pepper was also used in the geumjul (straw rope hung either with peppers or pine needles intertwined: peppers meant the newly born baby was a boy, pine leaves for a girl) as an element of folklore. Red pepper became an indispensable ingredient for kimchi. Today, amid popular acclaim for the pepper, a new definition of ‘Korean foods’ seems to be in the making.

Kimchi making scenes mostly depict people stuffing plump cabbage with various ingredients mixed in red pepper and neatly stacking them up. But there are many kimchis without red pepper. Dongchimi (radish water kimchi) and ‘Bossamkimchi’ (wrapped kimchi with special seasoned stuffing) are such examples. Therefore, it was a general practice that most households prepare three kimchi jars for cabbage kimchi, radish kimchi and radish water kimchi. In some regions, some homes added Bossam kimchi as a premium. The conception of Korean kimchi becomes confined when people insist on a definition which focuses only on the imagery of red-pepper. It is a relatively recent development that red pepper kimchi made of cabbage and radish is known to be ‘the kimchi of Korea’ ignoring the more than 300 kinds of kimchi with various ingredients, recipes, tastes and others. It is the result of the combined effort by food industries who pushed commercialization of cultural assets including food and academic circles’ discussions of the value of national culture. In particular, with the reconstruction of Korean culture movement invigorated in the 1980s, kimchi became a symbol of Korean culture. At the time of the 2002 World Cup Games for which Korea was the host country and ‘the red devil’ cheering squad of Korea was at its height, the color red was

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7 Han Kyoung-koo, ‘Some foods are good to think : Kimchi and the essence of Korean’s identity’, Korean Cultural Anthropology 26, 1994, pp 51-68
chosen to represent Korea’s energy and the dynamic character of all Koreans. The Red Devil derives from a shamanistic belief that red chases away evil spirits: “Small pepper is hot (Do not underestimate the little man)” added to the excitement of the World Cup Games. When the Korean team proudly advanced to the semi-finals, the color red and the hot taste of pepper emerged core symbols of the Korean culture.\textsuperscript{8}

Pungent hot taste characterized in the recent ramen (instant noodles) advertisements, is being promoted as a genuine taste of Korea. To get even more pungent tastes, public restaurants use imported peppers or even hemp being used in Szechwan China. The Korean pepper used in kimchi tastes excellent and not as terribly hot as it looks. The secret and charm of it is that Korean pepper has a sweet taste to it. The peppers from Mexico, Thailand and south west parts of China come in different sizes and are fiery hot, and are not to Koreans’ taste. ‘Tasty pepper’ called ‘Korean pepper’ refers to the sweet taste that comes after the hot taste. The Korean expression ‘maekomhada’ (‘sweet spicy’) means this. Beside the sweet taste of winter cabbage and radish and the sweet taste produced by the chemical combination of cabbage and pepper, the sweetness of pepper itself is critical to the taste of kimchi. While red kimchi with red pepper is colorful and tasty, white kimchi as well deserves special attention for its look of elegance and bland taste. The white kimchi made of white cabbage with yellowish heart with shredded red pepper and pine nut topping can be said beyond comparison. Demerit of white kimchi is it goes sour quicker than red kimchi, the fresh stimulation of white kimchi without red pepper is especially good when eaten cold. Most foreigners enjoy white kimchi served at a high-class restaurant. While red kimchi symbolizes the aggressive aspect of the Korean culture while demanding people who are new to Korean culture to try ‘the taste of Korea’, white kimchi conveys a gentleness and scholarly character.

\textsuperscript{8} Han Kyoung-koo, “The ‘Kimchi Wars’in Globalizing East Asia: Consuming Class, Gender, Health, and National Identity”, L. Kendall ed., Consuming Korean Tradition in Early and Late Modernity. Honolulu, Hawaii: The University of Hawaii, pp.149-166.
While the importance of red pepper in kimchi is obvious, the emphasis of red pepper should not lead to uniformity of kimchi. Development in foods implies various ingredients, numerous recipes, looks and tastes. It is believed worth special attention not to make a mistake reducing the variety of kimchis.

Humanistic studies of fermentation

The recent definition of kimchi distinctively emphasizes the pepper’s hot taste and color; however, the key characteristic of kimchi is its fermentation. As in the examples of water parsley kimchi, radish water kimchi, and water kimchi, the hot tasting pepper does not necessarily make kimchi. The key to kimchi is fermentation. Fermentation is a unique chemical activity maturing an organic substance without using heat. Regardless of the ingredients, to be recognized as kimchi, fermentation is required. According to the degree of fermentation, kimchi is called in different terms as fresh kimchi, under-fermented kimchi, and optimum degree fermented kimchi, all varied in taste. We give particular interest to kimchi because it represents a fermented food and no country in the world has as many fermented foods as Korea. Such numerous names of kimchi depending on the degree of fermentation and number of ingredients used testify to the uniqueness of kimchi among foods of the world, and to Koreans’ wisdom, creativity and their knowledge and know-how to use natural products to the benefit of man.

In other words, it is neither the red pepper taste nor its color that decide the taste of kimchi. Fermentation does. While fermentation itself is a chemical process, fermentation in relation to making kimchi, especially winter kimchi is a subject of humanistic studies as the taste may vary depending on makers’ experimental knowledge and know-how. There is a saying ‘taste comes from finger tips’. In other words, fermentation
is more than a scientific process. To get right and timely fermentation, various traditional wisdoms were employed such as using jars as container, storing kimchi underground, and other know-how and even the practices of folk beliefs. Depending on ingredients, amount, climate, and what kind of container is used, the speed and degree of fermentation vary. What kind of fish sauce is used is particularly important as it decides the kimchi’s taste and correct fermentation method. This is why fermentation is not a mere chemical process but a cultural phenomenon encompassing traditional knowledge, know-how, religious and artistic practices, and values.

According to the degree of fermentation⁹, kimchi has several names: ‘geot-jeori’ (fresh kimchi), optimum-degree-fermented kimchi, ‘mugeunji’ (ripe kimchi) and ‘sin kimchi’ (over-fermented kimchi), the names refer to varying degrees of chemical activities done in kimchi over certain durations. Fresh kimchi is kind of a salad and it is one of the most common side dishes Koreans enjoy in place of regular kimchi. The kimchi on the extreme end of a spectrum of fermentation may not be fit for eating. For example, winter kimchi made at the end of a year may go too sour by March or April of the next year, and past optimum degree of fermentation. Color, texture and taste may change to the point unfit for eating. Koreans have exerted their creativity and practical ability to use the over-fermented kimchi and created numerous menus using old sour kimchi. ‘Samhap’ (‘the harmony of the three’: steamed pork, skate, and old kimchi), a people’s favorite unique local food of Jeolla province, the south western part of Korea, is a good example. In Gyeongsang-do province, old kimchi pancake is a favorite local food. Kimchi casserole, kimchi soup, kimchi fried rice, and kimchi banquet noodles are other examples of when old sour kimchi is better than kimchi with different degrees of fermentation. Recently, kimchi dried seaweed rolls, kimchi hamburger, and kimchi pizza have been added to old sour kimchi menus. Such various use to create new menu items

⁹_Levi-Strauss, Claude, The Origin of Table Manners, London: Jonathan Cape, 1978._
using over-fermented kimchi provides a clue to understanding Koreans, their modes of thought, cultural system, development and transformation of cultural significance, and other aspects of Korea. When and where have a lot to do with fermentation. In order to get excellent taste or optimum degree fermented kimchi and to maintain the optimum state as long as possible, even fengshui considerations are employed as to the decision of where and what depth the hole in the ground should be dug in which the kimchi jars will rest and what finishing touches might be added to them. The custom has become so familiar that people might not be aware they are practicing the theory of divination. People’s attitude, utmost care and endurance over fermentation for long durations resemble ascetic practices.

Community and festival

Kimchi making and kimchi recipes, and cultural significance related to both are mostly done by and transmitted to women and is worth special attention. As with the management right of kitchen and crokery, kimchi making and know-how constitute important parts of the ‘cultural tradition’ of a household to be transmitted to next generations and the transmission is from mother-in-laws to daughter-in-laws, especially to the eldest daughter-in-law. Winter kimchi making is a big family event when social and family hierarchy, especially among the participating women, come into play. It is mostly a group effort by family members who gather and work together, sharing the result of the day’s work. It is also done as community work beyond blood relationship such as among neighbors and friends, in the form of farmer’s cooperative or exchange work where role differentiation naturally comes into being. While carrying radish and cabbage, to dig holes to bury kimchi jars, building a hut over jars, peeling chestnuts, adding condiments to go into kimchi by hand... the whole operation of making kimchi is under the control of the eldest woman of the family.
The exchange work is not only an economic activity but an exchange of kindness and human relationship, as if it were a gift. The gift is a symbol of total presentation rendering the social being of all those participating in the exchange. Therefore, making kimchi, especially winter kimchi, is where people’s personalities, emotions, and friendships are experienced so that the event serves as a binding force for continuing the relationships.  

What is more important in kimchi making is that it is a work process of creating a common taste. All participate in making seasonings, deciding the degree of saltiness of cabbage, salting or adding ingredients to an agreed taste and then all enjoy the final product. In other words, by participating in kimchi making, people build a cultural community. Therefore, to participate in kimchi making is more than a mere labor service. It is a ritual to become a member of a community that is formed through the activity.     

Making kimchi and winter kimchi making is kind of a party or a festival. It provides an opportunity for people living their scattered lives to gather and to reconfirm and strengthen their relationship, forgotten or neglected. Therefore, kimchi and making winter kimchi together means more than a good deed of sharing kimchi with family members, relatives, and neighbors. It is an activity fulfilling a more in-depth social and cultural significance. In other words, it signifies the making and confirming of the existing relationship, their identity and cultural community. It is an annual ritual process being repeated every year in a structured manner or half-structured or without a structure. By repeated participation in kimchi making, women are given cultural status in their community. It is in a way, one of the rites of passage.  

Kimchi from the perspective of civilization exchanges in history and social history

From the expanded perspective of time and location, kimchi has developed to have great diversity in terms of ingredients, production method and consumption pattern. It represents the history of civilization exchanges that began in the past, continued to today and are continuing into the future. As analysis on the history of various material objects and technologies would do, the study on the history of kimchi, an element of culture, on its ingredients and know-how is significant in understanding both the movement of human beings and the process of how and over what period of time the blending of different civilizations and cultures took place.

Thus far, kimchi studies focused mostly on the history of the importation of ingredients, their reception and reinvention in Korea. But studies on the complex dynamics of two-way transactions, in-coming and out-going, and reception and expansion of kimchi are believed needed to lead us to the understanding of the varied layers of civilization exchanges, cultural reception, and reinvention. As previously mentioned, the historical study concerns the history of scientific technology focused on the cultivation methods of kimchi ingredients suited to climate and soil and supply systems. It also constitutes social history and economic history that influenced people’s everyday life. Today, kimchi has become a living index. Radish, cabbage, garlic and pepper are daily necessities and their prices are the people’s economic living indexes, often becoming political issues.

Urbanization and mass production of foods at factories have been destroying the traditional culture of kimchi making. Apartment living, nuclear families, diversified food ingredients and foods, mass production, store-bought consumption pattern and westernized dietary fashion have all reduced traditional food consumption and home cooking. Home cooking and the winter kimchi making tradition which
used to be a big family event have become not so common. Kimchi making is no longer a housewife’s major work. With the development of factory-made kimchi, kimchi can be bought at markets all year round. Market globalization is also challenging the very concept of ‘original ethnic food’. Kimchi, for its global recognition and growing popularity, is being made in countries all over the world, and each is competing for bigger market share.

At the same time, Kimchi production and consumption is showing a new trend. The invention of kimchi refrigerators for city dwellers, large quantity importation of kimchi from abroad, commercialization of local special kimchis, healthy food fever, and the growing awareness of ‘safe food’ brought about the order production system, and home- made kimchi is making a comeback.

While making kimchi at home has reduced, kimchi supply from local towns or agricultural farms to relatives or customers living in cities is increasing. Growing demand is witnessed for local special kimchi by the people longing for the taste of a hometown or an item that reminds them of their cultural identity. New types local kimchis have been produced by the defectors from North Korea based on their memory of the original North Korean kimchi. Young married people living not far from their parents, sometimes gather at the parents’ house on weekends and make kimchi together to share. It is an often-found small family event. Nearing winter, various winter kimchi making events are organized for soldiers, for children and grandchildren’s school lunches, and for the poor and the less privileged. Kimchi making is not only for a supply of food, it represents a cultural tradition and production activity of values such as consideration for others, a sense of community, identity sharing and other attributes.

Competing against numerous volunteer activities for others, a winter kimchi making event became that much more important. It was all because of the cultural significance and social values attached to the kimchi making in the Korean society. To have enough to eat and a warm place to stay was the key to survive winter and kimchi and
firewood (later, it was replaced by briquettes) stood for survival over a long cold winter. Until it was replaced by a Chuseok bonus (Chuseok is a Korean version Thanksgiving Day, August 15 by the lunar calendar), the winter kimchi bonus was a general practice, and was compensation for the hard work in the past year. With the unprecedented economic development of Korea and urban middle class life style setting in, making kimchi has become less of a priority. But the tradition of generosity continues in the kimchi making for the poor or the disadvantaged.

The recent changes in kimchi making can be linked to the studies on the changes in the roles of men and women, spatial structural changes, life style changes and social relationships in a changed form, and an emergence of a new world view and sense of values. A discovery of a new concept of the tradition and folk culture, political and economic activity over food would be the issues for future studies. Urbanization caused scattered families to all over. The new form of making kimchi as a family event and order production from local towns for city consumers is helping overcoming the lost human relationship and cultural ties. Kimchi and traditional winter kimchi making have gone through many changes; however, they continue in different forms adjusting to new situations and against market competition.

With increased immigration to overseas countries, kimchi has become a cultural asset giving an identity to Koreans in their new places. Foreigners now think favorably of kimchi and some even enjoy eating it. And while kimchi has become an important Korean food, it is a useful tool for creating cultural space and social relationship over the barriers of race, nation, and social classes. Globalization of kimchi is not the result of Korea’s cultural propaganda. It is the result of a two-way appreciation by the people of the world. Therefore, an analysis on the varieties of kimchi and various kimchi consumption systems will lead to the studies of kimchi from the perspectives of cultural science and social science—such as kimchi in relation to global immigration, North Korean defectors, and encounters and compromises with foreign cultures.
Kimchi being born again through humanities studies

Over the trend of decreasing ‘orthodox’ kimchi and winter kimchi making that has long been deemed a must preparation for winter, some people fear kimchi is disappearing. But it will not. It is in the process of being diversified through a dynamic process of competition among things local and things global, compromises and collaboration. As all cultures do, kimchi went over the boundary of Korea and is spreading to the world. It is being reinvented through accommodating local cultures and combining with them. The development of various kimchi and kimchi varieties, and development of varied consumption channels are not desecrating traditional Korean kimchi: rather it signifies development and diversification of kimchi. Therefore, what kind of kimchi, production method, taste, and consumption pattern needs to be understood in the context of where it is. These days, kimchi is known worldwide. Japan and China are challenging Korea for bigger kimchi market share in the world. It is believed the most keen attention of the studies of humanities on kimchi is to be given to how to expand kimchi as a public benefit and the kimchi making activity as resources for humanities throughout the world.

Kimjang culture as an intangible cultural heritage and the role of communities in the concerned territory

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Indeology and Safeguarding method :
The Convention for the Safeguarding of the Intangible Cultural Heritage

The Convention for the Safeguarding of the Intangible Cultural Heritage\(^1\) is a UNESCO treaty adopted at its 32nd General Conference held in Paris, France on October 17, 2003. The year 2013 marks its 10th anniversary. The purpose of the Convention is “to safeguard the intangible cultural heritage; to ensure respect for the tangible cultural heritage of the communities, groups and individuals concerned; to raise awareness at the local, national and international levels of the importance of the intangible cultural heritage while ensuing mutual appreciation thereof; and to provide for international cooperation and assistance.”\(^2\)

As of October 2013, 155 states have ratified the Convention. In accordance with the Convention, member states publish and keep updated the representative list of the intangible cultural heritage of humanity and the list of the intangible cultural heritage in need of urgent safeguarding.

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The Convention says “Intangible Cultural Heritage means the practices, representations, expressions, knowledge, and skills- as well as the instruments, objects, artifacts and cultural spaces associated therewith - that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.” The Intangible Cultural Heritage is divided into the following five categories:

- Oral traditions and expressions
- Performing arts
- Social practices, rituals and festive events
- Knowledge and practices concerning nature and the universe
- Traditional craftsmanship

The scope of intangible cultural heritage extends further than traditions, history, local culture, arts, and traditional craftsmanship. It includes instruments, objects, artifacts and cultural spaces; in other words, all things related to mankind.

What is worth special attention is how the Convention recognizes the importance of communities and groups: It is from an understanding that intangible cultural heritage is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history. In this regard, the Convention requires communities, groups and individuals to actively involve themselves in identification of the intangible cultural heritage that exists in their territory, adoption of appropriate policies and its management. The Convention also asks to take necessary measures to ensure the widest possible participation of communities, groups, and where appropriate, individuals that create, maintain and transmit such heritage.

The Convention requires each member state - as a means to protect the intangible cultural heritage in their territory and to ensure safeguarding

4. no clear definition on ‘community’ but it acknowledges that the definition of community does not necessarily confined to a certain region.
them in a manner geared to its own situation - to draw up one or more inventories of the intangible cultural heritage present in its territory, and to regularly update the inventories. In addition, the Committee to the Convention publishes two lists: ‘The Representative List of the Intangible Cultural Heritage of Humanity’ and ‘The List of Intangible Cultural Heritage in Need of Urgent Safeguarding.’ The Register introducing the best practices to safeguard the intangible cultural heritage is for promoting the people’s awareness of safeguarding the heritage and which is to be shared among countries, communities and individuals.

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<td>Register</td>
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Intangible cultural heritage registration system began in 2008 and as of 2012, 257 intangible heritage have been registered in ‘the representative list’; 31 in ‘the urgent safeguarding’ lists; and 10 in ‘best practices’. While the registration standard of the Convention Concerning the Protection of World Cultural and Natural Heritage (1976) is ‘outstanding universal value’ and authenticity, the Intangible Cultural Heritage Convention concerns a heritage’s vitality and how communities and individuals value their heritage. The purpose of the registration system is not ‘registration on a representative list’. The system is to protect intangible cultural heritage and to share each country’s safeguarding activities through disseminating the best

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5 Korea has laws on the Intangible Cultural Heritage Protection, and national, provinces and cities intangible cultural asset lists have been prepared. But the scope of Korean intangible cultural assets and UNESCO’s are different. A Korean cultural association conducted researches and made a list of 61 new national cultural assets.
practices. Like this, there exists a conceptual difference between the convention for safeguarding of intangible cultural heritage and the convention concerning the protection of the world cultural and natural heritage.

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<th>convention for safeguarding of intangible cultural heritage</th>
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<td>• outstanding universal value • authenticity</td>
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Constitution of the Convention for Safeguarding of the Intangible Cultural Heritage and Korea

Korea joined the convention on February 9, 2005 and became the 11th member of the Convention. Since then, Korea has actively participated in safeguarding the intangible cultural heritage as a member of the Intergovernmental Committee and as a member of the screening organization. There are various intangible cultural heritage- related organizations in Korea that have been authorized as an NGO of UNESCO. They are rendering services for international society. In 1997, UNESCO launched the program of Proclamation of the Masterpieces of the Oral and Intangible Heritage of Humanity and chose three items from Korea: Royal Ancestral Ritual and Music at

6. Korea has actively participated in the Convention as a committee member of the Asia Pacific Region; in particular as a member of the Inter-governmental Committee in charge of screening the applications for the registration in the Representative List.

7. Presently, Korea Cultural Heritage Foundation (in Seoul); World Martial Arts Union (in Chungju); and Inter-City Intangible Cultural Cooperation Network (ICCN, in Gangneung) are the NGO organizations in an advisory capacity to UNESCO. They screen applications for the registration in the Urgent Safeguarding List, Representative List, Best Practice, and international assistance for the over $25,000 projects.
Jongmyo Shrine (2001), Pansori (2003), and Gangneung Danoje Festival (2005), which strengthened Korea’s status as a leading country in safeguarding intangible heritage. In 2006, “the Representative List of the Intangible Cultural Heritage of Humanity” began with 5 items from Korea including Ganggangsullae recorded in September 2009. Thereafter, 3 items including Gagok (Korean lyric songs) were added in November 2010; 3 more items including Taekgyyeon in November 2011; Arirang in December 2012; and Kimjang Culture (kimchi making culture) in December 2013. As of today, Korea has a total of 16 intangible cultural heritage designations.\(^8\)

From early on, Korea has established policies to protect intangible cultural heritage. Now it is sharing her experiences with international society and is continuing to strengthen her status as a leading country in safeguarding intangible cultural heritage.

Korea’s intangible cultural asset protection is based on the Cultural Properties Protection Law enacted in 1962. According to this law, of all the intangible cultural properties, those with historical, academic, artistic and authentic local values qualify as Important Intangible Cultural Property and such people who can learn and preserve the original arts, skills and performances are designated as initiators.\(^9\) This

\(^8\) For safeguarding of the intangible cultural heritage, UNESCO adopted ‘the resolution for the establishment of oral traditions and intangible cultural heritage system’ at the 29th general conference in November 1997. On May 18, 2001, the UNESCO headquarters in Paris designated 19 items of 19 countries including China, Japan and Korea as ‘Masterpieces of Oral Traditions and Intangible Cultural Heritage’. The Convention for the Safeguarding of the Intangible Cultural Heritage takes effect in 2006, and ‘Masterpieces of Oral Traditions and Intangible Cultural Heritage’ has been incorporated into ‘the representative list of the intangible cultural heritage of humanity’ in November 2008.

\(^9\) Criteria to be recognized as the holder (individual, organization) of the important intangible cultural property:
- ‘intangible cultural property holder’ means those who have the skills, knowledge and can perform the arts, artifacts, performances, and other intangible cultural properties true to their original forms
- ‘intangible cultural property holding organization’ means the organizations who have the skills, knowledge and can perform the arts, artifacts, performances, and other intangible cultural properties true to their original forms
- ‘intangible cultural property holder emeritus’ : Of the intangible cultural property holders, those who are unable to perform, practice, or teach the intangible cultural property -related skills and performances
policy is from the understanding that ‘initiator training’ is the key to the preservation and development of an intangible cultural asset. As a result, and as of October 2013, 129 Important Intangible Cultural Assets have been designated and cultural transmitters selected who work in their respective areas (intangible cultural assets 179, initiator education assistants 294, initiators 4, 856, cultural transmitter scholarship recipients 75.) Including the 439 city and province designated intangible cultural assets, about 6,000 initiators were selected and trained. The cultural transmission system, initiation education system, and assistance to cultural transmission activities received many complimentary reviews.

Korea’s intangible cultural asset protection system and policies are faced with challenges due to their differences from the Convention’s in terms of definition of the intangible cultural property, scope and ways to safeguard them. Domestic problems over heritage protection complicates the issue further.

<The Laws on the Preservation and Promotion of the Intangible Cultural Properties> submitted to the National Assembly in 2012 was prepared from an understanding of the situation.

The Value of Kimjang culture as intangible cultural property and community participation

Food is essential for existence in all communities and it represents a community knowledge that has been transmitted to next generations over a long period of time. In this regard, it can be said that food is a cultural expression of human beings and food culture is certainly an

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10. NESCO convention’s definition and scope of the intangible cultural heritage is broader than what is stated in the Cultural Properties Protection Law of Korea. Korean law defines ‘plays, music, dances, games, rituals, artifacts, and others with outstanding historical, artistic, and academic values’ as intangible cultural properties.
intangible cultural asset key to understanding a society’s identity, its social customs and natural environments.  

In March 2012, Korea applied to UNESCO for ‘Kimjang culture (winter kimchi making culture)’ to be registered as an intangible cultural heritage that needed safeguarding for its preservation and transmission to next generations. This action intended to increase people’s awareness of UNESCO intangible cultural heritage and to expand kimchi culture at home and abroad.

Needless to say, kimchi is a must item regardless of region and class in the dietary life of the Korean people. Kimjang, or winter kimchi making in large quantity to get through winter has been developed over long years by best using the ingredients available in the respective regions. Kimchi recipes and ingredients vary from region to region. What ingredients to use and the know-how of how and where to keep kimchi earned through long years of experience have orally been transmitted by women over the generations.

Various kimchi containers were used such as dok (jar); jungduri (small earthenware jar with full middle part); bataenggi (a small jar with a fuller girth); and hangari (pot) all depending on the type of kimchi and when it was to be eaten. People believed a kimchi jar made full-heartedly helped make tasty kimchi. Various regions and households have their own traditional know-how on to keep kimchi from freezing and turning sour.

Kimjang, winter kimchi making, constitutes a significant part of Korean’s identity. Despite urbanization, westernization and commercialization, the majority of Koreans still eat kimchi they make

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11_ Whether to include a food in the Representative List was a subject for serious discussions which feared the harmful effects of commercializing the items concerned. UNESCO’s managerial regulations recommend the countries and communities concerned to provide information on the intangible cultural heritage; give regular and informal education; use community centers, museums, archives, communication means and media for the promotion of the heritage; and endorse activities for their commercialization. UNESCO also recommends countries and communities take protective measures such as intellectual property rights protection and others when they conduct promotional activities to ensure that their activities do not incur damage on communities, groups and individuals who created the intangible cultural heritages.
at home or kimchi made by relatives and sent to them regularly thereby showing that kimjang is an important binding force of family community in Korea. To make kimchi together and share it, especially at community kimchi making strengthens the ties among Koreans. Every year at the kimchi making season, regional communities and volunteer groups hold large scale kimchi making events for the less privileged: a good example of kimchi making strengthening ties among Koreans.

Kimchi recipes and kimjang related traditional know-how have mostly been transmitted informally in everyday life, some through exchange of labor with neighbors. But in recent years, the kimchi making practice has been introduced as a regular program at elementary schools making the transmission a part of formal education.

Not only in Korea but Korean immigrants living overseas continue with winter kimchi making if ingredients are available. As kimchi is of much importance in Korean food, Koreans living overseas in China, Japan, and other countries naturally also make winter kimchi, which has had significant influence on these countries where they live.

Kimjang has continued so long in Korea that it became a valuable intangible cultural asset and led Korea to apply to UNESCO for its registration on the Representative List of Intangible Cultural Heritage. The Convention encourages the widest possible participation of communities, groups, and individuals who created, maintain and transmit to next generations. It is because their participation is important not only for the protection of heritage but for transmission as well.

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12_ The convention does not clearly define the difference between community and group. A community is believed referring to the members of a community, or those having special knowledge or skills related to the cultural heritage or initiators who are succeeding the intangible cultural assets.

13_ Here, ‘protection or safeguarding’ means the measures to ensure continuation of the heritage concerned. It includes regular and informal education of intangible cultural properties, identification, documentation, research, preservation, promotion, transmission and other of the properties.

14_ Article 15 of the Convention encourages the widest possible participation of communities, groups and individuals in safeguarding and management of the intangible cultural heritage in their territory.
Community participation is not only a recommendation. UNESCO regulations require that application for the Urgent Safeguarding List and the Representative List should be supported by and has the participation of communities, groups and individuals concerned. A community’s positive participation and their willingness to protect the heritage is the prerequisite for it to truly be the Intangible Cultural Heritage of Humanity. Community participation and their agreement is an important consideration in reviewing applications from any country. As for kimjang, its related community means the entirety of the Koreans. Various groups participated in applying kimchi for registration as a UNESCO Intangible Cultural Heritage of Humanity. In 2011, a fact finding survey was conducted to review the people’s attitude toward kimchi, and to officially record their opinion on whether they were for or against the application. Another on-line survey was done from February to March 2012 to note people’s opinions. Results show that 99% of the respondents were for the application. In addition, many people sent their comments on kimchi and on the application. Besides, local autonomous organizations, cultural asset related organizations, and research institutes sent their written approvals together with the list of their intangible cultural properties in their territory and information on what they do to protect them. Kimjang Culture UNESCO Registration Committee composed of specialists and representatives of government was organized in October 2011. Extensive discussions were made as to the subject and an application was drawn up over a 3 month period from October 2011. After the final review by the committee, the application was submitted to UNESCO headquarters through the Ministry of Foreign Affairs. As explained above, Korea as a community participated in applying for the registration of kimjang culture as an Intangible Cultural Heritage of

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15_A telephone survey (on 10 questions), on-line comment relays (on the portals, Twitter@, Facebook@), and kimjang photo contest took place. Koreans responded positively to the activities, tendering their support for the registration of kimjang as a UNESCO intangible cultural heritage.
The significance of kimchi and kimjang culture to be registered in the Representative List of the Intangible Cultural Heritage of Humanity is as follows:

First, it proves the intangible cultural asset protection policy of Korea has expanded from cultural asset to intangible cultural heritage. Second, not the important intangible cultural property or city and provincial intangible property but unregistered intangible culture has been included for application to be on the Representative List. Third, there were unprecedented people participation in the course of the application.

UNESCO lists 16 intangible Korean cultural heritage assets, which is 30% of all heritage assets in the Asia Pacific region. Registration of kimchi and kimjang culture in the UNESCO Representative List of the Intangible Cultural Heritage of Humanity boosted the pride of Humanity. Through the process of application, Koreans became more aware of the value of their Important Intangible Cultural Properties, City and Province Intangible Cultural Properties, and undesignated cultural properties. They came to have a broader understanding of intangible cultural assets through knowing that common everyday activities can also be intangible cultural heritage.

16 The Convention for the Safeguarding of the Intangible Cultural Heritage says only heritage included in the respective countries’ national cultural asset list are qualified for the application for the Representative List. Considering the Convention, Korea has prepared a separate list of the intangible cultural assets that are not included in the Important Intangible Cultural Property List or the City Province Intangible Cultural Property list in 2011. According to the Cultural Properties Protection Law of Korea, the events whose main player is not certain, as in the case of kimjang, can be not included in the national list.
intangible cultural assets and initiators and increased people’s awareness of the intangible cultural properties. For the past several years, the important intangible cultural properties and city and provincial intangible cultural properties were preferentially applied for the UNESCO list and those registered are mostly important cultural properties. In this regard, the application of kimjang culture to be included in the Representative List signifies that a great recognition has been given to an unregistered intangible cultural asset.

Application for the registration of kimjang culture in the Representative List following Arirang is in line with the paradigm shifting in international society in favor of safeguarding intangible cultural assets. While most of the intangible cultural assets included in the Representative List were the important intangible cultural assets involving a limited community, Korean people as a whole are represented in the scope of community for kimchi and kimjang culture. What measures are needed for safeguarding the kimjang culture, and the subsequent role of various communities are believed the subjects for further discussions.

While the registration in the UNESCO Representative List of the Intangible Cultural Heritage of Humanity is an important international safeguarding measure, greater attention needs to be given to the intangible asset-related community identity, how it has changed and is changing than to the registration itself. Careful review is believed needed as to what communities, groups, and individuals can do for safeguarding the intangible assets and what result it will bring to

17. The convention’s emphasis ‘much attention should be given to community’ is what the Korean folklore specialists and anthropologists have long said. Due to the gap between academic discussions and government policies, their voices had not been heard enough.

18. Enactment of laws for intangible cultural asset protection, kimchi town construction, financial assistance for kimchi-related organizations, assistance for academic research and others are examples of the effort. Vegetable growing in the back yard program at elementary, junior-high schools, to include kimjang practice in the school curriculum, kimchi festival, kimchi making event held by village women’s associations and local governments will be important to continue kimjang culture.
communities in the end. Researchers and various community members should be given chances to present their opinions on safeguarding intangible cultural assets which will help towards understanding the UNESCO Convention of Intangible Cultural Heritage.
Korean Kimjang culture: history, significance and future

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R&D Headquarters, Director, World Institute of Kimchi
Preface

The Korean Peninsula is located at 33~43 degrees latitude north and has four distinct seasons as do countries in the same latitude. But as it is in the eastern part of the Eurasian Continent, it is exposed to continental climate and has far more severe winter than countries in Europe on the same latitude. Kimchi was created as a means of surviving the severe winter cold in a country whose main industry was farming.

From early on, Koreans settled on the Korean Peninsula and lived by farming. They stored grains harvested in autumn and pickled vegetables in preparation for the severe cold winter. In order to keep vegetables from going soft and for optimum fermentation, which is possible when air and saprogenic bacteria are kept at bay, container jars were developed that could maintain optimum levels of kimchi’s. Only those communities with fermentation and storage production technology can have a fermented vegetable culture. Outside Korea, many countries have fermented vegetables. Then, what unique values of the fermented vegetable kimchi and kimchi making merit international attention for safeguarding them?
The status of kimchi in the dietary life of Koreans over fermented vegetables unique to other countries is believed an important factor in its creation and the development of the kimchi-related community culture named kimjang. Rice, soup, and kimchi are the most typical staples of Korean food. White rice pairs with any and all side dishes. The main nutrition make up of rice is carbohydrate and salt is essential for its digestion. Of course animal foods need salt; however, as natrium is self-contained in meat and seafood, much less salt is needed. Rice needs an accompaniment of something salty and some kind of soup. Kimchi is perfect to eat with rice. It uses fresh vegetables, and produces its own juice from the vegetables (there is even ‘water kimchi’). It doesn’t need cooking which means it can make a quick simple meal without a heat source such as firewood, which was scarce during long periods of Korea’s past.

Kimchi, superbly accompanied by rice, is labor intensive and made within a short period of a month from November to December- before the real cold sets in. In the old days when Korea was very poor and suffered chronic food shortages, rice and kimchi were the staples of most people, and kimchi was even called the ‘half-staple food’. Therefore, the amount of kimchi required to sustain people for the 4-5 months of winter was huge and kimjang, winter kimchi making, became one of the biggest family events. The big concerns and stress on individual family heads and housewives to meet this demand were naturally mitigated when kimjang became a community activity where exchange of labor created a kimjang culture of sharing and thanking.

The traditional custom to prepare food for winter, to make winter food together, can be found in other cultural areas; however, every household in the community making the same food within a prescribed set period of one month must be rare.

What is even more unique about kimchi and kimjang is that the tradition formed when Korea was an agricultural society, still continues even after Korea developed into a highly industrialized country. It makes Koreans pause and question themselves on the meaning and
values of their own culture. The cultural phenomena related to kimjang provides a useful index to understanding the Koreans’ thought and cultural code, making kimchi and kimjang typical representations of Korean culture. More than 10 years have past since the turn of the millennium into the 21st century, and though arguably late, it should be meaningful to start a discussion of the value of kimjang culture. This article is to review historical background of the birth of the unique food culture of kimjang. As there is a limit to tracing back the history before the Goryeo period (918–1392 A.D.), this article is written with humanistic imagination, taking the advantage of a symposium that has a little room for freedom from academic dissertation, as to the long history of the kimjang culture. This article is focused on what kimjang meant for Koreans, what changed and what still continues over history. In particular, as for the meaning of kimchi and kimjang culture in the Korean society from early on to modern times, new analysis has been done on the historical references of the Joseon period that have been compiled for the book <Roots of Joseon dynasty kimchi>\(^1\). In addition, in order to see continuation and changes in kimjang culture, analysis has been done based on printed newspaper articles starting during the Japanese colonialization period through the 1960s and the on-site research done in recent months.

\(^1\) Roots of Joseon dynasty Kimchi : a deep, wide study of culture, cuisine and folklore, Park Chae-lin, Minsokwon, 2013
Historical imagination on the history of Kimjang culture in Korea

**Historical development and unique Kimjang culture**

Various foods made of salted vegetables are found in farming cultural regions which have harsh winters and whose staple food is grain. While it satisfies necessary conditions for the formation of salted vegetable culture, it is not sufficient. The formation of salted vegetable culture requires cultivation of the ingredient of vegetables; the existence and production technique for salt; soy sauce and vinegar; and the manufacturing technology of containers for preservation.

A field from the Neolithic Age, the oldest ever found in any east Asian countries including China and Japan, was excavated in Munam-ri, Jukwang-myeon, Goseong-gun, Gangwon-do province in 2012. Its discovery opens up supposition that the formation period of a salted vegetable culture in the Korean Peninsula can be advanced to an early period.² The field with clear plowed rows excavated in Munam-ri suggest that as early as the mid Neolithic Age (B.C. 3600~ 3000), an advanced farming culture existed on the Korean peninsula. Beside grains, garden fruits such as cucumber and peach have been found cultivated during the Bronze Era, suggesting grain and vegetable cultivation was high even prior to the formation of the ancient state.

As previously mentioned, cultivation of vegetables or farming culture does not necessarily prove out the existence of a salted vegetable culture. It requires compiled know-how about what vegetables in what amounts can be preserved for how long. In addition to rotting prevention, how to improve the taste of salted vegetables requires

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² According to the press release of June 25, 2012 by the Cultural Properties Administration, the National Cultural Properties Research Institute who began excavating 'Goseong Muamri Relic' (Historic Site No.426) from 2012 found 'a field' of the Neolithic Age. Before the excavation, Bronze Era (BC1500~ 400) field was considered the oldest in the Korean peninsula. The excavation traces the existence of farming in Korea back to as early as BC 5600). Burnt rice seeds, millet, and sorghum were excavated previously, presumed as evidence of a primitive form of farming, and not proof of the beginning of farming in Korea.
another upgrade technique. It also takes an advanced technology to design and make containers that can limit air exposure to ingredients for fermentation through growing salt-resistant and acid-resistant microorganisms and emit appropriate levels of carbohydrates produced in the course of fermentation to avoid exploding containers. In other words, salted vegetable culture is not always found in farming based society. It takes know-how to make salted vegetables and preservation technology that can prevent over-fermentation.

Given that pottery in the form of jars from the Neolithic and Bronze Ages (B.C. 2000~ B.C.1500) have been excavated in the Korean Peninsula, the know-how to produce a salted vegetable container must have been high in the area. Earthenware jar lids were also excavated suggesting that ancient Koreans had lid production techniques. More researches utilizing the achievements of archeological studies are expected to find out if the preservation container production technology was used for food fermentation.

All the Neolithic relics were found near seashores, strongly suggesting the existence of vegetables, salt, and containers on the Korean Peninsula as early as the Bronze Age. But it is just an assumption as to the earliest possible point when salted vegetable came into being on the Korean Peninsula. Excavation of an earthenware jar with lid which was used for food preservation, liquor bottle and jars described on the ancient tomb mural of Koguryeo (B.C. 100 ~ A.D. 668), and the historical records about the development of soy sauce production technology is not enough evidence to advance the history of kimchi and kimjang culture to prehistoric times. Likewise, there is a limit to tracing the origin and history of kimjang culture prior to the Three Kingdoms Period and to find if it is influenced by the salted vegetables of China based on historical records and archaeological relics.

Researchers on this topic are expected to give their attention to Korea’s earliest development of its own salted vegetables, independent from China, to possibly before the Three Kingdoms period. The following can be a starting point for future research.
First, according to old books of China and Korea, the two country’s salted vegetables were different from each other. It is found in <Gapoyukyeong> (‘poems on the six home garden growing vegetables’ - cucumber, eggplant, radish, green onion, curled mallow, gourd) by Lee Kyu-bo (1168~1241, a civil official and writer,) which has the first record of kimchi, soy sauce pickled vegetable account for the largest part of vegetable dishes of Korea from the Goryeo Kingdom period (918~1392) until early part of Joseon Kingdom (1392~1945). Soy sauce was also widely used in Koguryeo (B.C. 37 ~ 668, one of the three kingdoms located in the northern part of Korea during the Three Kingdoms period) and in Balhae (an ancient state in the northern most part of Korea and north east of China). It was an inexpensive, efficient and tasty natural preservative in place of salt, which was expensive at the time.

On the other hand, Jeminyosul (‘the be-all and end-all agricultural technology for the people’, China’s oldest comprehensive farming book, 10 volumes, published in the early 6th Century) wrote that 62% of pickled vegetables in China are from fermentation and there are only two pickled vegetables made with Doujiang (Chinese soy bean paste). It is believed to suggest that Korea might have learned a fermentation technique from China but quickly thereafter developed a fermentation process of its own.

Second, given the Koreans’ eating habits and general development level, Korea is believed to have come up with its own pickled vegetables. Differing from China, whose cuisine had already reached a significant level as early as the Han period (B.C. 206~A.D. 220), Korea was behind in the use of cooking utensils and the incorporation of fire was possible on a lesser scale than in China. For example, a food that required a complex cooking technique like ‘steam, fry and then grill’ could not be made in Korea. In this regard, eating fresh vegetables and the development of salted vegetable side dishes along with the development of various types of kimchi seems only natural. I cautiously propose that future kimchi culture related researches be on the above hypothesis.
Kimjang culture code in Korean thought

The history of kimjang culture can be traced through Korean thought. In Beopjusa Temple, there is a stone jar which was designated as North Chungcheong province Tangible Cultural Asset No. 204 in the year 2000. The stone jar (a work of an unknown period) is said that it was placed there in the 19th year (A.D.720) of King Seongdeok (33rd Shilla King, reigned A.D.702~737) and was used as a winter kimchi jar for 3,000 Buddhist monks. If the story as a historical fact is hard to prove, the story has nevertheless been transmitted without refutation thus far, and would be strong evidence of people’s general understanding of the importance of kimchi in Korean society.

A similar story appears in『Anthology of Okgye』 (‘jade valley’ is the pen name of No Jin, a civil official during the Joseon period, b.1518~d.1578). It has a record that there used to be a big rock that was used as a kimchi jar at the Jangsusa temple (‘long river temple’), burnt to the ground and only the temple site remains, at Deokyusan mountain. Jangsusa Temple is known to have been built by Buddhist monks of the Shilla Kingdom Gak Yeon (‘enlightenment as such’) in 487 (the 9th year of King Soji.) The author of the anthology, No Jin (1518~1578,) visited the temple in 1558 and left a travel essay that includes his legend of the stone jar similar to the Beopjusa Temple jar. It is a one-inch deep round rock and the record says that Gak Yeon kept kimchi in it.
I galloped on the horse for about 5~6 li (about 2~3km) and took a rest at the so called kimchi jar rock. Water was gushing out from the cracks of the rock making noise. It is said the rock was about an adult height deep with round mouth and it was used as a kimchi jar. A legend has it that a Buddhist monk names Gakyeon stayed here, kept vegetables in the jar and made kimchi with them. The surrounding area of the jar has been filled in with sand and stones and now the jar has only about several does of water (‘doe’ is a Korean unit of measure, 1 doe = 1.8 liters)

That a concave rock jar was used to keep kimchi is hardly possible to prove. But people thought the jars buried in the ground at the Jangsusa and Beopjusa temples were kimchi jars and this can suggest the existence of salted vegetables on the Korean peninsula. The two cases are both from the Three Kingdoms period and constitute more supporting evidence.

The Significance of Kimchi and Kimjang in Korea

Recent articles on kimchi tell us that kimchi is both a healthy food and a representative food of Korea while at the same time raising concerns over the levels of natrium (sodium) in it as well as giving the impression it is hard to make. The historical records of kimchi reveal the thoughts of the people of the period concerned. The purpose of this study is to trace the history of kimjang culture, mostly through the historical records of the Joseon period into the 1960s when national economic development began in earnest. Those records reveal a mainstream understanding of kimchi that continues from the Joseon period to the present day.
Joseon man's interest in Kimchi

『Gapoyukyeong』 by Yi Kyo-bo (1168~1241) is the oldest historical reference on kimjang culture. Lee wrote ‘radish pickled in soy sauce is good for three months in summer, salted cabbage for 9 months of winter’ in reference to the existence of the custom of eating pickled vegetables. Detailed pictures of winter kimchi making appearances in literary works were written by a man of the Joseon Kingdom. Considering that records of food are relatively rare and a majority of them are ones written in fun and ‘under the influence,’ (alcoholic spirits), more than a few of those records of kimjang are believed to suggest its importance in the old days of Korea.

19th century books of 『Nonga Weolryeongga』 (‘the song of seasonal activities of the farmhouses’) 『Dongguk Sesigi』 (‘seasonal customs of east country’, east country refers to Korea, and means the country lying east of China) have descriptions of kimjang. Besides, kimjang is described in poetry and prose of everyday life. Why did the man of the Joseon Kingdom write a lot about kimjang? Different from other house chores, kimjang is an important family event significant for that family to live through an entire winter. As the head of a family, it must have been a subject of major concern. The following shows some pictures of winter kimchi making during the Joseon period.

{ Kimchi making for wintering }
It is October, the wind was rising and frost fell early in the morning,
I have collected vegetables from the garden
Tasty winter kimchi has been prepared to get through the destitution of winter
It may not be a meal with delicacies, but every day I can have tasty kimchi

『Preservation of vegetables』 Vol. 10, 『Yangchonjip』 (‘Collection of Yangchon’ s Essays’, Yangchon is the pen name of Gwon Geun, 1352~1409, Joseon scholar and civil official.)
Kimchi making for wintering

Time was urgent and with the turnip shreds
Made winter kimchi and (took) it home.

"Chongye chuil jeuksa" (‘a work in a village on a fine day (in) autumn’),

"Hyonju jip" (‘Collection of essays of Hyeonju’, Hyenju meaning ‘black island’ is the pen name of Jo Chan-han, 1572~1631, Joseon scholar and civil official.)

Kimchi making for wintering

Each household makes kimchi for winter
When autumn was deep, I harvested radish from the field
Villages distant from market have various light foods
I again look for a salt boat in the river.

"Gokwum jip" (‘Collection of essays of Gokwun’, Gokwun ‘clouds in the valley’ is the pen name of Kim Su-jung, 1624~1701, Joseon scholar and civil official.)

Gwon Geun’s poem ‘Preservation of vegetables’ describes a picture of people collecting vegetables from a kitchen garden, and making kimchi in October by the lunar calendar, a season for winter kimchi making. Jo Chan-han’s ‘Chongye chuil jeuksa’ reveals a feeling of urgency to make kimchi before it gets too cold. Kim Su-jung’s ‘Ipwhaeum’ says kimjang is an annual event for every household. The following poetry show concerns over the preparation of ingredients for kimjang and needed amounts for getting through winter.
[preparation of Kimjang ingredients]
Radish in the field will be an abundant harvest
This winter kimjang will be cheaper

"Ajeong Yugo", 'The posthumous works of Ajeong', Ajeong 'graceful pavilion' is the pen name of Yi Deok-mu, Silhak scholar, a realist school of Confucianism of the Joseon Kingdom, Vol.9, "Cheongjanggwan Jeonseo", Yi Deok-mu 1741~1793.

[preparation of Kimjang ingredients]
Kimchi is prepared before snow falls
And tie the vegetables’ leaves to keep them from frost

"Duncheon Jeuksa" ('things to do for countryside households') Vol. 4, "Geumneungjip", 'Collections of poems of Geumneung', Geumneung 'golden hills' is the pen name of Nam Gong-cheol who served as prime minister of the Joseon Kingdom, 1760~1840.

[preparation of Kimjang ingredients]
How many rows of cabbage and radish in the field?
Are they enough to make winter kimchi to make it through three months of winter?

"Seolhu 'After the snow'>, Vol.18, "Jonjaejip", 'Collection of poems of Jonjae', Jonjae 'existence managing' is the pen name of Park Yun-muk, civil officer in the late Joseon period.
Park Yun-Muk’s <Seolhu> (‘After snow’) is making a guess of cabbage and radish in the kitchen garden that will be ingredients for winter kimchi to make it through 3 months of winter. <Siil Ubu> describes a man getting impatient over getting kimjang done before the cold winter. Yi Deok-mu’s 「Ajeong Yugo」 wrote a feeling of relief from expecting a smaller expense for kimjang due to a good harvest of radishes. Nam Gong-cheol’s poem 「Dunchon Jeuksa」 saying he should hurry with kimjang before snowfall confirms that the kimjang period during the Joseon Kingdom was between Ipdong (‘the onset of winter’, around Nov. 7, one of the lunar calendar’s 24 markings of the season) and Soseol (‘Small snowfall’, around Nov. 22.)

As reviewed in the above, the Joseon kimjang season was from the onset of winter - October by the lunar calendar and before the ingredients could get frostbite - to ‘small snowfall’ before severe cold hit. It was a family event for every household. As a large amount of kimchi had to be prepared to last all winter long, the crop situation of ingredients was a matter of great importance; forecasting the weather for the right day to make winter kimchi within the short period of time.
to harvest ingredients before the cold spell hits; and any other needed preparations for kimjang are seen in the poem. They were written by man, but their worries over the kimjang ingredients, then feelings of relief after having kimjang done tells us of their annual concern over food as the head of a household planning survival through a severely cold winter. The feeling of relief and peace of mind of having kimjang over and done with still continue today to some extent albeit in subtler ways.

The following essay gives us a picture of how a father in the 1960s feels after he honored his duty regarding kimjang as the head of a family. The essay’s title ‘His help for kimjang’ doesn’t mean her husband helped with making kimchi but that he prepared money for kimjang expenses by saving money through gye (gye: a traditional private fund popular among Koreans. Members of gye chip in a modest amount of money and take turns to receive a lump sum share.)

<His help for kimjang>

Now, I have vegetables and seasoning materials ready for winter kimchi making, I feel I am ready for winter. However severe coldness may hit hard, I feel I would able to conquer it like a courageous general in a battlefield. Last year, preparations for kimjang were less than desired; worse yet, cold dreary weather made me feel low and lonely.

“What do you think it will cost for kimjang?”
I stayed quiet. I couldn’t answer his question; first, because I didn’t check it, and second, I had a fear of what if the cost was tremendous?
“Wouldn’t it be possible to pay for winter kimchi on a monthly installment plan?,” he half-heartedly said and went off to work. Yesterday, he left the office at five sharp and came home early, handing me an envelope saying “People said it would more than enough.” Needless to say, I was surprised. I was very much moved when he told me he joined ‘kimjang gye’ to prepare for kimjang expenses. Without waiting a minute, I gave Ugi (their baby son) to him. He smiled happily, and I went to the market. I began bargaining for cabbage and other ingredients; the prices were no higher than last year. This year, we
As shown in Kim Su-jeung’s poem ‘Ipwhaeum’, kimchi is a must have side dish to get through winter and all the other seasons even when other side dishes are available. Poems of the Joseon Dynasty and newspaper articles during the Japanese colonial period in the following wrote that kimchi is a basic side dish at all times.

Kimjang, survival kit for the poor, a must item for the rich

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Kimchi is the only side dish on the dining table…

Kim Si-seup (1435~ 1493. Penname Maewoldang ‘cherry moon house’. He is the author of the famous ‘Keumo Sinhwa’ ‘new golden tortoise stories’, five stories of the supernatural.)

No need to lament over no fish available …
My intestines are used to vegetables
Each one’s transit life has their own destiny
Kimchi should be enough side dish for a poor Confucian scholar

Kim Si-seup (1435~ 1493. Penname Maewoldang ‘cherry moon house’. He is the author of the famous ‘Keumo Sinhwa’ ‘new golden tortoise stories’, five stories of the supernatural.)

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Nov. 30, 1964, Gyeonghyang Daily
Kimchi was more an essential necessity for poor people to survive winter. Though the poems and prose written by the upper class do not show much of the desperation about kimjang, the testimonies of people 80 years old and above and living in farming villages tell us ‘it was a matter of survival’. For poor people, kimchi was the only side dish to have rice with.

On the other hand, a dining table with no matter how many side dishes is not complete without kimchi. Kimchi is the basic side dish. Kimchi is a must item even for the dining table of a bountiful feast.

Jo Gyeong (1727~1789, a civil official in late Joseon, Haseo, pen name ‘lotus rest’) wrote a poem with much curiosity about his first try of Jeongol stew (a hot pot food of beef and various vegetables and other ingredients) at the party given by a high ranking official. The bountiful feast also had kimchi. A newspaper article wrote “there might be many side dishes; however, without kimchi it is like a face without a nose.” (DongA Ilbo ‘DongA Daily News’, Nov. 10, 1931), reminding the reader that kimchi is a must item at every dining table.

As kimchi is a side dish of that importance, how good at making kimchi was an important item for evaluation of housewives.

She makes outstanding taste of rice wines, soy sauce, soybean paste; in particular, her kimchi was so good that no one could compete.)

Chosun Ilbo (Korea’s sentinel newspaper,) Nov. 9, 1928.
Radish and green union with sour and pepper hot taste fight back illness. The recipe for them is a wise woman’s secret. To whom is the secret to be inherited?

“Yangarok, Vol.10, Jukdangjip, Sin Yu (1610~ 1665)

The eulogy for women who were exceptionally good at kimchi show the significance of kimchi in Koreans’ living.

Breakfast with a vegetable dish
It is an outstanding lifetime dish
Only radish, without green onion nor ginger
the light genuine salty taste radish kimchi
I don’t get tired of eating it
tastier than lamb or chevon
It is all thanks to the laudable maidservant.

“Jonjaejip, Park Yun-muk (1771~ 1849)

Similar awareness of the importance of being good at kimchi-making is found to continue to today. Kimchi-making practice, an annual event at girl’s schools is a good example. “In order to have girls who will become housewives learn kimchi-making” schools gave girls the day off to let them join in the dormitory kimchi making event. They were told that knowing how to make tasty kimchi is an important virtue (of a woman).

“Jungsin Girl’s High School in Seoul and Pyongyang Sungui Girl’s High School have a good reputation that their graduates make good housewives. Jungsin School, aside from dressing etiquette and cooking classes that are included in the curriculum, closes during kimjang season for several days to have their students practice kimchi-making. This program is to make the students good housewives ... ... Chosun Ilbo, Nov. 9, 1924.”
“Kimchi is an important side dish that cannot be separated from Koreans’ everyday life. Therefore, to make tasty kimchi for her family is the Korean housewives’ important responsibility. Kimchi-making is one of the biggest house chores for Korean women. What ingredients are needed to make tasty kimchi and how to make it require continued research and effort. Let me tell you my experiences and what I have found. ..., Maeil Sinbo, Nov. 14, 1935.”

Kimchi, a medium of Korean kindness
Joseon scholar Yu Sun wrote the following poem when he was sending a special kimchi made of mountain mustard leaves - a type of kimchi that can only be found deep in the mountains in early spring when the mountains are still snow-covered, to his friend Seong Dam-su (adult
name Yisu ‘old man’s ear’), one of the six surviving subjects of King Danjong (r.1452~ 1455, 6th king of Joseon Kingdom. He was dethroned by his uncle who later made himself a king). He wanted to share this tasty special kimchi and the love of his mother who sent him the kimchi with friend.

Wild leaf mustard Kimchi sent to Lee Su
God has created this small thing
which is of unique character from birth
It doesn’t want an open field nor swamp,
and takes roots on the slope of high mountains
It doesn't think much of ordinary weeds who spread in spring,
And it pushes out shoots in the snow
a thin stem less than an inch,
too small, hard to find it,
Buddhist monks in deep mountains at whiles
pluck them as if catching an escape
and sell them in villages down the mountains
Mother bought it together with grains
it is too hot to eat raw,
blanched slightly according to a handed-down secret,
and made into kimchi,
in an instant, the leaves’ fragrance spreads

When you have a taste of it first, you would knit your brow,
second bite will make you to have tearful eyes
mustard hot and sweet taste
belittles cinnamon and ginger
the taste of meats or fish, all sorts of delicacies
cannot compete with it

I am a picky eater
As I love the mountain mustard leaves like crazy,
mother send me a basketful
grateful for her care
how would I return her spring- sunlight- like love
wanting to talk with you
These days, as factory made kimchi becomes more commonplace, homemade kimchi is considered special. Mother’s kimchi is even more of a novelty and is a medium of conveying a mother’s love. Last September during on-site research, I met a poet whose hometown is Jinmoe village of Imsil, Jeolla-do province. He said even after his mother passed away, all the family make kimchi at the hometown house. “Winter kimchi is a band and medium linking me to mother. I communicate with mother through winter kimchi and me with my children” he said. All Koreans would agree with him that mother’s kimchi and her recipe is what brings them together and shares the memory of mother, her taste and love.

The poem below describes Korean families making kimchi together and the feeling of love among them. A finite amount of available winter kimchi must sustain a family through the long winter, making it hard to be generous in sharing with neighbors. But even if it means they might suffer shortages of kimchi later, it didn’t stop Koreans from being generous.

Being generous with Kimjang Kimchi
Cold kimchi got sour, I ask how much is left
A traveler came from afar
Mr. Yun I used to know when I stayed in Uiju previous winter
Talked about a young lady, praising her
That she offer meals to travelers with kindness
She doesn’t complain…….

<Seok Dongmunseon>(Sequel of Dongmunseon ‘east literature collection’ is a collection of 4302 poems by over 500 people from Silla to Joseon period. It is compiled in 1478 at the command of King Seongjong), Yu Sun(1441~1517, early Joseon civil official, he served as a prime minister.)

and share the leaves with you
I am sending some in a small box
I hope you enjoy it
let’s be a fragrance in cold winter together

"Simamyugo" (‘posthumous works of Simam ‘heart hermitage’. Siman is a pen name of Jo Du-sun, late Joseon civil official, 1796~1870.)
Today, a neighbor brought kimjang kimchi. Thanking for the kimchi while returning the cleaned kimchi container, I was reminded of our happy kimjang day a couple of days ago. Everyone was happy that the weather was unusually warm for winter; better yet, we were making some more kimchi this year for my elder brother who very recently came back home after his discharge from military service. Sitting around, we put seasonings inside the pickled cabbage leaves. One hand that stopped working, picked up a strip of kimchi and tasted it. It is fresh. Only the woman making kimchi can have a taste of that!

Mother took out containers to put the kimchi in for neighbors. I was feeling uneasy over the growing number of containers. My elder brother told mom “we bring them some, they bring us some. It would be about equal?” “My dear son, yes, you are right; but kindness remains.”

I don’t think anyone know why I blushed just then. ‘Sharing taste, kindness remains.” When did this simple but heart-warming custom begin? Does it seem too simple for the modern taste of big city housewives?

But when I become a housewife myself and make winter kimchi, I might think of what my mother said. “You gain nothing from it, but kindness for neighbors remains.”

Whang Seong-ja, (20 years old, 254, Seosin-dong, Jeonju City)

December 10, 1964, Dong-A Ilbo.
Industrialization of kimchi, Kimchi and the Korean identity

When I worked at the Kimchi Museum, I saw some western couples accompanying Korean children who came and looked carefully around here and there and then asked for a kimchi recipe brochure in English. Out of curiosity, I asked what brought them to the museum. They had come to adopt a Korean child. Before going back to their country, they wanted to have their adopted child know of kimchi, the symbolic food of Korea while studying kimchi for themselves and getting the recipe. Their understanding of Kimchi culture of Korea would be but a sketch level, however, they knew enough of how kimchi an important element constituting Korean identity.

For Koreans living for long stretches overseas, kimchi can be an energy source. Kimchi was in the ‘cheer kit from home’ for marathoner Son Kee-chung, gold medalist in the 1936 Berlin Olympics. He must have been tired from the long trip to Berlin, and kimchi and jangjolim (soy sauce braised beef, a basic side dish for Koreans) must have been excellent stimulants to bring his appetite back and give him energy.

The following article tells us Korean students studying abroad during the Japanese colonial period had the same nostalgia about kimchi.

“I stayed in China for six years and 8 or 9 nine years in Japan. Of course, all those years, I went through all sorts of hardships; how could I not get homesick for everything back home? When I felt hungry, I thought of Pyongyang naengmyeon (cold noodles of Pyeongyang) or steamed chicken. What I missed the most was ondol (Korean floor heating system) and kimchi. China and Japan as well have kimchi and pickled vegetables; however, theirs are not like the kimchi of Korea that tastes excellent and is rich in nutrition.”

(Byeolgeongon ‘divide sky and earth’, May 1, 1928, Things Korean that you miss when you are abroad- ondol and kimchi/written by Yu Yong-jun (1890’ 1972, woman physician and politician)
“When I was studying in France, what I missed the most was when 3~4 friends gathered in a room with warm ondol to eat galbi (‘rib bone meat’) or cold noodles in the 11th or 12th months of the lunar calendar, when snow was blowing outside. Especially when we ate western food, we had cravings for kimchi even more.”

(Byeolgeongon, May 1, 1928, Things Korean that you miss when you are abroad- ondol and kimchi/written by Lee Yeong-seop (1919~ 2000, Chief Justice of the Supreme Court)

“I missed kimchi most of the time and when I was invited to a friend’s house, dignity was put aside to eat kimchi....”

(Byeolgeongon, May 1, 1928, Things Korean that you miss when you are abroad- ondol and kimchi/written by Yu Kyong.

For Koreans, a life without kimchi is hard to imagine. Wherever they settle down, they made kimchi and spread the kimchi culture of sharing, kindness, and being considerate to others. The most typical examples are of the Korean immigrants living abroad.
Korea’s first official immigrants were 121 people who left for Hawaii in December 1902 arrived there in January 1903. Since then, forced
immigration to Japan, Sakhalin, and Manchuria, or to study or for political asylum, saw the number of overseas immigrants growing rapidly. Of those, Korean immigrant laborers in Hawaii couldn’t give up eating kimchi, and continued the kimchi culture. Kimchi factories came up and made sales drive mostly at Korean churches especially at festive seasons, weddings and funerals.

<Kukminbo (‘peoples’ newspaper’, May 11, 1949)

This Korean restaurant has been visited by many Koreans over the last two years. It is our wish that all who have visited our restaurant and experienced our tasty kimchi would introduce it to friends and relatives so that many more will come and enjoy delicious Korean food. Every third day from Sunday service, mandu (dumpling), muk (acorn jelly), guksu (noodle) and kimchi are served on order. Restaurant opens from 11 am till 7 pm except for Sundays.

Korean restaurant 615, North King Street, Tel. 89238
Korean Kitchen Catering KIM CHEE Take-out orders KOOK SOO
Since Koreans first settled in Hawaii, only Koreans ate kimchi; but now it is common to find people living in Hawaii from many different countries eating kimchi. Now there are 56 kimchi factories in Hawaii. The factories export kimchi to mainland America, Guam and Saipan. According to Kim Jo-seop, a factory owner, he exports 3,000 pounds of kimchi to mainland US every week and 3,000 pounds to Guam and Saipan every month. His factory is the biggest in Hawaii, providing 2,150 ~ 3,750 pounds of kimchi to the Honolulu market every week. “After you eat kimchi, kimchi smell might be a problem. Any idea about what to do about it?” the reporter asked him. His answer ‘I eat kimchi all the time but there was no one who said ‘kimchi smells repulsive.’’ According to him, Korea is not exporting kimchi overseas, yet.

Korean immigrants settled in Hawaii disseminated kimchi to other people. They developed technology and had the management ability that enabled them to export kimchi to other countries. Thanks to positive marketing activities by the kimchi factories in Hawaii, kimchi was introduced to ethnic people there and kimchi factories did well till the end of the 1960s. Kimchi factories in Hawaii and their export know-how enabled kimchi exports to other Koreans living overseas, which in turn facilitated the industrialization of kimchi.

In the 1960s, the Korean military personnel dispatched to Vietnam couldn’t go on combat ration only provided by the US, and they had to buy expensive kimchi from Hawaii (Chosun Ilbo, July 9, 1965). In order to solve this food problem raised by Korean soldiers, the US military decided to include kimchi in C-rations. As the demand for canned kimchi in wartime grew big, the Korean government tried to be a supplier of kimchi to the US military (Maeil Economy, May 11, 1965). Korea began developing canned kimchi in a hurry, and it lighted

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the fuse to canned kimchi making technology and the industrialization of kimchi in Korea. Paradoxically, kimchi exports begun by overseas Koreans contributed to the industrialization of kimchi in Korea.

Prior to Korean’s immigration to Hawaii, there were overseas Koreans. Many Koreans were taken to China as prisoners of war during the Manchu War of 1636. Most of them settled in Ningyuan, Fengrun and they maintained a kimchi culture of their own. According to records, they commercialized kimchi from early on.

A unique aspect of this immigrants culture is that while its origin is from the motherland, over time that group lost touch and became isolated, and that isolation seems to have kept the original form of culture intact. The kimchi culture of the Koreans in Kazakhstan, Sakhalin, and Yunhaju (the Maritime Province of Siberia) of Russia are examples of this. Generations later of Korean immigrants to China during the Qing Dynasty are still found to keep Dongchimi (water
Fengrun, Ningyuan are regions where Korean immigrants were taken to at the time of the Manchu War of 1636. Koreans kept their way of living including foods. Kim Chang-up who was the member of a delegation to China during King Sukjong (1661~1720, 19th king of Joseon Kingdom) wrote that during the journey he met a descendant of one such prisoner of war.

An old woman came to me and said her parents are Koreans, they were taken prisoner there in 1637 (15th year of King Injo) and she was born there and she was 69 years old. Her mother used to live in Jangui-dong in Seoul, father from Gwangju sanseong (Gwangju fortress), her husband was from Yeongan-do province and died long ago. She lives with a granddaughter, makes a living by selling pickled vegetables, soy sauce, bean paste. I was happy to meet a person who speaks Korean and I gave her yakgwa.
The old woman of Korean descent, who earned her living by selling Korean style kimchi and soy sauce and bean paste, showed her business ability. She checked the moving route of the Korean delegation and sold Korean food to those who, on a long journey would miss Korean food. As there is nothing like food that gives the taste of home for people traveling long periods, some in the Korean delegation included her place of business in their travel route so they might be assured of eating kimchi in a foreign land. There might have been other Korean group residences in China. The existence of kimchi culture could be found thanks to the emissaries of King Sukjong who wrote their experiences in their journey to China.

[Yonhaeng Ilgi] (Diary of a Journey to Beijing), Vol 2. Imjin year (December 15, 1712, King Sukjong’s 38th year)
Both Ningyung, Fengrun had Dongchimi (Korean radish water kimchi) and they taste similar to Korean’s; Fengrun’s was a little better.

\[\text{Yeonhaeng Ilgi, Vol.1}\]

<General introduction to mountains, streams and customs>

Dongchimi served for dinner at a peddler’s inn was excellent as heard.

\[\text{Yeonhaengnok} (‘Record of a Journey to China’), <Giyurok>,
Kim Jeong-jung, December 18, 1791.\]

Their Dongchimi tastes the same as Korea’s; the recipe is said to have been from Koreans who were taken to the place as prisoner of war in 1637 (15th year of King Injo’s reign.)

\[\text{Yeonwon jikji} (a travel journal to Beijing by Kim Gyeong-seon who went to China as an emissary), Vol. 2 <Chulgangnok>, December 8, 1832.\]

For overseas Koreans to be able to eat kimchi, they needed reasonable supply of ingredients and know-how to make tasty kimchi with what limited ingredients were available in their place. Those who have ingredients and know-how made a business out of kimchi and the commercialization of kimchi took place overseas first before it did in Korea. This would be one aspect of kimchi culture.

**Kimjang culture, changes and what doesn’t change**

**Changes caused by decrease in community manpower, Kimjang community culture continues**

Since the Joseon period, two important elements of kimjang have been ingredients and manpower. Winter kimchi making is the family or community event that involves a complicated procedure and a lot of
ingredients, and manpower and supply of ingredients are the keys. For most ordinary Korean people, kimchi was almost the only dish to survive winter, tasty kimchi would be a premium luxury ‘adding flower to silk cloths’, and kimjang was an unavoidable event for every household. Yi Si-hang’s (1672~1736, a Joseon scholar) essay describes the problems most people have during kimjang. He wrote of kimjang in detail including information of easy ways to keep kimchi. When making kimchi itself is hard enough, to wash and prepare a big kimchi jar, put kimchi in the jars, and then bury them in the ground are all cumbersome. Joseon people must have felt the same in wanting to lessen the workload.

[ Evolution of kimchi keeping ]
A man in Chunhyang-hyeon, Andong, Yeongnam region uses wooden barrel instead of jars. It is said the kimchi kept in wooden barrel tastes excellent in spring. A middle class man named Yang Maengkyeop in Pyongan-do province told me that he dug an underground cave in the shape of a jar, apply red clay inside and to the bottom of it. When the red clay became solid, apply dry catalpa leaves thick inside the cave. He washes the radishes and puts them in the cave, adds salt water to suit taste in the same way to make radish kimchi in a jar, closes the opening of the cave with catalpa leaves, and covers it in dirt. In about a month, he gets tasty radish kimchi and the taste doesn’t change all throughout winter.

“How cumbersome it is to make winter kimchi. From jars to wooden barrels, to earthen cave.. evolving convenience seems to be the way of the world.”

‘Whaeunjip’ (‘Essays of whaeun’, whaeun ‘harmony and hiding’ is Yi Si-hang’s pen name), Vol.5 <Gimunnok>, Yi Si-hang (1672~1736, a Joseon scholar)
It may not be a nationwide or common phenomenon; however, due to the dissolution of class and urbanization that sped up during the Japanese colonialization period, winter kimchi making manpower must be harder to find. At the same time, as industrialization and specialization were slowly made their way, discussions began of the need for a kimchi factory.

There were suggestions for improvement of living such as “during kimjang period, a community kimjang center needs be established to save time for woman”, “it would be better to make soy sauce, bean paste, and kimchi at factories, not at individual house.” (Jan. 1, 1935). It is not clear how kimchi was sold but newspaper articles prove that kimchi could be bought in those days. “The Ladies Patriotic Society made some money through their volunteer work and, with that money, they bought 6 heads of cabbage kimchi and donated them to the US Army in Yongsan Garrison” (Mail Sinbo, April 16, 1938.)

Girls’ schools offered kimchi making classes. There was a case where a school dispatched students to houses who wanted their help with winter kimchi making.

“After school, 150 girls in the 6th grade at Pyeongyang Namsan Public Elementary School made visits every day under the guidance of a homeroom teacher to houses who applied for kimjang service. They
made tasty kimchi at less expense and were greatly welcomed,” (Maeil Sinbo, Nov. 12, 1935.) It might have been just a one-time event, but such kimjang service was most likely a way designed to fix the manpower shortage problem for kimjang. Various attempts and suggestions were made to simplify kimchi making and even market kimchi appeared. But the unique aspect of kimjang culture is that those who participate in kimchi making is for more than just providing manpower. A reader’s article for DongA Ilbo Nov. 25, 1965 nicely describes why the kimjang community culture continues while there are ways to use less manpower for kimchi making. Kimjang event provides ‘time’ to build friendship with neighbors with whom exchanges became less than before and ‘space’ to prepare foods for neighbors and express thanks.

Every year at kimjang, there arose a small dispute between my mother and me. My mother wants to shred the radishes that will go inside the cabbages by hand while I want to use a chef’s knife. Mother insists on cutting each radish by hand, saying it makes the radish fresh and crunchy, while my argument is that no matter how tasty you get the radish to taste, it’s not worth the time and effort when we have to work on more than 100 radishes.

After supper, mother went to the next door neighbor to help her with kimjang. 3~4 neighborhood aunts seem to have come, too. Continuous laughter, mixed in the sound of cutting board. I was knitting in the other room, when all of sudden I came to understand that cutting radish by hand is not only about getting fresh crunchy radish.
In recent years at kimchi-making season, the homeward bound cars jam the highways. This is a new picture of kimjang culture. Young people living in cities go down to their parents in the countryside, make kimchi together and take some back with them. There are cases where city people make kimchi at home because they received kimjang ingredients from relatives or friends who turned to farming. Though it seems a little early to say it is a general phenomenon, the kimjang culture that seemed to disappear with the coming of the advanced industrialization era continues in a different form.

As previously introduced by poet Kim OO (55 years old), there are people who keep the empty hometown house and whole families gather there to make winter kimchi. Even after his mother passed away, he went down to his hometown with brothers, made kimchi together and remembered the taste of mother’s kimchi and her love. He is doing it wanting to have his children continue the tradition. For them, kimjang
provides time and space to remember mother, teach her recipe to the next generation, and thus strengthen the family ties.

**Modern economic system and the supply of Kimchi ingredients; Kimjang season change**

As previously reviewed, regardless of it being the Joseon period or the era of Japanese colonialization, there is no big difference in people’s concern over kimjang. Though no record is found to prove, even in old days, there must be government policies to deal with the rush demand during kimjang season. One distinctive feature in the days of Japanese colonialization of Korea is that various ingredients began coming into market through modern commercial systems. Different from previous times during the Japanese colonialization period, kimjang emerged an important national policy for winter, and it in turn influences kimjang culture.

A unique feature of kimjang is that it takes a huge amount of ingredients, big expense, and intensive manpower within a short period of time. In particular, urbanization, commercialization, and industrialization taking place at the same time in Korea brought about a clear division of supplier and consumer, and the demand for kimchi ingredients at markets during kimjang season became explosive.

The following is an analysis on the changes of kimjang culture based on newspaper articles from a broader perspective and introduction to kimjang-related government policies, the kimjang bonus and other items.

**Kimjang emerges an important government issue**

The big cities which experienced a sudden influx of population during and after Japanese colonialization, needed an emergency system to support the 2~3 weeks of the kimjang season. Enough supplies of ingredients/transportation/price stabilization, waste disposal, and
washing water were important problems to solve. First, in order to secure a smooth supply of ingredients and price stabilization, temporary kimjang markets were operated. From August, big cities checked crop forecast for main ingredients of cabbage, radish, and other seasonings. They arranged transportation for a smooth supply of ingredients and in some cities, public kimjang markets were opened for the convenience of residents.

(left) Kimjang Market, Dong A Ilbo, Nov. 7, 1933. (right) Oct. 30, 1957. Despite 25 years difference, the two pictures present same scene

Second, disposal of kimjang waste was another big issue. During kimjang season it was easy to see kimjang vegetable disposals piled up all over public markets and back alleys.

The amount of kimjang garbage was so huge that special measures such as additional manpower to take care of the waste and waste control couldn’t fix the problem. According to a pickled cabbage making business man, pickled cabbage was a way to solve waste problem at wholesale markets during kimjang season. A rule to reduce kimjang garbage was introduced that permitted markets to sell only trimmed cabbage - those with their outer leaves removed. Accordingly, as pickled cabbage and trimmed kimjang ingredients became more available, the outer leaves and radish greens that anyone could once gather free of charge anywhere to make Korean’s favorite and inexpensive side dishes became harder to get.
As reviewed above, government level preparation for winter months that began during the Japanese colonialization period when Korea was fit into a frame of a modern nation, continues. Newspaper articles of the 1960s tell us that winter fuel, kimjang, electricity, salt, and kimjang garbage disposal were primary duties for most cities. It was such an important problem concerning public welfare that even the President should be concerned in winter kimchi ingredients and in arranging temporary transportations to remove kimjang garbage.

Third, shortage of water supply to wash kimjang ingredients was another problem. During the Japanese colonial period, food sanitation act and water supply system were introduced to Korea but the water supply fell far short of the needed amount during kimjang period. Winter kimchi making custom of Korea was one of the headaches for the Japanese colonial government.

<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
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<tbody>
<tr>
<td>Nov.18,1935</td>
<td>Huge kimjang garbage in back street needs immediate clean up</td>
</tr>
<tr>
<td>Nov.30,1935</td>
<td>Every day 2.3 tons kimjang garbage, cleaning capability only 5 tons a day, cleaning men work only normal hours, kimjang season headache</td>
</tr>
<tr>
<td>Dec.20,1937</td>
<td>Piled kimjang garbage on the streets of Incheon, citizens complain of the city's neglect of duty despite paying clean-up cost regularly.</td>
</tr>
<tr>
<td>Dec.10,1937</td>
<td>Loose garbage control, temporary clean-up drive</td>
</tr>
<tr>
<td>Nov.19,1938</td>
<td>Overflowing waste bin, Yongsan Police conducted sanitation check</td>
</tr>
<tr>
<td>Nov.26,1938</td>
<td>Shortage of manpower during kimjang season every year, Seoul City Sanitation Department.</td>
</tr>
<tr>
<td>Nov.09,1939</td>
<td>Gaeseong City kimjang garbage overflowing, citizens complaint of city's negligence</td>
</tr>
</tbody>
</table>
<Table 2> Chosun Ilbo newspaper articles on shortage of water during kimjang season

<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr.24, 1924</td>
<td>Since waterworks system is introduced, even cold water costs money; shortage of water for public facilities and during kimjang season</td>
</tr>
<tr>
<td>Oct.21, 1924</td>
<td>Seoul citizens experience water shortage during kimjang season. Well water is dangerous due to sanitation problems. Over 2,000 wells have questionable quality water</td>
</tr>
<tr>
<td>Oct.21, 1924</td>
<td>Seoul citizens suffer shortage of water, over 70% of wells have sanitation problem.</td>
</tr>
<tr>
<td>Nov.10, 1936</td>
<td>Washing vegetables in the Cheonggyecheon stream is banned. Rigid police enforcement by Dongdae-mun Police Station</td>
</tr>
<tr>
<td>Nov.14, 1936</td>
<td>Restriction of water supply is expected to continue until mid December, a blow to 'kimjang season'</td>
</tr>
<tr>
<td>Nov.20, 1937</td>
<td>Water usage rose sharply, Seoul City</td>
</tr>
</tbody>
</table>
In those days, newspaper articles were headlined as ‘water utility bill to pay, kimjang season causes concerns’, ‘shortage of water in Seoul before kimjang season’, ‘vegetable washing in the Cheonggyecheon stream banned’, and ‘restriction of water supply during kimjang season’.

**Monthly salary and Kimjang bonus, new variables to Kimjang culture**

While kimjang problems of ingredient supply, garbage disposal, and shortage of water continued, the timing of when to make winter kimchi changed over the years. In the past when agriculture was the main industry, weather was the key to the harvest of kimchi ingredients. Kimjang season was before or after the on-set of winter (around Nov. 7) or before vegetables could get frostbite. But when farming gave way to industrialization, commercialization of agricultural produces took over and production, transportation, and consumption became separate. People have to buy ingredients from markets. As employed workers increased, pay day or bonus day became the key factor in deciding kimjang day.

Until the 1950s, weather was the key factor in deciding when to make winter kimchi. People could buy vegetables cheaper before the coldest part of the season and it was easier to bury kimchi jars in the ground. As making huge amounts of kimchi was better attempted outside, a fine and warm day was preferred: too early was not a good time for kimjang as kimchi would go sour quickly.

Since the 1960’s, another variable appeared other than weather. As the number of salary men grew larger, the number of those whose pay days fell on the 25th of every month also grew, making the 25th the day most people could buy ingredients. Vendors adept at moneymaking, priced their ingredients highest on that day. Up to the Japanese colonial days, the largest number of kimjang- related information was given in early November, or a little after the onset of the winter months. However, it
Before the annual salary system was introduced, there were bonuses beside the monthly pay for festive seasons and kimjang season, a kind of social consideration to help people prepare for the winter. During the agricultural era, the crop situation was the main concern at kimjang time; however, as Korea has changed into a capitalist country, purchasing power to buy ingredients became the greater issue. Previously, we reviewed particular concerns of a Joseon man over

“According to the weather forecast, this year’s kimjang season will be between the 25th and the end of the month... it is because of milder weather than previous years and the pay day (25th)”

Nov. 22, 1961 Kyunghyang Shinmun

“.. Most households are expected to do kimjang between Nov. 25th when most salaried workers including public officials receive their monthly pay and the early part of next month.”

Nov. 18, 1966, DongA Ilbo

“..all of sudden the weather got warm and government and public offices gave out their monthly payroll, and so from the 25th, the kimjang market began bustling with housewives and the prices of ingredients hit their highest.”

Nov. 26, 1970, Kyunghyang Shinmun

Before the annual salary system was introduced, there were bonuses beside the monthly pay for festive seasons and kimjang season, a kind of social consideration to help people prepare for the winter. During the agricultural era, the crop situation was the main concern at kimjang time; however, as Korea has changed into a capitalist country, purchasing power to buy ingredients became the greater issue. Previously, we reviewed particular concerns of a Joseon man over
kimjang as the family head of household. In a capitalist society, the family head's main role for kimjang is to prepare money for it. The article below shows concerns and the heavy sense of responsibility such a man feels about kimjang.

Street vendors began selling rubber gloves. It is kimjang season. Handcarts carrying cabbages and radishes are frequently in and out of the alley ways. It is the annual hill of sighs. Well-to-do friends would laugh just thinking about why a man should make a fuss; it is only about 2,000 won per person. But it is tough to spend 5 ~ 6,000 won more from an already spent paycheck.

When kimjang season comes, salaried employees assume the look of servility. At work, they secretly study their superior’s facial expression; at home they are busy checking the wife’s. That would be why salary men look wasted when kimjang season comes around. To be honest, men are mostly clueless when it comes to kimjang. It is not that a man cares less for his wife, it is more the case that he doesn’t want to hear his wife’s nagging.
A famous henpecked husband and also salaried employee was at ‘Salary Man,’ coffee shop airing his complaint:

“The hardest time of the day is 5 p.m. I can not go home, cannot drop by the bar. I just wander around the cold street. There is no miracle, though, so I had to drag myself home late at night. Upon arriving, my wife begins demanding from me the truth. ‘Other companies paid a kimjang bonus; it is not possible your company didn’t.’ Her suspicion is I received a kimjang bonus and spent it all on drinking. Every night the torture repeats. She would not believe me. It is OK if my company cannot pay a kimjang bonus but my hope is the company will issue a certificate saying ‘This certificate is to prove that so and so company didn’t pay a kimjang bonus.’”

Nov. 12, 1964, Kyunghyang Shinmun

Conclusion

I have reviewed kimchi articles carried in the big three daily papers (Chosun, DongA, Maeil Sinbo) during the Japanese colonial period. Of the 297 articles, 179 articles or 60% were crop reports and price information. Being from the Joseon period, the same concerns and interest are shown in the articles.

In the winter of 2013, we have the same concerns over kimjang. How much to make, where to get the ingredients, how much will it cost, with whom to make winter kimchi, is it going to be tasty... the same concerns as in the old days repeat today. Even those who do not make kimchi themselves, where to get how much kimchi, and would it be possible to get tasty kimchi interests everyone. The basic fact is that no Korean can live without kimchi. Even those who didn’t eat kimchi in their childhood come to like it as they grow older. Not to mention, no Korean could ever give up kimchi stew, kimchi pancake or any other dish made of kimchi. In the advanced industrial era of the 21st century, the
kimjang tradition that was born from the agricultural culture has changed a lot. Most households make their winter kimchi inside and there is no need to worry about cold weather. Concerns for cold damage became the job of producers and distribution center buyers. Trending credit card use and differing company paydays no longer pinpoints the 25th as the busiest day for kimjang. Kimjang manpower became limited to family members, so that nowadays, kimjang is mostly done on weekends when families can get together, which makes it one of the few family gathering for practical purposes other than an ancestor memorial service and festive occasions.

Even those who eat purchased kimchi buy bulk amounts of kimchi during kimjang season and keep them in kimchi fridges. Some people participating in a kimjang event at kimchi factories while others are busy brining kimchi at home with parents or relatives is the modern picture of the kimjang season in Korea. Though various alternatives are made available, kimjang stress and the joy of making kimchi together still exist in different forms though they are no longer as they were.

The kimjang bonus system is no longer; however, companies still pay out for various allowances such as for meals, car maintenance, physical training, vacation, festive holidays, annuity insurance, and long years of service. Kimjang allowance is also included. It signifies that kimjang still constitutes a special feature of Korean culture. We have reviewed historical changes of the kimjang customs. How it will change in the future, we can only watch wait and see.
Kimchi Ingredients and Changes in Kimchi Recipes

Jo, Jaesun
Professor Emeritus, Kyunghee University
Preface

Cooked rice, Doenjangguk (soybean paste soup) and kimchi have traditionally been the basic menu of the Korean food. Flour-based food such as bread and noodles have been added to the traditional menu following economic growth and westernization of Korea, but cooked rice is still the main staple food and kimchi is the most important side dish for Koreans.

Japan and other countries as well eat cooked rice and soybean paste soup but kimchi is considered a representative Korean food for its unique taste and flavour. It is a fermented food made of cabbage and radish with minor ingredients added. It doesn't use heat, therefore retaining a fresh and unique flavor.

At first, it was simple salted greens. But over time, red pepper, fish sauce and other various seasonings were added for less salt which creates fermentation. This is how the improved version of kimchi with its fresh flavor and longer preservation period was developed.

In recent years, while industrial development and economic growth brought more women to the workforce, this made apartments a common form of residence, which made it hard to make kimchi at home. A
growing number of people began eating purchased kimchi, and it created a kimchi industry. Mother’s home made kimchi gradually gave way to factory kimchi, and kimchi ingredients and recipes become standardized. Mother’s home made kimchi gradually gave way to factory produced kimchi, and by standardizing ingredients and recipes, the old traditional kimchi culture changed. As with most foods, the ingredients in kimchi are key to its taste. Let’s review the changes in ingredients and recipes based on old references.

Kimchi ingredients prior to the Goryeo Kingdom

Dated excavated stoneware proves that the agricultural culture in the Korean peninsula began in the Neolithic period 5,000 years ago. At that time, people grew grains of millet and proso which were their staple foods in addition to hunted meat. Additionally, wild plants in the fields and mountains and fruits from trees were part of their diet. Collecting edible wild plants was done based on long experience. Though some were cultivated, most vegetables were not indigenous to the Korean peninsula. Salt was introduced at some unknown point to make pickled vegetables but for what vegetables and how is also not known. Garlic and mugwort appear in the Dangun mythology (the birth myth of Korea) because they were considered miracle foods. Their diet must have included more than just those two greens, but others are not specifically named. Garlic is from West Asia, north of Kashgar or Central Asia and in ancient times it spread to the shores of the Mediterranean Sea. At the time of the pyramids in empirical Egypt, slaves were given garlic to increase labor efficiency; in Greece and Rome, soldiers and athletes took garlic as an invigorant. In consideration of both a place name with the character of ‘san’ meaning

‘garlic’ that appeared in the ＃Silla Bongi＃ (the history of Silla) of ＃Samguk Sagi＃ (‘The Chronicles of the Three Kingdoms’) and a passage that read’s ‘farming began after the Sanwonje (‘garlic garden ritual’)’, it is believed garlic was used from early on. But this garlic was small and of a wild variety.2

As no historical record or relic has yet been found that can prove what vegetables were used in ancient Korea, it can only be presumed by looking through Chinese historical records. The historical record says that in China curled mallow, water parsley, turnip, gourd, cucumber, radish, garlic, green onion, chives, burdock and bamboo shoot were planted in BC 5~6, and it is very likely that some of them were introduced to the area known today as Korea.

Yiyokjeon, Travel journal of overseas countries 異域傳書 included in ＃Zhoushi周書 (history of Beizhou 北周, China) wrote that the vegetables of Baekje are the same as those of China and ＃Suseo 隋書 (history of Su, China) also said the fruits and vegetables of Silla are the same as the Chinese. The oldest agricultural book ＃Qiminyaoshu写 (写) wrote of curled mallow, cabbage, lettuce, water parsley, garlic, scallion, chives, green onion, onion, lily leek, cockle bur, wax gourd, water shield and of how to pickle them. The vegetables mentioned in historical records as imported and planted in Korea are gourd (＃Samguk sagi＃ ‘Chronicles of the Three Kingdoms’), lettuce (Goguryeo, ＃Haedong yeoks ‘The History of the east of the sea country’), cucumber, melon (Goryeo, ＃Haedong yeoksa), yam (Baekje, ＃Samguk yusa ‘The Heritage of the Three Kingdoms’) while many other vegetables were also believed grown in Korea.

In the Goryeo period as well, vegetables were main side dishes. 「Gapo yukyeong」 of ＃Dongguk Yi-Sangguk-jip ‘Collection of Prime Minister Yi’, Yi Kyubo 1168-1241) even wrote poems of cucumber, egg plant, turnip, green onion, and gourd. It says ‘salted turnip lasts over

2 Lee, Chun-Nyong, etc ＃Kimchi, product and Reserch History, 1988
winter’, which is suggestive that vegetables were used for winter kimchi. Turnips of historically European origin of 4,000 years prior was passed down to Japan by way of India, China, and Korea.\(^3\) Considering that ‘Hyangyak gugubbang’ (‘Folk Medicine Emergency Remedies’, the oldest surviving Korean medical text, 1236 ~ 1251), ‘Gani byeokonbang’ (‘Simplified Epidemic Treatment’, a medical book on the treatment of contagious diseases, published in 1525, National Treasure No.1249), ‘Hunmong jahoe’ (‘Collection of Chinese Characters for Teaching Children’, 1527) wrote about the turnip, turnips are believed to have been introduced to Korea before the radish and planted more routinely. Both the leaves and roots of the turnip were pickled. It has a spicy taste to it which follows why the raw turnip was used as a spice.\(^4\)

Radish and cabbage, the most important kimchi ingredients are mentioned in ‘Hyangyak gugubbang’. The radish came first followed by the cabbage, which came much later. The radish is one of the greens with the longest history of known cultivation together with curled mallow, cucumber, turnip, chives and green onion, and it is included in the BC10~ 6 century classic ‘The Shi Jing’. The succulent, fresh sweetness of both the radish and its greens makes both parts an welcome addition to a number of radish recipes. Examples of these are seasoned shredded radish, radish soup, radish kimchi, braised radish, radish pickle, raw radish and others. Radish roots and greens can also be dried and used as feminine relief food, winter side dishes and others. With the development of kimchi, the radish is widely used for Dongchimi (water-based radish kimchi), Jjanji (radish pickle), Seokbakji (cabbage and radish mix kimchi), and whole cabbage kimchi, and as minor ingredients for various foods.

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3. Lee, Chun-Nyong etc, Korea Food culture Center papers, 1988
4. Lee, Seong-Woo, Hanguk sikgyeong daejeon, 1981, p455, The medicinal herbs included in the ‘Hyangyak gugubbang’ are easy to get and very effective in curing illness of Koreans. This encyclopaedia on foods is composed of three volumes, with an appendix that has simple explanations on 170 kinds of folk medicines.
Different from the radish, the cabbage came much later. It is divided from turnips and its first appearance was in the Period of North and South Dynasties (221~589) of China. The original cabbage remains an insignificant cultivated vegetable no more distinctive than wild greens. Cabbage originated from somewhere near the Mediterranean Sea and was introduced via Tibet to China where it was cultivated into Chinese cabbage. The cabbage of China is believed introduced to Korea but remain insignificant until mid Joseon period given that the radish and turnip are often mentioned in historical records while records of cabbage are scarce in the late Joseon. Hyangyak gugubbang wrote that ‘cabbage has a sweet gentle taste to it and without poison.’ Sallimgyeongje (around 1710) wrote the optimum seeding and harvesting period for cabbage is early February seeding then mid March harvest; early May seeding then late June harvest; and after late July for autumn seeding. Bukhakui 北學議 (Park je-ga, 1778) that was published around the time of Sallimgyeongje wrote cabbage has short, wide and thick leaves and when it grows big it becomes like a turnip. It is

5 Jo, Jae-Sun Reserch of Kimchi, 2000
believed that old cabbage has less full leaves and longer roots, something in between the current cabbage and turnip. It also wrote every year new seeds should be brought from Beijing and planted in Seoul to get good cabbage. If Seoul seeds are used for three years, it becomes a turnip.  

「Nongawolryeong」(‘monthly calendar for farmer’, 1619) mentions cabbage in the section of Baekno (‘white dew’, 15th division of the 24 divisions in the lunar calendar, it falls on around September 9 by the solar calendar) and in 『Nongawolryeong』(‘monthly calendar for dry field farming’) of 『Saekgyeong 稟經』(‘book of harvest’, a textbook on farming practices written by Park Je-ga, the famous practical learning scholar of the late Joseon period) wrote that cabbage seeding is to be done in April and June. As there is a big time difference between radish and cabbage in China, when they were introduced to Korea shows a similar difference. The radish is presumed to have been imported to Korea during the Unified Silla period, and the cabbage in Goryeo (918~1392). 

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6 Jo, Jae-Sun ▶Reserch of Kimchi◁, 2000
7 Lee Seong-woo ▶Hanguk sikgyeong daejeon◁, p167, 「Bukhakui 北學議」 deals with the economy in general such as agriculture, commerce, and labor intensive industry. It was an influential reference that its article on agricultural management was quoted in 「Imwon simyukji」.
Wang Geon unified Korea by absorbing Silla and became the founder of the Goryeo Kingdom. He respected Buddhism and chose a farm encouragement policy. During his reign, peace was maintained and agriculture was developed; in particular, rice farming was expanded and rice became a staple food for Koreans.

"Sangayorok 山家要錄" (a farming and cook book written by Jeon Sun- ui, a royal physician, published in and around 1450. Having 229 recipes that show a comprehensive picture of foods in the 1400s), the first farming book in Korea detailed how to grow watermelon, wax gourd, gourd, curved mallow, eggplant, turnip, radish, leaf mustard, ginger, garlic, green onion, scallion, chives, lettuce, leaf beet, water parsley and how to make kimchi using them. The book has a lot of recipes for turnip kimchi suggesting that the turnip was used extensively.

Kimchi ingredients during the Joseon period

From the beginning, the Joseon Kingdom adopted a farming encouragement policy, and agriculture developed until king Seongjong (1494). In particular, rice farming was encouraged, and rice became the staple food for Koreans. The reign of the tyrant king Yeonsangun (r.1494~1506, the 10th king of Joseon) saw foreign invasion, rebellion, bad crops, and party strife continue for almost 200 years and the people fell into a state of distress. Frequent foreign invasions and the Korean envoy’s visits to foreign countries exposed Korean intellectuals to western civilization, revolutionized their view of the world, and produced scholars of the positive study of ancient documents. Some examples of scholars published books include Park Se-dang, who wrote "Saekgyeong" (‘book of harvest’), and Hong Man-seon for "Sallim

8 Kim, Young-Jin, "sangayorok", 2004
In the early part of The Annals of King Sejong, it is written that bamboo shoot kimchi, water parsley kimchi, turnip kimchi, and chive kimchi are put on the table for memorial ceremonies. Gosa choalyo (encyclopaedia, compiled in 1554, the 9th year of King Myeongjong, on submission and relationship with neighboring countries and on everyday life) which came out around the publication of The Annals of King Sejong has explanations in detail on how to grow cucumber, ginger, and green onion, that were used as minor ingredients or seasonings for kimchi.

Koreans instantly loved the hot taste of peppers. They enjoyed a lot of wild herbs and vegetables flavored with spicy seasonings. Gani byeokonbang of the Goryeo Kingdom called green onion, scallion, garlic, ginger and haechae ('sea vegetable') the ‘five spicy vegetables’ and chives, scallion, garlic, green onion and ginger as the ‘five hot vegetables’. Beside these, wild chives, canola, small green onion, coriander, water parsley, leaf mustard, mustard, turnip and others were used as flavor enhancers. Some of them are mountain vegetables, some planted, some imported and most of them were used raw, chopped or minced.

Vegetables of the Goryeo period and those included in the early Joseon period book Hunmongjahoe It contains 3,353 characters with pronunciation and explanations in Hangul (‘Korean language’). They are arranged sixteen to a page according to a logical classification, developed from the rudimentary system in Cheonjamun ‘The Thousand Character Classic’, and refer to such topics as astronomy, geography, flora, fauna, the humanities and so on.) are curled mallow, eggplant,

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9 Gosa choalyo, first published by Eo Suk-gwon in the 9th year of King Myeongjong were revised and enlarged more than 10 times in a 200 year period. It is a small encyclopedia of daily business for public officials. It is organized by subject including food.
chives, scallion, water parsley, gourd, radish, turnip, cabbage, leaf mustard, and lettuce. Of those, the turnip, radish, eggplant, and cucumber were used in kimchi but cabbage was not yet a main ingredient. The vegetables were pickled separately.

The kimchi-related vegetables mentioned in the "Domundaekjak" ('Chewing with the mouth wide open in front of butcher shop', an analogy of the joy of thinking about impossibility in reality) included in the "Seongsobu bugo" (poetry and proses of Huh Gyun, 1569~1618, a representative poet of Joseon) and in "Hanjeongnok" ('Stories of the people who lived a free and easy life') are bamboo shoots, day lily, water shield, radish, curled mallow, scallion, water parsley, wax gourd, eggplant, cucumber, gourd, leaf mustard, ginger, mountain leaf mustard, green onion, chives, wild chives, and garlic. In the Agriculture chapter of the book was written ‘the white vegetable’ seeding is to be done July or August. It is not clear if the white vegetable refers to cabbage or butter bur. "The Annals of the Joseon Dynasty" writes that in the 26th year of King Seonjo (1593), radish was widely used to make kimchi, suggesting cabbage was in the test stage of cultivation.

Agriculture Section tells us flavor enhancers like ginger, green onion, garlic and scallion were more widely used than they were in Goryeo period and yellow seaweed, sea staghorn leaf mustard were included in everyday vegetables. In other words, turnip, radish, eggplant, cucumber were most widely used vegetables and cabbage is believed was in introduction stage.10

In the "Jibongyuseol" ('Classified essays of Chibong', an encyclopaedic collection of essays in 25 books by Yi Su-gwang 1563~1628, whose brush name was Jibong ‘immortality -mushroom peak’) published in 1614 included lettuce, scallion, ginger, eggplant, jukini, water melon, gourd, curled mallow, and chili pepper. Chili pepper from Japan was noted as poisonous and thus called ‘Japanese mustard’.11

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Chili pepper originated from South America, and was introduced to Spain by Columbus in 1493. It then spread to middle Europe in the 16th century, to China in the 17th century, and then to Korea before the 1600s. In recent years, discussions cropped up over where the chili was actually from. Some said it was imported from Japan before or after the Imjin Wars (the Japanese Invasion of Korea in 1592) while some said Korea delivered it to Japan based on old documents where the letter ‘cho’ appears and which is interpreted as ‘chili pepper’. But the general opinion is that chili pepper came from Japan around the Imjin Wars.

Sasi Chanyocho (agriculture book by an unknown author) included in the NonggaJipseong (agriculture book by Sin Sok, published in 1655) writes of green onion, garlic, chives, scallion, and ginger suggesting they were widely used as spices. The turnip, cucumber, eggplant, water parsley, radish, lettuce, leaf mustard, gourd, iris, and balloon flower are also introduced in the book and they are included as ingredients of kimchi.

11_ JibongYuseol, ‘Classified essays of Jibong’, an encyclopaedic collection of essays in 25 books by Yi Sugwang 1563~1628, whose brush name was Jibong ‘immortality - mushroom peak’. Vegetables and chili pepper
12_ Jo, Jae-Sun Research on Kimchi, p127
13_ Hanuk sikgyeong daejeon, Lee Seong-woo, p149. Sasi chanyocho, (‘excerpt of Sasi chanyo’) quoted Sasi chanyo (a Chinese agricultural book, compiled in Tang Dynasty) published in China. However, it is an original separate book compiled on the needs for Korean farming. It has explanations on gardening, added Korean annotations, and introduces traditional know how as well.
14_ Sallim gyeongje, Imwon sibyukji as well quoted Sasi chanyocho a lot.
“Eumsik Dimibang” (‘Dimibang’ refers to a king’s dining room. This book is written by a woman of Andong Jang clan, 1598~ 1680) writes in detail on how to make various kimchi, for example, white gourd kimchi (white gourd, salt), garlic kimchi (garlic, akane, salt), mountain leaf mustard kimchi, uncooked pheasant kimchi (cucumber, salt, pheasant), and nabak kimchi (watery kimchi, radish + salt). Pheasant kimchi is believed a special delicacy, and not an everyday side dish. In “Saekgyeong” (Park Se-dang, 1676) a comprehensive book on agriculture wrote of cucumber, water melon, white gourd, gourd, burdock, curled mallow, eggplant, turnip, radish, leaf mustard, ginger, garlic, green onion, scallion, and lettuce; in particular, it has a cabbage kimchi recipe. The book tells us that until then, radish and turnip were the main ingredients for kimchi. Also mentioned were soy sauce pickled kimchi and curled mallow kimchi.

“Sallimgyeongje” (written by Hong Man-seon, b.1664~ d.1715) is the most systematic book on the Joseon Dynasty agriculture. It writes in detail on all kinds of crops, varieties, cultivation method, insect control, preservation and what to make. It has been enlarged into “Jeungbo Sallim Gyeongje” (Yu Jung-im, cir.1760). Kimchi related vegetables appear in the book such as cucumber, white gourd, water melon, melon, pumpkin, ginger, green onion, garlic, chives, scallion, burdock, eggplant, water parsley, turnip, leaf mustard, cabbage, lettuce, butter bur, curled mallow, crown daisy, chili pepper, myoga, honeydew, cockscomb, fatsia shoot, beefsteak plant, leaf beet, balloon flower, deodeok root (Benth et Hook), and bamboo shoots. Of cabbage, the

15_ Umsikdimibang 膳食是議方, the first cook book written in Korean on traditional Korean foods, by Andong Jang clan woman, c 1670. While other encyclopedias on foods written by man quoted Chinese books, it carries traditional Korean foods and recipes. Kimchi is mentioned in the section of vegetables and fruits.
16_ Enlarged Sallim gyeongje, corrected the errata in the book of Sallim gyeongje (‘Mountain forest economy’) and added 12~ 13 items to it, making the total volume almost double the Sallim gyeongje.
book writes that cabbage cultivation is all through the year, for example, seeding to be done in early February is harvested in mid March; seeding in early May can be harvested in mid June; and in autumn the seeding takes place after the Festival of the Weaver (Star Festival, July 7th in the lunar calendar). Chinese cabbage is of good quality and seeds were imported from China. Cabbage was introduced to Korea early; however, it was not cultivated nationwide for any length of time due to poor cultivation techniques and low yield.

In Songdo, the capital of the Goryeo Kingdom, cabbage cultivation techniques witnessed a big improvement in the late 14th century. At the time, the cabbage cultivation technique in Songdo (currently Gaeseong) was as good as for ginseng, known nationwide as the local specialty. The development followed the opening of the Joseon Dynasty, when Goryeo civil and military officials who retired from public office and their descendants began farming. Super quality Gaeseong cabbage was distributed to the regions north of Seoul and Seoul cabbage was mainly cultivated in the regions south of Seoul. The two species were half closed cabbage. Today’s Chinese cabbage with a head was introduced to Korea by the Japanese on a model farm in Ddeukseom in 1906.

Cabbage kimchi first appears in the "Enlarged Sallim Gyeongje" (‘Enlarged mountain and forest economy’) in which is written about 41 kinds of kimchi. Various kimchis and their ingredients are:

- Bamboo shoot pickle (bamboo shoot, salt), whole eggplant kimchi (eggplant, salt), stuffed eggplant pickle (eggplant, garlic, salt), cabbage kimchi (cabbage, fish or meat, salt), stuffed cucumber pickle (cucumber, garlic, salt), pickled cucumber (cucumber, ginger, garlic, pepper, chives, green onion), white gourd kimchi (white gourd, cockscomb, ginger, green onion), radish water kimchi (radish, cucumber, eggplant, pine mushroom, ginger, green onion, akane), young radish kimchi (chonggak kimchi: radish, garlic, sea staghorn, cucumber, pumpkin, white gourd, eggplant, pepper, akane, leaf mustard, chives), leaf mustard kimchi (leaf mustard, salt), and hyangpo kimchi (iris).
Around that period, minor ingredients were added to the main materials of turnip, radish, eggplant, and cucumber and cabbage use became widespread. Cultivation of chili pepper became a general practice which brought revolutionary changes to the recipe and taste quality of kimchi. "Gyuhap chongseo" (An encyclopedic book on everyday living and economy, written by Bingheogak Lee, cir. 1815) writes of Seokbakji (kimchi with radish, cabbage with various sea foods: radish, cabbage, leaf mustard, salted yellow corvina, salted large-eyed herring, eggplant, white gourd, salted oyster, fresh blowfish, octopus, top shell etc.), white gourd seokbakji (white gourd, salted yellow corvina, sea staghorn, ginger, pepper), dongchimi (watery radish kimchi; radish, eggplant, pear, citron, green onion, ginger, pepper, pomegranate) and others. What is distinctive in the book is that fish sauce began to be used extensively. While fish sauce was mentioned in the documents of the Three Kingdoms period, why it came to be used for kimchi as late as in the 1800s would be a worthy research avenue. The book also mentioned dongchimi (watery radish kimchi; radish, cucumber, pear, citron, green onion, pepper, ginger, salt), mountain leaf mustard (radish, water parsley, mountain leaf mustard, turnip, green onion, Korean angelica, soy sauce), Yongin cucumber pickle (cucumber, salt, washing water of rice), white gourd seokbakji (white gourd, salted yellow corvina, sea staghorn, ginger, green onion), pepper seokbakji (radish, leaf mustard, cabbage, cucumber, eggplant, white gourd, sea staghorn, pepper, top shell, octopus, fish sauce (made of yellow corvina, Chinese herring, large-eyed herring, oyster, garlic), fish & meat kimchi (beef, fish head and skin, cabbage, radish, leaf mustard, cucumber, zucchini, pepper leaves, pepper, sea staghorn, water parsley, garlic, green onion, ginger), and abalone kimchi (abalone, citron skin, pear, salt water, radish, ginger, green onion). Seokbakji is extravagant kimchi made of all kinds of vegetables and uses fish sauce instead of salt as well as

various seafood such as octopus, abalone, top shell and others. It was as late as in the 18th century that modern type cabbage kimchi became complete with cabbage used as the main ingredient and chili pepper, ginger, green onion, garlic, akane, leaf mustard, sea staghorn, and chives used as spices with condiment vegetables, fish sauce, seafood or/and meat mixed in it.

ʻImwomsibyukjiʻ (Seo Yu-gu, 1835, an encyclopedic book on farming, forest, medicine published in the late Joseon period) also writes about most of the vegetables included in the ʻEnlarged Sallim Gyeongjeʻ, the only difference being that vegetables are mentioned in the order of radish, cabbage, cucumber, eggplant different from bamboo shoot, eggplant, cabbage, cucumber, and radish in the Enlarged Sallim Gyeongje, which suggests that the radish and cabbage became the main ingredients in kimchi. The number of kimchi variations was reduced as various vegetables which made individual kimchis changed into minor ingredients for radish and cabbage kimchi. Haejeobang (also called seokbakji) is a mix of radish, eggplant, cucumber, cabbage, leaf mustard, salted yellow corvina, blowfish, ginger and others. A distinctive feature of Haejeobang is it uses a lot of fish sauce.\(^{18}\)

In the ʻDongguksesigiʻ (‘Record of annual events and seasonable customs’, by Hong Seok-mo, 1849) appears pickled kimchi using turnip, cabbage, garlic, and Chinese pepper in the section of October, followed by turnip kimchi, cabbage kimchi, watery radish kimchi, pickled kimchi seasoned with salted fish in November section. Some kimchi used brine shrimp and kimchi made with soy sauce appears in the book. Between 1815~ 1906, cultivation of the whole cabbage with the top tied, 1850~ 1860 Seoul and Gaeseong cabbage, they are believed the beginning of whole cabbage kimchi and bossam kimchi (wrapped kimchi).

\(^{18}\) ʻHanguk sikgyeong daejeonʻ, Lee Seong-woo, p85. ʻImwon simyukjiʻ divided all things needed for the life of farming communities into 16 sections and wrote introduction and particulars for each section. It wrote over 900 references books in details.
Kimchi ingredients after the 21st century

Joseon mussang sinsik yolijebeop (‘New Korean food recipes that have no competition’, Lee Yong-gi, 1943) is a Korean cook book based on Imwonsimyukji and some added modern foods. Various kinds of kimchi and ingredients mentioned in the book are as follows:  

- Whole cabbage kimchi (cabbage, salt, garlic, green onion, pepper, ginger, leaf mustard, water parsley, sea staghorn, radish)  
- new style whole kimchi (cabbage, salt, topping (pepper, green onion, garlic, ginger), manna lichen, chestnut, pear, brisket of beef, port, water parsley, leaf mustard, salted yellow corvina, salted Chinese herring, salted sea beam, salted yellow tail, various fish sauce, fresh abalone, fresh seashell, fresh octopus, fresh oyster, fresh clam, pine nut, radish, cucumber, dried Pollack, dried cod, ox bone soup. Octopus, yellow corvina are the best for topping, too much dried Pollack or dried cod make kimchi soupy  
- Dongchimi (watery radish kimchi; radish, salt, pepper, green onion, garlic, ginger, salmon roe, cockscomb, sea staghorn, pickled cucumber, pear, citron, honeyed- kimchi soup, mildly pickled bamboo shoot, pomegranate or/and pine nut topping,  
- radish kimchi (radish, topping, pear, pepper, sea staghorn, young cucumber, leaf mustard, white gourd, akane, chive, garlic, water parsley, eggplant)  
- early spring cabbage kimchi (vinegar kimchi) (early spring cabbage, water parsley, pepper, green onion, garlic, soy sauce, vinegar, sugar)  
- young radish kimchi (young radish, cabbage, water parsley, topping, flour, cooked rice)  

Joseon Mussang sinsik yolijebeop (‘New Korean foods recipes that has no competition’), Lee Yong-gi, Main frame of the book is selected items from Imwon simyukji and new recipes and processing methods have been added. It was first published in 1924, enlarged edition in 1936, and 4th edition in 1943. Part of the title of the book ‘Mussang’ means ‘no Korean cook book better than this’. 790 recipes of 63 categories are included in the book. It is considered a bridging book linking traditional recipes and modern recipes.
• fish sauce kimchi (cabbage, radish, pepper, green onion, garlic, water parsley, leaf mustard, sea staghorn, salted yellow corvina soup)
• seokbakji (radish cabbage mix kimchi; radish, cabbage, leaf mustard, yellow corvina sauce, salted Chinese herring, salted large-eyed herring, cucumber, white gourd, abalone, seashell, octopus, sea staghorn, green onion, garlic, pepper, ginger, water parsley, salted oyster sauce)
• Nabak kimchi (sliced radish water kimchi; radish, pepper, green onion, water parsley, garlic, pine nut, pine mushroom, sea staghorn, akane, red carrot)
• soy sauce kimchi (cabbage, radish, pepper, green onion, garlic, ginger, manna lichen, oak mushroom, pear, chestnut, water parsley, leaf mustard, pine nut, sugar, soy sauce)
• leaf mustard kimchi (leaf mustard, pepper, green onion, garlic, water parsley)
• oyster kimchi (oyster, pepper, green onion, radish, salt)
• chicken kimchi (cubed cucumber, pepper powder, chicken)
• mountain leaf mustard (radish, turnip, pepper, garlic, green onion, mountain leaf mustard)
• cubed radish (radish, cabbage, fish sauce, topping, yellow corvina, yellow tail, boiled pork, beef brisket)

Of the above kimchis, the new style whole kimchi is a luxury version using diverse and expensive ingredients. Cook books published during the period of 1987~1995 and the referenced mentioned in this article are shown in Table 1. In case of whole cabbage kimchi, it uses cabbage, radish, pepper powder, garlic, ginger, water parsley, fish sauce as main ingredients and in most cases use green onion, oyster, leaf mustard. In case of ggakdugi, it uses fewer ingredients than for cabbage kimchi; radish, pepper powder, garlic, green onion, ginger, salted shrimp are the main ingredients, plus sugar and oyster. For bossam kimchi (wrapped kimchi), other than the main ingredients, the minor ingredients are chestnut, pine nut and pear, mushrooms and seafood.
### Table 1: Ingredients for various kimchi

<table>
<thead>
<tr>
<th></th>
<th>Over 70%</th>
<th>Over 50%</th>
<th>Over 30%</th>
<th>Less than 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>whole cabbage kimchi</strong></td>
<td>cabbage, radish, water parsley, garlic, ginger, pepper, salt, oyster</td>
<td>green onion, small green onion, salted shrimp, sugar</td>
<td>shred pepper, whole sesame, anchovy, sea staghorn, date, glutinous rice, un</td>
<td>sea staghorn, date, glutinous rice, unpolished rice, licorice, red pepper, small green onion, chestnut, pine nut, pear, abalone, squid, pollack, shrimp, yellow corvina, salt-pickled shrimp caught in June, brine shrimp, anchovy</td>
</tr>
<tr>
<td><strong>bossam kimchi</strong></td>
<td>cabbage, radish, water parsley, leaf mustard, shred pepper, garlic, ginger, pepper powder, octopus, oyster, chestnut, pine nut, pear, salt</td>
<td>small green onion, sugar, green onion, salted shrimp, oak mushroom, manna, lichen, date</td>
<td>small green onion, whole sesame, carrot, persimmon, ginkgo, walnut, whole sesame, glutinous rice, beef, swordfish, pollack, shrimp, cod, dried pollack, yellow corvina, abalone, fresh blow fish, frozen pollack, anchovy, salt-pickled shrimp caught in June, salted yellow corvina, salted croaker, meat broth, cucumber</td>
<td></td>
</tr>
<tr>
<td><strong>ggakdugi</strong></td>
<td>radish, garlic, ginger, pepper powder, green onion, water parsley, leaf mustard, sugar, oyster, shrimp, salt</td>
<td>small green onion, oyster</td>
<td>leaf mustard, whole sesame, sea staghorn, shred pepper, shrimp, small green onion, pine nut, red pepper, anchovy, fermented anchovy sauce</td>
<td></td>
</tr>
<tr>
<td><strong>oyster ggakdugi</strong></td>
<td>radish, garlic, ginger, pepper powder, small green onion, water parsley, leaf mustard, sugar, oyster, brine shrimp, salt</td>
<td>cabbage, shred pepper, green onion, small green onion, whole sesame, pine nut, date, salt-pickled shrimp caught in June, glutinous rice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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20 A study on standardization of kimchi and pickled vegetable. 

Dongdae nonchong 9, Jo, Jae-Sun.
<table>
<thead>
<tr>
<th>Ingredient Type</th>
<th>Over 70%</th>
<th>Over 50%</th>
<th>Over 30%</th>
<th>Less than 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dongchimi</td>
<td>radish, garlic, ginger, green pepper, pear, salt</td>
<td>green onion, leaf mustard</td>
<td>sea staghorn</td>
<td>small green onion, red pepper, cucumber, shred pepper, pomegranate, citron, pine nut, sugar</td>
</tr>
<tr>
<td>Young radish kimchi</td>
<td>young radish green, garlic, ginger, salt, red pepper</td>
<td>wheat flour, pepper powder</td>
<td>green pepper, chive, sugar</td>
<td>small green onion, chive, barley, salted shrimp, onion, cucumber, pear, young radish, glutinous rice starch, anchovy sauce, water parsley, green onion, small green pepper, whole sesame, fish sauce, soy sauce</td>
</tr>
<tr>
<td>Stuffed cucumber</td>
<td>cucumber, salt, garlic, pepper powder, ginger, chive, green onion</td>
<td>brine shrimp, sugar</td>
<td></td>
<td>radish, small green onion, shred pepper, whole sesame, onion, chive, carrot, chestnut, artificial flavor enhancer</td>
</tr>
<tr>
<td>Sliced radish kimchi</td>
<td>radish, water parsley, garlic, salt, ginger, cabbage, pepper powder, green onion</td>
<td>red pepper</td>
<td></td>
<td>shred pepper, sugar, pine nut, small green onion, pear,</td>
</tr>
</tbody>
</table>

*Based on frequency in references*

In the past, because of grain-based staple food, Koreans preferred rich-flavor side dishes. These days, as people eat a lot of meat and protein-based foods, fresh taste side dishes are favored and kimchi as well uses less ingredients. In response to consumer demand for healthy food, medicinal herbs and healthy ingredients are much preferred.
History of Kimchi making

The basic method of storage and preservation of foods was drying and pickling. As vegetables contain water, they are hard to dry, need to be macerated to eat, preserve in salt is considered better as it is simple and it keeps vegetables longer while retaining its original shape. In case of vegetables preserved in salt, fermentation occurs due to the work of lactic acid bacteria which gives it its fresh taste and increased preservation period. To preserve vegetables in salt is pure happenstance. But pickling changed into fermentation stands for a significant development in the history of food processing. Korean kimchi which was a simple vegetable pickling developed into a unique food with various mixes of fish and shellfish, spices, seasonings, fish sauce, and toppings is unprecedented in the world.

The first record of a pickled vegetable appears in Gapoyukyeong of Dongguk Yi-Sangguk-jip (‘Collection of Prime Minister Yi’ Yi Kyubo 1168-1241) which says ‘radish green is pickled to eat in winter’. In the Sanchon japyeong by Lee Dal-chung (1385 ~ ?) in late Goryeo period also appears ‘yeomji’ meaning ‘salted green’. During the Goryeo period, salted green was an important winter side dish, and winter kimchi making in autumn is believed to have begun around that period.

In the Hunmong jahoe (‘collection of Chinese Characters for Teaching Children’, 1527) published in the Joseon period, the Chinese character ‘unitOfWork’ meaning ‘kimchi’ is translated ‘dimchaejo’ in Korean, a palatalization of the word ‘chimchae’. Samguk-ji (‘Romance of the Three Kingdoms’) writes the Chinese character ‘unitOfWork’ which is called ‘chimchae’ in Korean is a gerund describing ‘making kimchi’ and it suggests a watery kimchi, a unique feature of kimchi different from any pickled vegetable in other countries.

In early Joseon period, a vegetable preserved in salt changed to a less salty fermented kimchi. In the farming section of the Seongso bubugo
published in 1569, farming methods to grow spices like ginger, garlic, green onion, and scallion are given in detail, suggesting they were used as condiments for kimchi. Less salty kimchi began to be made around that period, and it is believed the beginning of fermented kimchi as low-sodium brought lactic acid fermentation.

The use of chili pepper around the Imjin Wars (Japanese Invasion of Korea in 1592) brought evolution to kimchi. It gave kimchi its unique spicy taste; enabled the use of fish sauce as it reduces fish smell; made kimchi look delicious from its red coloring; and thus made quality kimchi. Chili pepper is found to control fermentation, prevent kimchi from going bad with its antioxidative activity, and improve immunity and fat metabolism, as an aid in losing weight.

†Umsikdimibang 養製法 (the first cook book written in Korean on traditional Korean foods, by Andong Jang clan woman, c1670) lists various kinds of kimchi including salty kimchi, less salty kimch, kimchi without salt, meat kimchi and others. †Enlarged Sallim Gyeongje (1760) tells us that cabbage came to be used in earnest which is the beginning of cabbage kimchi. In other words, simple salt pickled kimchi was developed to have many varieties including seokbakji (cabbage and radish mixed kimchi) and various spices came to be used as well such as pepper, green onion, garlic, ginger, akane, leaf mustard, sea staghorn, chives, fish, meat, and sea foods.21

†Gyuhap chongseo (1759–1824) introduces seokbakji mixed with various minor ingredients and fish. Processing was much more complicated than before in that the cabbage was first pickled with salt, drain off of excess water, rinsed and then mixed with various ingredients. For longer preservation, coins were used.

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21 †A study on Korean traditional fermented foods, Jang, Ji-hyeon, 118, Suhaksa publishing co., 1989
Using various condiments and minor ingredients is the uniqueness of Korean kimchi. The use of various spices began from the Goryeo period and kimchi from the Joseon period with chili pepper and fish sauce came to be a representative Korean kimchi. After the mid Joseon period, the standard kimchi making process became salt cabbage, rinse it and then mix with various ingredients. Kimchi to have some soup is the difference of Korean kimchi from the vegetable pickling of other countries. The current style kimchi came into being when Chinese cabbage was imported from China and Koreans began to make whole cabbage kimchi.

With agricultural population moved to cities and apartment living became prevalent, it became hard for people to secure a space for jangdokdae, a platform for crocks of kimchi, sauce, and condiments. Kimchi fridge was developed in the 1980s as a solution to the problem, and it became possible for every household to make kimchi all through the year. Of the entire kimchi making process, pickling is the hardest most cumbersome part. But suppliers came up with providing salted cabbage and kimchi making became much easier. Housewives buy salted cabbage, and then all they need to do is get all the other ingredients and seasonings together, put them in cabbage, and keep them in the kimchi fridge. To provide various ready-made minor ingredients with seasonings was attempted; however, it is still in the experimental stage as it is hard to satisfy individual preferences.

Current cabbage kimchi and kimchi making is not expected to change much in the near future, however, low-sodium, changes in seasonings, kimchi as healthy food and development of special kimchi meeting other special needs should continue.

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22_ "A study on Kimchi", Jo, Jae-Sun, p357, Yulim munhwasa, 2000
Development of commercial Kimchi

Home-made kimchi for overseas Koreans living in places where kimchi ingredients were not easily available is the beginning of the commercialization of kimchi. Considering the history of Korean immigration, the time spans from over 100 years ago. Full-swing commercialization of kimchi began at the time of the Korean War when factory-made kimchi was supplied for the armed forces. Afterward, kimchi was exported to middle east countries for Korean workers and to Vietnam for the Korean armed forces. With the industrial development of Korea, domestic industries emerged important consumers of commercial kimchi. But more to the point, it was more or less a home-made kimchi made in large quantity at a place other than home. In the 1980s, when the Japanese acknowledged the value of kimchi and began importing it, expansion and modernization of manufacturing facilities began in earnest. Around the time of the 88 Seoul Olympic Games, the Korean government’s effort for globalization of Korean foods marked an important turning point in the kimchi industry. Much effort was poured into the improvement of manufacturing facilities, process innovation, and quality control.

What is most important in the commercialization of kimchi is to make kimchi suited to the taste of consumers. It, however, is almost a ‘mission impossible’ to make kimchi satisfying to everyone’s preference when they are used to their own home-made kimchi taste, not to mention kimchi uses a lot of varied ingredients and limitless mixing ratios. Nevertheless, for commercialization of kimchi, the development of a standard kimchi suited to the widest possible spectrum of consumers is a weighty question to be solved. As fermentation continues even in the process of delivery, how to increase product life span is the second important question to solve. Canned kimchi is one way for longer preservation of kimchi. As early as in the
1950s, canned kimchi was made available by Koreans who immigrated to America and in Korea as well in the 1960s. Canning is simple and an easy way to preserve food; however, the technology is hard to apply to fresh vegetable food like kimchi that is not heated. If it is heated, it becomes a kimchi casserole: an entirely different type of food. Heat-resistant retor pouch packing was developed, though not successfully, yet, due to vulnerability loss of quality from heat.

Research is being made on the development of drying kimchi or frozen kimchi for longer preservation and a commercialization attempt fell short of success. Using preservatives has also been tried but as only natural preservatives can be used, no successful method has yet been developed aside from keeping it in the fridge. Some companies developed enzymes for maturing & fermentation to improve the taste and preservation. When the enzymes are successfully developed, natural fermentation based kimchi quality control and preservation will witness epoch making development.

In recent years, in response to the natrium reduction movement, the development of a low-sodium kimchi emerged as an urgent issue.

Kimchi production facility mechanization and automation has been made active since the 1980s. Radish and cabbage wash equipment, cutting machine, mixer, packing machine, and foreign substance finder are being used effectively.

A current trend regarding kimchi is that with conspicuous rice consumption on the decrease, kimchi consumption is also decreasing. Factory made kimchi continues to grow over the decrease in homemade kimchi.

While each home uses ingredients for their preferred taste, mass produced kimchi has to find standard condiments that would suit a wider cross section of consumers. As a result, the number of ingredients has been reduced and kimchi currently tends to be sweet, spicy, and less salty than before.

In order to make kimchi known more in international food society, development of new concept kimchi transcending the frame of
traditional kimchi and new menu items using kimchi is much anticipated.

Conclusion

The kimchi which is believed to have been a side dish for Koreans prior to the Three Kingdom’s period (4~7th centuries) was at first a collection of pickled mountain vegetables. As the agricultural era began, vegetables suited to be kimchi ingredients were selected and cultivated. The turnip, radish, cucumber, and eggplant were the most widely used ingredients from before the beginning of the Goryeo Kingdom while a variety of other vegetables were used in addition. At first, vegetables preserved in salt was the primitive form of kimchi but from early Goryeo, various spices were introduced as minor ingredients; less salt was used which led to the creation of a fermented kimchi. In the 18th century, chili pepper and fish sauce began their use and cabbage became a main ingredient of kimchi. It was the beginning of the kimchi of today. Since then, there were no big changes in kimchi making; however, the mixing ratio of minor ingredients and condiments are changing little by little to satisfy changed preferences of people following dietary life changes. These days, most households use pickled cabbages supplied by kimchi companies while the kimchi fridge replaced the platform for crocks of kimchi and sauces platform of the past.

With the Miracle of the Han River, Korea has made unprecedented economic development and now has joined the ranks of advanced countries. Globalization is taking place in every aspect of Korea including Korean foods, though slight and slow. Various traditional Korean foods including kimchi are being exported overseas and foreign foods are being imported as well, a true era of internationalization. A Korean’s dietary life of the past that relied heavily on rice and kimchi is no longer; however, the recent health conscious consumerism found
kimchi an excellent health food, and kimchi sales are on the rise. Based on limited references, this article has reviewed that kimchi, a must accompaniment to rice, went through many phases: from simple salted vegetables to quality side dish, then to health food. In the rapidly changing circumstances, mother’s home-made kimchi gave way to mass produced factory kimchi and kimchi status in Korean dietary life is not one of the past. However, as long as rice is a staple food, kimchi will remain paired to rice for a long, long time.
Kimchi and Kimjang Culture
05

Korean Kimchi and Japanese Tsukemono

Asakura, Toshio
Professor, Japan National Museum of Ethnology
Preface

My understanding of the objective of this symposium is to reconfirm that kimchi and kimjang culture, unique to Korea, is worth safeguarding as an Intangible Cultural Heritage of UNESCO and to review the cultural asset of Kimchi from the perspective of the humanities and social science. I am being asked to compare Japanese tsukemono (つくれもの,漬物) culture to Korean kimchi culture.

My major is ethnological studies on the Korean society with an emphasis on ‘foods’ but I am but a stranger to Japanese food culture. In this article, first, I will review likenesses and differences between Japanese tsukemono and Korean pickled vegetables based on previous studies on the subject. Second, a comparison will be drawn of the two from a cultural perspective; and third, a review on ‘Japanese kimchi’ from an ethnological point of view in such a way as to provide a clue to the rediscovery of Korean kimchi. That, I believe, is the entrusted mission to this Japanese presenter.
Korean Kimchi and Japanese Tsukemono

History

Using seawater can make less salty tsukemono. Tsukemono is made through repeated soaking and drying vegetables in seawater for extended period preservation. By the Nara period, through exchanges with countries on the continent, and for other than sea water pickling, methods were introduced to Japan such as salt pickling, and salted vegetables soaked in sake cake and in soybean paste. In Chapter 39 ‘Royal Kitchen’ of Engishiki published in 927 mid Heian period, 14 kinds of spring vegetable pickles such as shepherd’s purse, bracken, thistle, butterbur, and giant knotwood and 35 kinds of autumn vegetables including gourd, radish, eggplant, and myoga are referenced. There is no record of Umeboshi in Engishiki.

In the mid Heian period, Emperor Murakam’s illness and cure with umeboshi and konbu teac (kelp tea) are part of an old record on Umeboshi. Eventually, the use of umeboshi diversified into medicine, vinegar, and condiment, and from the Kamakura to the Muromachi periods, Japanese apricot cultivation and umeboshi-making spread nationwide.

During the Edo period, various seasonings and various types of tsukemono were tried, and the effort brought tsukemono up to what it is today.
As rice became the staple food for the Japanese, chaff soaked vegetable pickles (Nukamiso-zuke), radish pickle (Takuan-zuke) were made and pickle shops prospered in Edo (or Tokyo), Naniwa (or Osaka). On the days of temple festivals local pickle specialties and seasonal tsukemono stalls lined up in front of temples and shrines.

At the time of the Meiji period, waves of westernization hit Japan hard. Life with rice as the staple food of the Japanese diet, however, didn’t change much. Washoku(和食), the traditional dietary cultures of the Japanese, notably for the celebration of the New Year, remains a representative Japanese cuisine and the tsukemono representative side dish. References on the salted vegetables of Korea are "Kimchi culture" by Lee Seong-woo, "A Study on the Traditional Fermented Foods of Korea" by Jang Ji-hyon, "Kimchi and Cultural Anthropology of Kimchi" Ju Young-ha, "Kimchi Culture of Korea" Lee Hyo-ji. Based on the references, Sasaki Michio wrote on Korean kimchi in his "Cultural History of Kimchi".

Summary of the above references is “At first, Korean salted vegetables were mostly in crude cuts, but gradually, regular size cuts in bar shapes, cubes and shreds and stuffing condiments in the cuts on vegetables began to appear. Color as well changed from white as in watery radish kimchi, white cabbage kimchi to kimchi with multi-colored spices in accordance with the Yin-Yang and the Five Elements theory. In particular, after mid 18th century, chili pepper began to be used which means a significant change to kimchi. Mixed with various spices like garlic, ginger, onion, water parsley, fish sauce, condiments, and the minor ingredients of nuts, fruits, fish and shellfish, the old light and simple tasting kimchi has developed into the rich and multi-tasting kimchi of today.”

3. "Kimchi and Cultural Anthropology of Kimchi", Ju Young-ha, Space, 1994
Japan’s tsukemono and Korea’s salted vegetables are two separate things that existed from old times and they respectively developed into their own unique salted vegetable cultures.

In the “Division of Tsukemono and Kimchi’ in his book Cultural History of Kimchi, Sasaki Michio compared the pickled vegetables of the two countries. He divided Japanese tsukemono first based on time: for example, instant pickling, pickling for short preservation, pickling for long term preservation, second on ingredients such as salt pickle, soy sauce pickle, bean paste pickle, sake cake pickle, malt pickle, vinegar pickle, chaff pickle, mustard pickle, and others. In general, tsukemono can be called ‘seasoned pickle’. There is no fermented pickle in Japan, suggesting that taste has its respective cultural background.

Korean salted vegetables are divided into four types: kimchi (cabbage kimchi, watery radish kimchi), geotjeori (fresh kimchi or fresh vegetable salad dressed with garlic and chili powder), Jjanji (salt greens and radish pickle), and Jangajji (soy sauce, red pepper paste, bean paste soaked vegetables). If they are matched against Japanese division, kimchi, geotjeori, jjanji, and kimchi in a broad sense belonging to ‘salt pickles’ and jangajji to ‘seasoned pickles’. In a narrower sense, kimchi can be called a ‘fermented pickle’ since it involves lactic acid fermentation; geotjeori is known as the ‘instant pickle’ ⁶ and jjanji the ‘pickle for long preservation.’

Sasaki wrote “…considering the Japan-Korea relationship in ancient times, one could presumed that Korea introduced Jangajji type (greens and roots soaked in soy sauce, red pepper paste, bean paste), kimchi type, and Jjanji type (salt greens, salted radish) pickles to Japan. Over time, the kimchi type failed to adjust to the warm weather of Japan and disappeared, while the jangajji type grew especially popular during the Edo period and became the origin of Japanese tsukemono. In ancient times, jangajji type and jjanji type pickles were more prevalent in

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⁶ Ebara Foods company developed “fresh cabbage salad with Korean kimchi sesoning”
Korea, but coming into the Joseon period, kimchi type grew rapidly over other type pickles. Pickles of Japan and of Korea in the old days were more or less the same type. Afterward, the two countries branched off into different directions, Japan to ‘seasoned pickles’, Korea ‘fermented pickles’ (kimchi type), with the trend still continuing.

Japanese tsukemono and Korean kimchi; comparison from a cultural perspective

Names of Tsukemono and Ethnicity

Japan’s tsukemono is also called “Kounomono” (‘thing of scent’), “koukou” (‘scent scent’), “oshinko” (‘fresh scent’). According to Koizumi Takeo’s *Japanese Culture and Scent*, “From ancient times, tsukemono and its scent monopolized the Japanese dining table and talks over meals.” “Oshinko” used to refer to “asa-zuke”, pickle of vegetables with original color intact, but over time it became a general term of tsukemono, including takuang tsuke (dried radish pickle). As previously mentioned, in a narrower sense, “kimchi” refers to cabbage kimchi with strong scent, mixed with various seasonings and minor ingredients like red pepper powder, garlic, fish sauce, fish and fish shell and others. On the other hand, kimchi can be a term referring to Korean pickles in general.

Kim Yang-gi in his book *Kimchi and Oshinko* compared the cultures of Japan and Korea. He wrote “I do not consider kimchi and oshinko simple salt greens. They are more than that. They carry the...”

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8. About why tsukemono is called ‘kounomono’. Koizumi introduced what Kondo Hiroshi wrote in his book *Japanese and Japanese foods*: “Since ancient times, Koumonono was limited to radish. The name ‘kounomono’ (‘things of scent’) was given because radish removes bad odor of the mouth. Shiho-no-Suzuri. “Vegetables like radish and eggplant soaked in salt for some time is called kounomono. There was a ‘kounomono game’ enjoyed among Kyoto high ranking officials. The game gives kounomono and asks people to guess the right scent.
characteristics of the people of the two countries. Seeing kimchi and oshinko on the dining table, I am always curious. “How come, using the same ingredients, two countries made such different color and taste. Probing into the question, it is found that it is not the pickle but the culture. Culture is the root of the differences!

He pointed out “To say kimchi is red with pepper, and oshinko is without is a superficial description of the two. The basic difference lies in the method of dealing with the ingredients. Kimchi is attentive to keeping the liveliness of cabbage while oshinko tries to neutralize the liveliness.” “The Japanese like neutralization over marked individuality. In Oshinko whose liveliness is being wringed out, shrinking, I see Japanese” was his observation of Japanese people, which is in line with what Lee O-ryong says in his book "Minimization-oriented Japanese. Kim also said “Distinct individuality is the source of the Korean culture. It presents a great contrast to Japanese culture which favors condensing and ensemble.”

While there are some books written on the cross-cultural comparison of Japan and Korea, "Japanese, Korean, Sword and Brush" by Kim Yong-wun, "Ondol and Tatami" by Kim Yang-gi, "Wasabi and Red Pepper" by O Seon-hwa, "Hashi and Chopsticks" by Im Young-cheol · Ide Risako, "Kimchi and Oshinko" is considered a pioneer book on the subject.

There is a good reference which shows the sales strategies for Japanese tsukemono and Korean kimchi in Japan. It is a catalogue titled “The Three Tastes of Umeboshi. Tsukemono, and Kimchi” included in the magazine "BELLE MAISON" published by Senshukai (‘thousand elegance company’) in 1999. Senshukai is a big mail-order company with headquarters in Osaka. The catalogue introduces a one year period order for tsukemono for 2,750 yen. The order deadline is September 27.

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10_ Kim Yong-woon, "Japanese and Korean or Sword and Brush", 1981
11_ Kim Yang-gi, "Ondol and Tatami", 1990
12_ Oh Sun-hwa et al, "Wasabi and Pepper", 1995
13_ Im Yeong-cheol, "Hashi and Chopstick", 2004
and ends September of the next year 2000. 5 kinds of tsukemono will be
delivered to the orderer every month for one year: in other words 12 times.
The catalogue introduces ‘tsukemono of the season tour’. It says “You
would be completely wrong if you say tsukemono plays second fiddle
on this tour.” “Fragrant food” tsukemono comprises an important part
of Kaiseki foods (extravagant banquet foods of Japan beginning from
the Edo era). This tour will take you to various tsukemono places. With
a little luck, you may experience a dream taste that is hard even for the
people of that region to get. People would be surprised at the taste of
other places they have never had before. This is a food tour of
discovery and touching experience.” Their tour programs are as shown
in the <Table 1-1>. Of 47 prefectures, Tsukemono places are Aichi 6,
Kyoto · Nagano 5, Kagoshima · Shiga 4, Ehime · Yamagata ·
Fukuoka · Gifu · Hiroshima · Tokyo · Niigata 3, Shimane ·
Kanagawa · Osaka 3, Akita · Kumamoto · Tottori · Iwate · Miyagi ·
Okayama · Hyogo · Mie · Hukui 1, totalling 60 kinds of tsukemono in
24 prefectures.

*Table 1-1* Seasonal Tsukemono Tour

<table>
<thead>
<tr>
<th>神武月 (10月)</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. 鹿児島 割干 大根</td>
<td>&lt;radish&gt;</td>
<td></td>
</tr>
<tr>
<td>2. 愛媛 あさづけ</td>
<td>&lt;radish&gt;</td>
<td></td>
</tr>
<tr>
<td>3. 山形 赤かぶ漬</td>
<td>&lt;red turnip&gt;</td>
<td></td>
</tr>
<tr>
<td>4. 島根 山ぶきの佃煮</td>
<td>&lt;mountain butterbur&gt;</td>
<td></td>
</tr>
<tr>
<td>5. 福岡 福たかな</td>
<td>&lt;mustard leaf&gt;</td>
<td></td>
</tr>
<tr>
<td>6. 埼玉 赤かぶ紅千枚</td>
<td>&lt;mountain butterbur&gt;</td>
<td></td>
</tr>
<tr>
<td>7. 広島 手作り白菜漬</td>
<td>&lt;Chinese cabbage&gt;</td>
<td></td>
</tr>
<tr>
<td>8. 京都 京の天惠しば</td>
<td>&lt;siso tsuke&gt;</td>
<td></td>
</tr>
<tr>
<td>9. 島根 しその実漬</td>
<td>&lt;rice bran tsukemono&gt;</td>
<td></td>
</tr>
<tr>
<td>10. 鹿児島 兵六漬</td>
<td>&lt;radish&gt;</td>
<td></td>
</tr>
<tr>
<td>11. 滋賀 千枚漬</td>
<td>&lt;stzuki: turnip&gt;</td>
<td></td>
</tr>
<tr>
<td>12. 長野 野沢菜松前漬</td>
<td>&lt;mozawana&gt;</td>
<td></td>
</tr>
<tr>
<td>13. 神奈川 浅しようが</td>
<td>&lt;ginger&gt;</td>
<td></td>
</tr>
<tr>
<td>14. 福岡 はりはり漬</td>
<td>&lt;dried radish&gt;</td>
<td></td>
</tr>
<tr>
<td>15. 京都 割みすぐき</td>
<td>&lt;tzuki: turnip&gt;</td>
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<tr>
<td>16. 山形</td>
<td>雪菜</td>
<td>&lt;Northeastern region vegetables&gt;</td>
</tr>
<tr>
<td>17. 岐阜</td>
<td>赤かぶら浅漬</td>
<td>&lt;red turnip&gt;</td>
</tr>
<tr>
<td>18. 長野</td>
<td>青干し大根しょうゆ味</td>
<td>&lt;radish&gt;</td>
</tr>
<tr>
<td>19. 広島</td>
<td>広島菜本漬</td>
<td>&lt;Hiroshima vegetable&gt;</td>
</tr>
<tr>
<td>20. 岩手</td>
<td>牛蒡なんばん</td>
<td>&lt;burdock&gt;</td>
</tr>
<tr>
<td>21. 京都</td>
<td>京のなすしば</td>
<td>&lt;siso&gt;</td>
</tr>
<tr>
<td>22. 鳥取</td>
<td>約渋白菜</td>
<td>&lt;Chinese cabbage&gt;</td>
</tr>
<tr>
<td>23. 山形</td>
<td>山菜浸</td>
<td>&lt;green vegetable&gt;</td>
</tr>
<tr>
<td>24. 東京</td>
<td>本生かつお浸魚</td>
<td>&lt;radish&gt;</td>
</tr>
<tr>
<td>25. 福岡</td>
<td>からたかな</td>
<td>&lt;mustard leaf&gt;</td>
</tr>
<tr>
<td>26. 秋田</td>
<td>いぶちがっこ</td>
<td>&lt;radish&gt;</td>
</tr>
<tr>
<td>27. 広島</td>
<td>昆布白菜</td>
<td>&lt;Chinese cabbage&gt;</td>
</tr>
<tr>
<td>28. 愛知</td>
<td>グリーンポーク</td>
<td>&lt;spring cabbage&gt;</td>
</tr>
<tr>
<td>29. 大阪</td>
<td>春日金山寺前浸</td>
<td>&lt;nori&gt;</td>
</tr>
<tr>
<td>30. 滋賀</td>
<td>京味楽浸</td>
<td>&lt;kyomiraku sakura tsuke&gt;</td>
</tr>
<tr>
<td>31. 大阪</td>
<td>春日大名浸うり</td>
<td>&lt;nara tsuke&gt;</td>
</tr>
<tr>
<td>32. 熊本</td>
<td>阿蘇たかな</td>
<td>&lt;takana&gt;</td>
</tr>
<tr>
<td>33. 愛知</td>
<td>サラダ浸漬</td>
<td>&lt;cucumber • eggplant • siso&gt;</td>
</tr>
<tr>
<td>34. 京都</td>
<td>京のしば浸</td>
<td>&lt;rice wine lees&gt;</td>
</tr>
<tr>
<td>35. 鹿児島</td>
<td>本かめつぼ漬</td>
<td>&lt;sliced dried radish&gt;</td>
</tr>
<tr>
<td>36. 愛知</td>
<td>猿上漬物守口浸</td>
<td>&lt;eggplant&gt;</td>
</tr>
<tr>
<td>37. 滋賀</td>
<td>茄子浅漬</td>
<td>&lt;radish&gt;</td>
</tr>
<tr>
<td>38. 東京</td>
<td>青前大根だいか漬</td>
<td>&lt;takana tsuke&gt;</td>
</tr>
<tr>
<td>39. 鹿児島</td>
<td>しらす入り高菜漬</td>
<td>&lt;turnip&gt;</td>
</tr>
<tr>
<td>40. 岐阜</td>
<td>くいしんぼう</td>
<td>&lt;green cucumber&gt;</td>
</tr>
<tr>
<td>41. 愛知</td>
<td>芹うり醤油漬</td>
<td>&lt;small radish&gt;</td>
</tr>
<tr>
<td>42. 新潟</td>
<td>紅町子</td>
<td>&lt;radish • eggplant • cucumber&gt;</td>
</tr>
<tr>
<td>43. 長野</td>
<td>本醸造みそ漬漬づくり</td>
<td>&lt;nara tsuke (奈良漬け)&gt;</td>
</tr>
<tr>
<td>44. 愛知</td>
<td>匠伝吟づくり</td>
<td>&lt;scallion&gt;</td>
</tr>
<tr>
<td>45. 鳥取</td>
<td>鳥取黒髪どっきょ</td>
<td>&lt;watermelon&gt;</td>
</tr>
<tr>
<td>46. 京都</td>
<td>燕丸漬</td>
<td>&lt;eggplant キンチャクナス&gt;</td>
</tr>
<tr>
<td>47. 新潟</td>
<td>十全なす</td>
<td>&lt;kizami mimana tsuke&gt;</td>
</tr>
<tr>
<td>48. 滋賀</td>
<td>刻み壬生漬</td>
<td>&lt;burdock [山芋] &gt;</td>
</tr>
<tr>
<td>49. 長野</td>
<td>四季一番</td>
<td>&lt;burdock [山芋] &gt;</td>
</tr>
<tr>
<td>50. 愛知</td>
<td>本酒大根</td>
<td>&lt;radish&gt;</td>
</tr>
</tbody>
</table>
Geographical names are often the origin of other names; for example, vegetables names of Hiroshimana, Mibuna and Nozawana, tsukemono names of Nara-zuke, Moriguchi-zuke and Matsumae-zuke, and the brand names Kyoto, Aso, Kinzanzi, Echizen, Sendai, and Tottori. The key words in the tsukemono advertisements are “traveler’s journal”, “various places of Japan”, “home”, and “tasty trip”. Respective tsukemono reflects the natural characteristics of their place. They have been developed with the wisdom of everyday living for a long time, using various ingredients, thus, varying the tastes. In the past, tsukemonos were available only within certain boundaries of a region. Development of transportation, however, increased tourism, and many local products came to be known nationwide. Now mail order is a core tsukemono sales strategy. Without going on a tsukemono tour, anyone can enjoy local tsukemono through package delivery service. “Ekiben” (‘railway station box lunch’) and “ozouni” (rice cake soup prepared with vegetables, mushroom, beef. a new year celebration food) are other famous local foods. Respective places nationwide make their own unique ones. There is a popular TV program titled “Kenmin’s Secret Show”. The program introduces local foods and related stories and history, most of them having begun under Bakuhu (Japan’s feudal government, shogunate) during the Edo period. Han (藩, a territory of feudal lord) was politically and culturally independent.¹⁵
Advertisement of kimchi in the mail order catalogue says “from the basic cabbage kimchi, cucumber and radish kimchi to a vegetable side dish type, salad type and new original kimchi and other various side dishes of varied taste and ingredients, a selection of kimchi and Korean side dishes, 5 in all, will be sent to you every month. Enjoy the taste of home, made of top quality ingredients and spices.”

| 10月 | <table border="1" style="text-align: left;"
| 10月ビリビリとした旨さが、食欲の秋にマッチ。 | kimchi with tang taste to it, best for autumn |
| 1. かぶ大根キムチ | <turnip kimchi > |
| 2. 角切りきゅうりキムチ | <cubed cucumber kimchi > |
| 3. 特選白菜キムチ | <special cabbage kimchi> |
| 4. タラビリ漬 | <spicy braised cod> |
| 5. りんご辛いわし甘煮 | <spicy braised sardine> |
| 11月 | 韓国の人気家庭料理をじっくり堪能。 |
| 1. カクテキキムチ | <cubed radish kimchi> |
| 2. きゅうりちはさみ漬け | <stuffed cucumber> |
| 3. 白菜キムチ | <cabbage kimchi> |
| 4. チャンジャ大根 | <radish mixed with fish sauce> |
| 5. 岩のり個巻韓国風 | <braved Korean rock laver> |
| 12月 | 新の食材を生かした新鮮メニューがずらり。 |
| 1. みぶなキムチ | <mibuna kimchi> |
| 2. かき入り白菜キムチ | <cabbage kimchi> |
| 3. 甘酢大根キムチ | <vinegar radish kimchi > |
| 4. いかキムチ | <squid kimchi> |
| 5. れんこん明太子 | <lotus root and salted Pollack roe> |
| 1月 | 新春キムチパーティーなんていかが？ |
| 1. あさり白菜キムチ | <bland cabbage kimchi> |
| 2. 広島葉キムチ | <hiroshima kimchi> |
| 3. あられけきゅうりキムチ | <cucumber kimchi> |
| 4. 鶏刺し醤油キムチ | <braised chicken lotus root > |
| 5. ありめびり辛煮 | <spicy braised squid shreds> |
| 2月 | 寒い日にホッコリキムチ鍋がいちばん。 |
| 1. 小松菜キムチ | <komatzna kimchi > |
| 2. 切り干し大根キムチ | <sliced dried radish kimchi > |

| 23. 明太こぼう | Pollack and burdock |
| 24. ハトウ辛子, 唐辛子の葉 | pepper leaves |
| 25. にんにくの芽 | garlic stem |

3月 さっぱり野菜と海の幸のご馳走を。
| 26. ししむしギムチ | fresh salad kimchi |
| 27. 角切りきゅうりキムチ＝2 | cubed cucumber kimchi |
| 28. 太大根キムチ | whole radish kimchi |
| 29. ねぎキムチ | pork kimchi |
| 30. びし辛いわし甘煮 | spicy braised sardine |

4月 春は激辛キムチでパワー全開。
| 31. 高菜キムチ | energetic spring with spicy kimchi |
| 32. カクテキキムチ＝6 | cubed radish kimchi |
| 33. 本場激辛白菜キムチ | original spicy kimchi |
| 34. いかと大根のチム | seasoned radish squid |
| 35. 岩のり佃煮韓国風＝10 | brasieded Korean rock laver |

5月 ピリリと季節風味わう旬の組み合わせ。
| 36. 菜種キムチ | canola kimchi |
| 37. きゅうりはさみ漬 | stuffed cucumber |
| 38. かぶ大根キムチ＝1 | turnip kimchi |
| 39. いか大根キムチ | seasoned radish squid |
| 40. はまぐりピリ辛煮 | spicy braised clam |

6月 初夏らしく、さっぱり風味を食卓へ。
| 41. 浅漬けきゅうりキムチ＝18 | asa tsuke cucumber kimchi |
| 42. たこきゅうりキムチ | octopus cucumber kimchi |
| 43. 和風 白菜キムチ | japanese style cabbage kimchi |
| 44. 甘酢大根キムチ＝13 | vinegar radish kimchi |
| 45. 牛肉しぐれ煮キムチ風 | braized beef with kimchi |

7月 キムチパワーで夏バテを吹っ飛ばそう！
| 46. にらキムチ | chive kimchi |
| 47. 切り干し大根キムチ＝22 | sliced dried radish kimchi |
| 48. 水キムチ | water kimchi |
| 49. サラダキムチ | salad kimchi |
| 50. するめピリ辛漬＝20 | seasoned squid shreds |

8月 暑い日は、激辛キムチとビールで乾杯。
| 51. 浅漬けきゅうりキムチ＝18,41 | cucumber kimchi |
| 52. 本場激辛 白菜キムチ＝33 | cabbage kimchi |
In the above selections, asa-zuke cucumber kimchi appears 3 times, cubed cucumber kimchi, cubed radish kimchi, Korean style braised stone laver, turnip kimchi, dried radish, chili-flavored seasoned shredded squid, very hot original kimchi, fish sauce-flavored radish, whole radish kimchi 2 times, for a total of 50 varieties. The catalogue has 6 kinds of cabbage kimchi; special selection kimchi, regular kimchi, oyster kimchi, mild kimchi, original hot taste kimchi, and Japan type kimchi. In Japan, it still doesn’t seem to be an easy job to arrange Korean kimchi and side dish sets.

The eight provinces of Korea must have their own kimchi native to the region. In Japan where not much about kimchi is known other than cabbage, radish, and cucumber kimchi, various kinds of kimchi seem to be the mail order company’s sales point.

The catalogue has explanations on kimchi like ‘seasonings decide taste’, ‘why Korean original kimchi is tasty?’, ‘kimchi is a natural food good for health’, ‘kimchi is alive!’, ‘Eat kimchi with okonomi(favourite)’, ‘inflated pack stands for tasty fermentation done’. This is the knowledge of kimchi that the Japanese were unaware of thus far.
**Kimchi recipe, varieties**

Japan also has tsukemono-based side dishes; however, compared to kimchi, they are limited. Tsukemono is sometimes served as ochauke (cookie or tsukemono served with tea), but mostly it is no more than a small accompaniment to a main meal. Kimchi makes a sufficient side dish. Shigeno Yuichi (茂野悠一) in his "World's Tsukemono" wrote "Kimchi is a masterpiece of salted vegetables. It is different from the vegetable pickles of other countries. Nutritionally balanced, just with rice, it makes a sufficient meal. Morieda Takashi who wrote "The food is in Korea" with me also said "kimchi and soup complete a meal. In terms of ingredients as well, kimchi is more than a simple vegetable pickle. It is an ever-ready side dish made of all sorts of dainties." "This complete preserved food in a way makes a scanty meal for Koreans. As two or three kinds of kimchi is enough to finish a bowl of rice, it may cause a monotonous dietary life lacking variety" was Shigeno's worry, and maybe excessive at that. Kimchi alone makes a sufficient side dish, it can change into numerous varieties- kimchi soup, kimchi casserole (boil), kimchi pancake (bake), fried kimchi (fry), kimchi fried rice (fried with rice) and others. Han Bok-ryo in her book "A Must 100 Kinds of Kimchi" introduced 24 kinds of cuisine using kimchi. It is believed, had the book have the introductions to kimchi recipes too, it would have been more effective in disseminating kimchi culture. The fore-mentioned catalogue also has simple kimchi based recipes, ‘cucumber kimchi Italian salad,” “kimchi dumpling’. In Japan, kimchi fried rice under the name ‘buta kimchi’ (‘pork kimchi’), ‘natto kimchi’ (natto mixed with kimchi) are on the menu of pubs. Kimchi jjigae (kimchi stew) is being sold at super markets in the retort pack. Such wide use for a variety of foods is the uniqueness of kimchi.

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16_ Shigeno Yuichi, "World’s Tsukemono", 1983
17_ Asakura Toshio "Foods are in Korea", 1986
18_ Han Bok-ryo in her book "A Must 100 Kinds of Kimchii", 1999
In recent years, health-conscious low-salt diets hit across Japan, and the salt content in tsukemono was significantly reduced, making tsukemono entirely brand new. This ‘new tsukemono’ was introduced in ‘New Tsukemono’\(^1\) by Maeda Yasuhiro. He wrote of Japanese tsukemono as follows: “Since the 30th year of Showa (1965), the four technologies of reducing salt from high salt pickles, plastic packing, heat sterilization, and refrigeration made diametrical changes to the high salt ‘preservation foods’ to low-salt ‘favorite food’ with little preservation capacity.”

Such change altered tsukemono culture at home. In my childhood, I lived in Tokyo. Until the 1960s, my grandmother and mother made cabbage tsukemono in taru (wooden barrel) in winter or mixed rice bran paste by hand at home. But these days, only a very small number of households keep rice bran paste while most homes buy tsukemono. When people make tsukemono at home, they use ready-made tsukemono ingredients. For example, ‘asa’, ‘rice bran’, even ‘kimchi tsukemono seasoning’ are available in the market.\(^2\) In the past, each household made rice bran tsukemono at home and it used to be meaning ‘the taste of mother’. But ‘the taste of mother’ has become an advertisement slogan of the food service industry and products selling the nostalgia of the taste of mother’s cooking.

In Korea, kimjang is no longer a grand family event in winter for city apartment dwellers. But the community culture where relatives and neighbors gather and make winter kimchi together still remains. In the past, kimchi was kept in jars buried in the ground. The practice became impossible living in city apartments. The kimchi refrigerator was developed instead and became a huge hit, suggesting kimchi is still an important preserved food for Koreans.

Han Kyeong-gu, in his article ‘Some foods are happy to think: kimchi and Korean National characteristics’\(^3\), wrote that the status of kimchi

\(^2\) “Kimchi stuffing” has been developed by Momoya (桃原) in 1975
changed from ‘smelly but a must food for Koreans’ to ‘bad odor but
good- for -health food’, and most recently to ‘tasty, good for health and
environment-friendly.’”

Applying a similar formula to estimate tsukemono practicality would be
‘preserved food indispensable accompaniment for rice’ to ‘favorite food
to accompany rice’, from ‘the taste of home’ to ‘standardized taste
being sold at shops’, then to ‘the taste of home being sold at shops’.

Kimchi in Japan

Kimchi studies in Japan
Kimchi books published in Japan are Kimchi Culture and Natural
Environment in 1987, Grand Exploration to Violently Hot Kimchi in 1988, both by Ienaga Yasumitsu · Rho Woo-hyeong. The
publications are believed influenced by the 1988 Seoul Olympic Games.
It was late 1990s Korea kimchi books began to be translated into
based on Lee O-Young · Lee Gyu-tae · Lee Man-jo’s Kimchi, the taste
of 1000 years, in 2000 edited by Kim Kyong-mi, the first chief researcher of the Kimchi Museum, Kimchi, the Life of
Koreans in 2001 by Choi Hong-sik, author of The Power of
Kimchi: Scientific Analysis on Kimchi, Kimchi Encyclopedia: 100
Traditional Korean Kimchi in 2005 by Han Bok-ryeo, former
chairman of the Institute of Korean Royal Cuisine. The publication of
the books are believed in response to the 2nd hot taste boom, kimchi as
a health food and the globalization of kimchi culture.

22_ No. Woo-hyong, et al. Kimchi Culture & Climate
23_ Lee Eo-ryong, et al, Extremely Hot Version Kimchi Exploration
25_ Kimchi Diet, edited by Kim Kyong-mi, 2000
26_ Choi Hong-sik, Kimchi, the life of the Koreans
27_ Choi Hong-sik, The Power of Kimchi, Kimchi from the perspective of science, 2001
28_ Han Bok-ryeo, Kimchi Encyclopeda: Traditional Korean Kimchi, 2005
29_ In 1995, Park Kun-yong wrote Nutritional analysis on Kimchi, Kimchi’s anti-mutation, anti-
cancer effects. In 2002 Jeong Dae-seong published Beautiful Skin · Diet · Healthy Kimchi
In 2009, the earlier mentioned Sasaki Michio’s “Cultural History of Kimchi : Kimchi of the Korean Peninsula · Kimchi in Japan” was published. In Chapter 3 “Japanese Kimchi”, he delineates the history of kimchi in Japan in respective periods, from Meiji to 1945, 1945 to 1960, 1961 to 1980, 1981 to present and analyzed kimchi’s current boom in popularity.

My personal history of kimchi can be summarized; during the Meiji period ‘tasty but smelly, hard to eat’ as written in 「Kimcho」, during the Japanese colonization of Korea, enjoyed mostly among Japanese immigrants to Korea, around the period of the Korean War known as ‘Joseon tsukemono’, in 1975 due to the television ads ‘Kimuchi-no-moto’, kimchi began to be called Kimuchi, since late 1980s ‘Korean Kimchi’.

Besides, my research on kimchi is introduced in the 「Kimchi Tour : Let’s make, eat and know」 I wrote for “Hobby at Leisure” program on the NHK education channel which was broadcast from December 2003 to January 2004. Another is 「Kimchi spreading over the territorial boundary」 where I introduced kimchi in Japan, kimchi in Korea, kimchi in the world and my studies on “Kimchi, Korean traditional culture · kimchi as cultural product”, ‘kimchi nationalism’ and ‘kimchi globalization’.

**Kimchi and Kimuchi**

Kimchi was a topic of hot discussion from 1999 to 2000. In March 1996, at the Codex (CAC: Codex Alimentarius Commission) held in Tokyo, Korea (the Ministry of Agriculture and Forestry) proposed ‘draft international standard’ for kimchi, and Korea and Japan agreed to work on a communique, however about Korean side’s opinion ‘Japanese

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31_ Izuka Eitaro, “Making Tsukemono”, 1887.
34_ Japan Ethnology Museum, “Kimchi spreading over territorial boundary”, 2009.
Kimuchi is not kimchi’, most of Japanese newspapers reported as ‘Japan-Korea Kimchi War’ in summer 1999.

Media headlines were wild “Korea-Japan Kimchi disputes on the Draft of International Standard (June 276, 1999)”, “Hot Kimchi Disputes, International or Traditional?” (July 19, 1999), “Korea-Japan chili pepper hot discussions” (August 13, 1999), “Japan-Korea discussions over the definition of kimchi” (October 16, 2000). But most of the articles carry both Japan and Korea’s opinions; for example, “Kimchi coming to Japan is no different from the original Korean kimchi.” (Tokyo newspaper), the article “Various recipes, all good” (Asahi Newspaper) by Cheong Dae-seong is together with “In Japan, since the 30th year of Showa, standardization of taste accelerated. A unique Japanese food culture created by the climate and soil of Japan disappeared, and the taste of fermented food, the essence of tsukemono, has been lost. The heated discussion over the International standardization of kimchi is an alarm by Korea to Japan” (Osaka Daily) by food culture specialist Nagayama Hisao. I also wrote in the article “To Read Regions : Discussions over a country’s food going international” that “The current kimchi discussions will be a touchstone to mature Japan-Korea relationship.”

How much kimchi does Japan produce? Yomiuri carried an article on January 1, 2002 “Kimchi production No.1 in Japan. Strange things happened to tsukemono front, rice bran tsukemono dropped.” The article wrote “According to the Food Supply and Demand Research Center, Kimchi production 85,000 tons in 1991; tons increased to 250,000 tons in 1999; and 320,000 tons in 2000. On the other hand, rice tsukemono production, 210,000 tons in 1999 decreased to 96,000 tons in 2000, finely chopped vegetable tsukemono to 108,000 tons and 109,000, more or less steady state.” Though the headline is wrong as soy sauce tsukemono production of 53,000 tons in 2000 is not included, it is certain kimchi production has increased. According to the Food Supply and Demand Center statistics, kimchi production recorded 380,000 in 2002; and decreased to 238,000 in 2008. Rice bran
tsukemono and chopped vegetable tsukemono productions as well dropped to 85,000 and 86,000 tons in 2008, showing continued decrease. While tsukemono production decreases, soy sauce tsukemono production was up to 420,000 tons in 2008 followed by kimchi production.

In 1991, imported kimchi from Korea about 4,000 tons in 1991 increased to 10,000 tons in 1997; 20,00 tons in 1999; and 30,000 tons in 2002. Kimchi imported from China was found to have parasites; kimchi importation from Korea fluctuated according to Korea-Japan relations; however. kimchi consumption of made-in Japan kimchi and made- in- Korea kimchi combined is a considerable amount, indicating kimchi has become an indispensable food item in Japan.³⁶

Korea Agro-Fisheries & Food Trade Corporation placed an advertisement titled “Korea Kimchi Shinbun” (December 26, 2005) in Yomiuri Shinbun and “Varied original Korean kimchi” in Asahi Shinbun (2008. 5. 20). The corporation opened a Japanese site of Korean kimchi and the Korea Tourism Organization as well carries information on kimchi, raising awareness of Korean kimchi in Japan.

³⁶ Lee Geum-dong & Shiratate YoshiharuˈKimchi importation increase and the response of Japanese vegetable tsukemono) (РИуу. 流通, 18, 2006) divides kimchi being sold in Japan into A-type=asa-zuke type, B-type=original tsukemono type, C-type=lactic acid fermented kimchi with seasonings suited to Japanese consumers, D-type=original Korean kimchi, E-type=Korean style kimchi made in China for Japanese consumers. The difference between A-type and B-type is decreasing and original tsukemono type has less water than asa-zuke type with Korean chili pepper and fish sauce. Of tsukemono producers A-type kimchi producers are 80%, B-type 20%. In 2003 made-in Japan kimchi stood 92% of the total domestic kimchi consumption. At first, D-type kimchi was imported from Korea but in the 1990s, due to Japanese importers moved in to Korean market, mostly changed to C-type. As for kimchi trading, refer to ˈKimchi trade and the structural changes in vegetable tsukemono industry) (Sagadai-noui佐賀大農業, 91,2006, pp 63–71.)
Kimchi in Japan

Beside Korea Town and Korean food marts run by Korean-Japanese, kimchi is available at the Korean food corners in department stores and general supermarkets.

I would like to introduce the case of a supermarket near my house. The supermarket is near a station and runs from 8 am to 11 pm all year round. Kimchi is displayed at the tsukemono corner on the first floor with tsukemono, side by side.

They sell 19 kinds of kimchi as shown in <Table 2>, both made in Japan and made in Korea. Japan made kimchi uses Japan cabbages, mostly in small packages, produced by famous grilled meat or pork brands such as famous Gyukaku, Jojo-en, Yoshinoya. Best flavor period is relatively short: for example, kimchi purchased on September 29 is good until mid October.
<table>
<thead>
<tr>
<th>Product</th>
<th>Producer</th>
<th>Quantity</th>
<th>Expiration Date</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ブチごくらみ</td>
<td>東海漬物(豊橋市)</td>
<td>100g(2 pack)</td>
<td>13.10.21</td>
<td>198円</td>
</tr>
<tr>
<td>国産白菜使用, 最高級アミエビ, ヨクジョ塩辛醸造液配合, コクと旨さのコクウマ, 熟すま辛キムチ, かつお魚膏・イカごろ配存</td>
<td>東海漬物(豊橋市)</td>
<td>320g</td>
<td>13.10.09</td>
<td>358円</td>
</tr>
<tr>
<td>国産白菜100%使用, 最高級アミエビ, ヨクジョ塩辛醸造液配合, コクと旨さのコクウマ熟すま辛キムチ, かつお魚膏・イカごろ配存</td>
<td>備後漬物(福山市)</td>
<td>100g(2 pack)</td>
<td>13.10.01</td>
<td>178円</td>
</tr>
<tr>
<td>国産白菜, アミエビ入り</td>
<td>備後漬物(福山市)</td>
<td>450g</td>
<td>13.10.08</td>
<td>358円</td>
</tr>
<tr>
<td>国産白菜, たっぷりアミエビ入り</td>
<td>備後漬物(福山市)</td>
<td>200g</td>
<td>13.10.14</td>
<td>198円</td>
</tr>
<tr>
<td>牛角 甘辛キムチ</td>
<td>フードレーベル(台東区)</td>
<td>100g(2 pack)</td>
<td>13.10.14</td>
<td>198円</td>
</tr>
<tr>
<td>国産牛角オリジナルレシピで作りました</td>
<td>フードレーベル(台東区)</td>
<td>400g</td>
<td>13.10.28</td>
<td>398円</td>
</tr>
<tr>
<td>牛角 べったらキムチ</td>
<td>フードレーベル(台東区)</td>
<td>250g</td>
<td>13.10.13</td>
<td>288円</td>
</tr>
<tr>
<td>食べ応えのある大きさの甘辛カクテキ</td>
<td>マルゼンフーズ(堺市)</td>
<td>150g</td>
<td>13.10.07</td>
<td>198円</td>
</tr>
<tr>
<td>和風マイルドキムチ</td>
<td>福田屋(大阪市)</td>
<td>300g</td>
<td>13.10.02</td>
<td>238円</td>
</tr>
<tr>
<td>辛さをおさえた食べやすい味</td>
<td>天政(大阪市)</td>
<td>200g</td>
<td>13.10.09</td>
<td>278円</td>
</tr>
<tr>
<td>ホラエキス入り</td>
<td>秋本食品株式会社(滋賀市)</td>
<td>200g</td>
<td>13.09.30</td>
<td>328円</td>
</tr>
</tbody>
</table>

3種の乳酸菌使用, 生きている乳酸菌による美味しさ 一枚一枚手塗りした重ねキムチ
| 13 | おいしいキムチ | エバラCJ（横浜市） | 300g | 13.10.19 | 358円 |
| 乳酸菌が活いている ハマグリの旨味でおいしさUP。イワシ・コンブ・エビ・ハマグリの旨味 |
| 原産国名 韓国 |
| 14 | こだわりススム、 甘っ辛うまっ!!なキムチ | ピックルスコーポレーション（pickle corporation（所沢市）） | 200g | 13.10.07 | 238円 |
| 国産白菜使用 |
| 15 | 叙々苑キムチ | ピックルスコーポレーション（pickle corporation（所沢市）） | 180g | 13.10.10 | 398円 |
| 良質の味 おいしさが見のサービス |
| 16 | 大阪鶴橋 黄さんの手造りキムチ、通の味 | 高麗（大阪市生野区） | 350g | 13.10.05 | 298円 |
| くせになる味、国産白菜使用 |
| 17 | 大阪鶴橋 黄さんの手造りキムチ、通の味 PREMIUMプレミアム | 高麗（大阪市生野区） | 230g | 13.10.03 | 298円 |
| 本格熟成発酵、本漬け、国産白菜使用、鶴と昆布の旨味 |
| に、桃、りんご、ハチミツ、の上品な甘さを加えた「特製本漬け」、守り継がれる伝承の味 |
| 18 | イチオシキムチ | 美山（君津市） | 220g | 13.10.10 | 198円 |
| 植物性乳酸菌たっぷり（当社比百倍）、さわやか発酵、キムチはキムチの乳酸菌、 |
| 国産白菜使用、20g増量中 |
| 19 | 毎日キレイキムチ | 美山（君津市） | 280g | 13.10.03 | 288円 |
| 国産白菜使用、1パック当たり乳酸菌1億個以上、美山オリジナル乳酸菌添加、 |
| しみたけ、スルメイカWエキスの旨味 |
Let’s review ‘the made-in Japan kimchi’ on the homepage of the N company who have been making kimchi in Japan since Showa late 30s. “How could the so called ‘made-in-Japan’ kimchi’, which is different from the original Korean kimchi, permeate into Japanese food life and became popular among the Japanese? The answer to this question lies in their differences in taste and style.” In detail, “As most Japanese do not like the sour taste of the fermented kimchi, a slightly fermented stage kimchi is put on the market with a short “recommended best flavor period’ mentioned on the package, for customers to enjoy kimchi before it gets too sour.” “Japanese do not like strong fish smells, the use of fish sauce is kept to the minimum.” “To appeal to the Japanese liking, natural flavors or amino acid additives are used.”

N company’s internet shopping products are as shown in <Table 3>. Mail order package is bigger than market selling kimchi and with longer best flavor period. But beside business use, the biggest package is 1kg with a maximum 30 days expiration date.

Kimchi popularity in Japan is also found in the development of various kimchi-based varieties. An article titled “kimchi sales increase at convenience stores” in the June 13, 2000 issue of Tokyo ★ Week, a city information magazine that had been published between 1997 and 2010 by Kodansha is a good example. It wrote “Korean food boom made kimchi a hot item. Hot kimchi varieties continue to be developed, sales in summer season grows faster! Convenience stores, the people refrigerator and mass provision warehouse are full of kimchi. Do not miss kimchi this summer!” Kimchi-based varieties are introduced in the article such as snacks, snacks to be served with alcoholic beverages, ramen, rice soup, soup, rice, yakisoba, and various types of kimchi. It shows kimchi is not only a side dish but it is also used as a flavor or seasoning.37

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37 Most Japanese Tsukemono are “seasoned Tsukemono” type.
The above shows Japanese version kimchi and the similar phenomenon is also taking place in the course of accommodation of kimchi in other countries. In this regard, acculturation would be a valuable topic for further studies on kimchi.

**Kimchi and regional development**

In Japan, there is ‘Kakamigahara kimchi’. Korea Japan Friendship Association was established in Kakamigahara City in Gifu Prefecture in 1999. It held a kimchi making demonstration. The city’s chamber of commerce was looking for a new local specialty product, and they became interested in kimchi. ‘Kakamigahara kimchi’ is the result of the joint efforts of Japan-Korea Friendship Association, Japanese Chamber of Commerce, and JA as one of the Active City Projects. Kimchi began being sold to restaurants everywhere in the downtown area. Thanks to the famous television drama ‘Winter Sonata’, Hallyu (Korea trend) was

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38 My presentation “Sakhalin Kimchi” at international symposium in September 26, 2013, organized by the advisory committee for Intangible Cultural Heritages, UNESCO.
peaking and for Kakamigahara City who’s sister city of Chuncheon which is related to the drama, kimchi contributed to regional growth. Kakamigahara kimchi has been recognized from ‘Japan’s Best City Research Center’. Kakamigahara City garlic, Chuncheon city specialty pine nut are must ingredients for the kimchi and cabbage, radish, cucumber, yacon, bamboo shoot, artichoke, saesonggi mushroom, radish greens and perilla leaf are used. Image song ‘The mind of kimchi’ was made in 2007. Kimchi was introduced in the 2nd “B1 Grand Prize (Brand-1 restaurants contest), kimchi was chosen as ‘regional resource & nationwide expansion project, and centering on the Japanese Chamber of Commerce, four new products ‘seafood cabbage kimchi’, ‘special ★ type kimchi’, ‘Kakamigahara whole cabbage kimchi, and Onkan-Kakamigahara kimchi body soup’ were developed. In addition, image character ‘kimchippi-’ was developed and in 2011 ‘my beloved kimchi’, a documentary of Kakamigahara kimchi, was broadcast as NHK Gifu Broadcasting’s 70th anniversary drama. At the Calbee factory downtown, Kagamigahara kimchi tasting potato chip is being manufactured. The case of Japanese kimchi, production of image song, image character, and BI grand prize shows a standard practice to promote regional specialties.

Conclusion

Cultural resource is the embodiment of various elements providing a clue to understanding a society and culture of an era. This article compared Korean kimchi and Japanese tsukemono, finding that Japanese kimchi reveals Japan’s nationality and is a telling index of accommodation of Korean culture in Japanese society while also reviewing Korean culture’s Japanization and the cultural characteristics of Japan and Korea. I believe this article fully proves that kimchi is a cultural asset.
Lastly, I would like to make a comment on kimchi studies; in particular, kimchi cultural studies.

We often hear the term ‘food culture’, though it has not been long since food culture research began. Ishige Naomichi, a leader in the studies on Japanese food culture, said at the ‘food culture symposium’ held in 2009 “Up until the 1980s, the term ‘food culture’ was not known.” In the presentation under the title “Food symposium and me”, reflecting on ‘food symposium’ held by the Ajinomoto Food Culture Center and the history of food culture research that existed prior to ‘food culture forum’, he reported on the Ajinomoto company’s contribution to food
culture research in Japan. Contrary to private-company led food culture studies in Japan, food culture studies are led by the government in Korea. Food culture studies in Japan, however, can be a valuable reference to Korea.

The diagram shows Ishige’s idea about various fields of studies that fall into the category of food culture study (diagram). As shown in the diagram, ‘food’ is not only for natural science study. It is a comprehensive subject that also encompasses the humanities and social science studies. In this regard, ‘Kimchiology’ can be established as a full- fledged independent study. Especially for the two countries of Japan and Korea who have similar food cultures sharing ‘rice, soup, pickles’ as basic food and many people eat kimchi, joint studies or exchange of studies on food culture and kimchi will benefit both countries.

39_ Ishige Naomichi, in his book 'From the Perspective of Food Culture Studies', vol. 2 explored a new research field ‘food culture studies’. Aiming at introducing cultural aspect to various studies, he had discussions with researchers from various fields of studies about the possibility of “food culture studies.”

40_ I am preparing a special exhibition on ‘food’ in Autumn 2015. The exhibition is going to be a joint project with the National Folk Museum of Korea.
History of the Chinese pickled vegetable, description of cultural image

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Preface

In this article, ‘Chinese pickles’ refers to salted food, of two kinds, salt tasting and vinegar tasting. Yancai 腌菜 (salted vegetables) is non-fermented food, and paochai 泡菜 (vegetables soaked in salt) is fermented food. At first, hunted and domesticated animals, and fish were used for salted food in China. The difference between ‘yan’ (salted) and ‘zi’ (soaked) is whether it is fermented or not. Originally, ‘yan’ is to prevent fermentation, however, in the course of ‘yan’, fermentation occurred in meats from a working combination of the amount of salt, the temperature, humidity, and whether the seal was tight or not. The end result was the beginning of ‘zi’, or sour taste. Yan and zi, the two most typical food preservation methods, share much similarity in that both use salt. ‘Yan’ is saltier as it uses more salt; ‘zi’ is the more sour of the two tastes. Over a thousand years of history, yancai diversified to the point of drawing mention in the 《Book of Songs》. It became a basic Chinese food, and in due course, various yancai with regional characteristics continue even today respective of their regions. Varied ingredients, varied preservation methods, and various types of yancai with all different tastes proliferated. By the Han Dynasty,
Chinese people came to prefer vegetables over meat. This phenomenon grew more distinctive along with agriculture and an increasing farm population.

『Qiminyaoshu 齊民要術』, the oldest comprehensive agriculture methods book in China published in the 6th century, introduces the history of yancai in relative detail. From the 6th to the late 19th century, about 1,400 years, yancai became typical of the multi-ingredient food found on the ordinary Chinese dining, and from which many yancai-based varieties and recipes developed. Old literature on food thoughtfully articulates the long history of yancai and the characteristics of Chinese people. While yancai is an indispensable side dish for the humble class as well as for the upper class, favorites can be found respective of social class. In particular, with the development of cities, various yancais satisfying independent consumer classes and their demands appeared, and yancai became an element of social culture. Pickled side dish shops sprouted up as early as the Han period and with the urbanization during the Sung and Ming periods, they became more popular. It was common for people to buy vegetables soaked in soy sauce, fermented food, and salt greens at side dish shops. At vegetable harvest season, people made yancai at home. This homestyle tradition withered from urbanization: consumption level increases on the one hand, modern characteristics infiltrating the yancai culture on the other.

The Origin of Yancai

Pickles and Korean kimchi are different. Kimchi is a proper noun and historical product of Korea while pickles refers to salted vegetables with salty and sour tastes made with bittern and vinegar. Yancai and Paochai are the two most typical Chinese pickles, the former being non-fermented. The Chinese character yan腌 means ‘salt 盐’, and salt is used in Yancai. In this article, Chinese pickles refer to both yancai and paocai.
Six thousand years ago, around the late Neolithic period, salt was precious and hard to get, particularly in regions far from the sea. Salt was needed to keep meat from going bad, and it was here that Yancai found its beginnings. At first, hunted or domesticated animal meat as well as fish were the target ingredients for pickling. Meat was an important food in the old days and people wanted to keep meat edible and as fresh as possible for the longest period possible. As mentioned, the difference between Yan and Zi is that only Zi is fermented. Originally, ‘yan’ is anti-fermentation process, however, in the course of salt pickling or ‘yan’, fermentation occurs in meats due to chemical activities among other processes - degree or speed of fermentation is subject to the volume of salt, the temperature, humidity, whether tightly sealed or not - which was how ‘Zi’ or sour was added to the salty taste of Yan. Yan and Zi sometimes were used to mean the same thing. Yan and Zi, the two representative food preservation methods share much similarity, both use salt, and the distinctive difference in the food is that ‘yan’ is saltier as it uses more salt, ‘zi’ tastes more sour. Zi soaks up ingredients in water, thus using less salt, and that is how it has a more sour taste to it. Zi uses a lot of water to keep out air, while a stone is put on top of the ingredients to keep them from floating to the surface.

『Cangxiepian 倉頡篇』 of 『Yupian 玉篇』 wrote of “salt greens, salted meat, salted fish”. The Chinese character 餓 is a combined character of 月 meaning ‘meat’ and 魚 ‘fish’, suggesting the first ingredients of Chinese pickles were meat and fish. 『Shouwenjiezi 説文解字』 wrote of “vegetables soaked in vinegar”, in the phrase the letter 汲 suggest that vinegar was used prior to the Han period. 『Zhouli 周禮』 (a Confucian classic. It explains Confucian thoughts and doctrines) says “chives, radish greens, curled mallow, water parsley, bamboo shoot, and bamboo are the ingredients for vinegar curing. They are thinly sliced and soaked in vinegar and soy sauce.” 『Shaoyi 少儀』 mentions “vegetables and meat are pickled together” and Zu’. 『Shuowen 説文』 has a record saying ‘Zi 陵, soaking in water.” 段玉裁 explained ‘ou 汲’ means ‘soaking in water’. 『Liji 禮記・Ruxing 儒行』 says “people enjoy pickles soaked in
water.” In 『Leipian 麻篇』 the expression “soaked” is found. According to the old literature, it can be said that it was since the Chu (周) period that both vegetables and meat began to be used as ingredients for vinegar pickles and that the salting meat and vegetables technique began as long ago as 3,000 years. But considering the jars excavated from artifacts of the Neolithic period 5~6,000 years ago, it is presumed the history of salt pickling is longer. For example, ‘soy sauce jar’ was found from artifacts of the Han period pottery.

『Book of Songs』, a book written over several hundred years about three thousand years ago, also includes direct references various yancai and various yancai recipes. According to 『Zhouli 周禮』『Yili 儀禮』『Liji 禮記』 and other references of similar periods, other than boiling, steaming, and roasting, salting was the predominant method of making food, and the majority of menus were cold foods. Salt pickles were accompaniment to ‘raw meat’ including raw beef which has been a favorite dish of Chinese people since the Qin period. By the Han period, ‘raw meat’ grew more popular, and chicken and fish were also used for cold dishes. In the Sung Dynasty, fried vegetables became popular among the nobility, and raw meat waned into less significance, though cold dishes remain a favorite dish for the Chinese people and the salt pickle its must accompaniment. Since the Qin period, various ‘hai’ (salted fish slices, salted meat slices) and ‘xi’ (vinegar) appeared. It was written that more than 60 kinds of hai and xi were on the dining table of the emperor, and all were made from meat and vegetables.

Yancai, history and regional differences

Yancai has distinctive regional characteristics which over time grew more solid, evident in the Chinese food of today. Though the Yellow River, the site of 『Shijing』 (‘Book of Songs’) and the Yangtze River,
the site of Chuci are not distant from each other, they each have their own yancai, recipe, food style and taste. Hai and xi is a 3000 year old preservation method of meat and vegetables practiced in the regions near the Yellow River and the Middle Region. Shuowen has it that “with meat, alcoholic beverage, and salt make salted seafood and salted meat.” “Hai” in the Yellow River region is a preservation and processing method for meat and fish. Quoting Zhouli Tianguan Zhengxuan (Confucian sholar, the Later Han, China) described the work of hairen(人) who is in charge of making salted meat in detail. “To make salted fish and meat with bones, and salted fish and meat without bones, first dry the ingredients, chop them, put them in alcohol together with millet, malt, salt, and seal tight for one day.” Old literature introduces countless salted meats. For example salt pork, salted beef, salted deer, salted deer, salted rabbit, salted wild goose, salted clam, salted ant, saltedroe and others. Shiming shiyinshi explains salted meat with bones is ‘ni’, and salted meat with a lot of soup is called ‘xi’. “Watery salted meat appears in Yili Gongshidaifuli There are numerous kinds of ‘xi’ and it takes careful attention to make. Depending on the ingredients, amount, mixing ratio and other minor changes may make a big difference in the taste. Generally, flavoring is added to it, for flavor and preventing chi from spoiling. Beside salted fish and meat, there are salted vegetables including salted mustard as well (Liji). Those were for not for ordinary people. In Shiming shiyinshi (history book of the late Han period), Liuxi (刘熙) said “douchi is delicious. The best douchi is when it has 5 tastes in harmony. Everyone enjoys douchi.” The birth of douchi goes back to the Warring Period. Chuci Zhaohun wrote “... too bitter, salty, sour, spicy, and sweet. Wang yi zhu also said “douchi(脗: a condiment made of fermented beans), too bitter.” The bitterness is believed from the spawn and spores of the mold that was created in the course of adding salt to fermented beans.
According to 『Zhouli 周禮 · Tianguan 天官』 in the royal palace, there were designated officials in charge of salted meat and fish and a vinegar pickling man (hairen). “Vinegar pickling man makes 7 kinds of pickles with 5 tastes. The pickles are used at memorial services. Guests were invited to have the pickles. The King, queen, and crown prince were served 60 kinds of vinegar pickles, 50 kinds were for guests.” The organization was big in size: 62 people worked on salted fish and meat, and 63 on vinegar pickling, all women.

While the king’s extravagant food displays demonstrated his wealth and power, for ordinary people food was a meager, every day existence. 『Analects』 has an anecdote of Weizi (微子) of Lu (BC 11C). In the story, it is said during the Spring and Autumn Warring Period the vinegar pickle was a basic food for ordinary people everywhere in the Yellow River area. Given only that vinegar pickle is mentioned, and nothing about fish or meat pickles, it is believed that the vinegar pickle, and not fish or meat pickles, was the must food for ordinary people.

Most of the old references of the Qin Dynasty (BC 221~ BC 207) describe social customs and the history of the Middle Region in the Yellow River basin. For example, the three books 『Zhouli 周禮』『Yili 儀禮』『Liji 禮記』 and the 『Book of Songs』 portray the Yancai culture in northern China. In comparison, records of the Yancai culture in the Yangtz River basin which is the site of 『Songs of Chu』 are only few in number. However, the Yancai culture in the north and the yancai culture in the south region share a lot of similarities. In the 『Songs of Chu』 appear the terms ‘fish and meat pickle’ ‘vinegar’ and the phrases ‘bones were made into sauce’, “too bitter, salty, sour”. Bitter taste is often mentioned as “pork pickles, dog meat are bitter”, “mugwort is sour”, is believed referring to salty douchi. “It is bitter” is also because animal’s bile was used in the pickles. The sour tasting liquor is commonly called ‘bitter liquor, or the liquor of pain’. When liquor is brewed wrong or from inappropriate preservation, the original flavor is lost and a sour taste sets in. Old Chinese people drank the liquor calling it ‘bitter liquor’, which is how the name was given to sour tasting spirits.
By the Han Dynasty (BC 206~ AD 9), more vegetables than fish and meat began to be used for pickling. This signifies the food’s distinctive feature of the Han’s agricultural culture which resulted from agricultural development and farm population increases.

『Qiminyaoshu 齊民要術』, published in the early 6th century conveys relatively detailed records on yancai, though limited to the production activities and traditional dietary habits in the Middle Regions. Considering most of the features of a small scale agricultural society described in the book were about 1,500 years ago, only 500 were about yancai 1000 years ago. The publication of 『Qiminyaoshu』 dates after 『Siminyueling』 (‘annual events’) by Cuishi 崔寔, of the Later Han. The book wrote about agricultural activities and agricultural products storage as follows: “September: tending vegetable garden, warehouse painting, underground cell mending, .. curled mallow pickle, curled mallow drying, zicao 紫草, ginger, myoga storing. October: plaster mud on the window open to the north, radish harvest, cucumber pickling.”

『Qiminyaoshu 齊民要術』writes of the 20 most typical vegetables of the Middle Region and 20 kinds of salt pickling methods in the early part of the 15th century.

All the yancai ingredients mentioned in the book are vegetables grown in gardens or in the wild and easy to find in the middle and southern part of the Yellow River basin. The pickling methods were from either observing or oral tradition. Pickling methods may vary, however, salt and fermentation are the main processes in all. 『Qiminyaoshu 齊民要術』 gives us the picture of yancai culture of the era when the author Jiasixie (賈思勰)lived and of the yancai culture around the 15th century, including changes made to yancai over time. In the chapter 「Salt pickling, vegetable preservation methods」 of the book, several typical pickled foods are introduced next.

Sun flower, cabbage, turnip, mustard leaf salt pickle: select good ingredients and bind them with red oat grass or cattail, wash them in
very salty water and put them in a jar. If washed in fresh water, they may go bad in the course of pickling. When impurities settle, select vegetables and put them in a jar. If green (color) still remains on the vegetables, remove salt with water.

**Turnip, mustard leaf pickle** : salt for three days and take out. Make Chinese millet gruel, Grind wheat into flour, sift them and make gruel out of it.

**Mug wort pickle** : turn over stems and roots, pour salt water with impurities sediment removed; it should be yellowish in color and tasty. For less salty pickles, add millet porridge.

**Redish pickle** : it is made in January, the ingredient is dried turnip. Soak dried turnip in boiling water, remove impurities, take out and wash in clean water, put them in salt water and pick them up, let it drain overnight and color will come back. Make porridge with millet powder and filter out through silk cloth. Porridge doesn’t need to be hot; pour porridge up to the level of ingredients; put them in a jar; bury the jar underground for 7 days. The jar should be covered with rice/barley straw. Jiasixie (賈思勰) added “pickles are made with the whole vegetable; it is called ‘niang cu 醞漬.” The same vegetable pickling method is still found in the countryside of northeast China and the Middle Region. Fresh pickle making is much simpler. Boil curled mallow, pour vinegar and soy sauce makes the pickle.
Jiasixie (賈思勰) introduced curled mallow pickle making quoting the "Shijing (食經) (Sui Dynasty, Wan Ma’s medicine book). “Dried curled mallow 5 hu (measurement unit), salt 2 dou, water 5 dou, cooked barley 4 dou (6.25kg) : curled mallow 1 hang, salt, rice 1 hang, pure water to the brim. Let it stay for 7 days, when its color turn yellow pickling is completed. I believe "Shijing" is written by chuihu, a government official of North Wei under his mother’s name. "Shijing" also has salt cabbage making method, “put 3 dou of salt into 4 dou of water, pour it on cabbage to have cabbage loose water. Put nuqu (女曲) in 1 hang of cabbage.” Here nuqu refers to wheat and huangzi (黃子). Chencangqi (陳藏器), a famous medicinal herb specialist of Tang Dynasty wrote of vinegar pickling as follows. “Pound 1 dou (1.87kg) of rice in stone mortar. Add 3 dou (1 dou = 1.87kg) of water to it and make 3 dou of porridge. Put vegetable in a jar and add the porridge. Let it stay one day and pour boiled sweet wormwood and scallion 1 hang each and matang (sesame candy).” He also introduced zangyuegua (藏越瓜) that is included in the "Shijing". “Boil 1 dou of rice to porridge and add salt to it. Cleanse gourd and put it in the porridge and tightly seal the jar with mud. shu (蜀) people like it.” There is another. “Small gourd 10, douchi 5 doe salt 3 dou. Cut gourd into pieces and sprinkle salt over it. After three days, it is ready for eating.” "Shijing" also has a record of canyuegua (藏越瓜) pickle：“Preserve gourd in rice wine filter cake 1 dou and salt 3 dou for three days. Take it out and remove filter cakes. Repeat the process one more time. Use cloths to keep it from going bad. People in Yuzhangjun (豫章郡) plant gourd late, and their gourd tastes different.” Yuzhangjun is Nanchang today. "Shijing" also wrote of cangmeigua (藏梅瓜) pickling method. “Peel the skin of well ripen plum; slice it thin. Cover ashes over it. Cut it in small sizes 3 fen (分) 2 cun (寸), blanche it and add plum juice. Several days after, it is ready for eating. Adding sour taste pomegranate will make it more tasty.”
Gourd pickle: Carefully pick gourd without gashes, and cut them into pieces. Scrub them with salt several times, dry in sunlight until it wrinkles. Mix it with April made beigiu (unpurified liquor) filter cake and salt. Several days later add salt, honey, nuqu(女曲), filter cake and preserve it. Keeping it in an earthen jar makes tastier pickles.

Gourd mustard pickling: cut white gourd to the size of 3chi(尺, 1chi=30.3cm) in length, width, 2 fen(分, 1fen = 0.3cm) thickness. Finely grind the mustard and water parsley and filter residue. Add salt and vinegar, put in the cut white gourd. The longer it keeps, the deeper it tastes.

The old references on farming, seasonal customs, home, brewing, salt pickles, kitchen, foods for about 1400 years period from Qiminyaoshu to the late 19th century show that for over two~three thousand years, the kinds of yancai and how to make them have not changed much, at least in terms of ingredients and production methods for yancai that ordinary people eat every day. 「Yanyancai 腌鹽菜」 (Salted vegetable making) in the yinzhuanfushijian published in the mid Ming Dynasty wrote “Remove cabbage root and yellowish leaves, wash cabbage clean and let it drain. Sprinkle 10 jin of salt over 10 jin of cabbage leaves; put licorice stems in a clean jar. Sprinkle salt in between cabbage leaves and put them in the jar. Add a little bit of dill. Press down on it with hands and put several licorice stems and a stone over it. Three days later, turn leaves upside down; wring bittern out. Put the leaves again in clean jar. Pour bittern onto cabbage. 7 days later, repeat the same process. Pour in clean water and put stone on top. This completes a tasty cabbage pickling.” The book also includes mustard leave pickling. “Keeping mustard leaves from water, let them dry 6 ~ 7 minutes in sunlight. Add 2 liang of salt and let it stay overnight. Tie mustard stems in small bundles and put them in a small bottle. Hold the bottle upside down to completely drain; boil the salty water from the bottle and cool it. Put them in a bottle; seal airtight.
Eat in summer. Radish pickle in rice wine filter cake was a kind of delicacy. It is made of 1 jin of radish, 3 liang salt. “Wash radish clean and dry them in sunlight. Mix filter cake and salt, and put radish here and there; then put them in a jar. The author of the book said ‘it is not an everyday food. Different from other everyday side dish yancais, the radish pickle in filter cake is an elaborate and lengthy process.” In those days, 1 jin equaled 16 liang, and the measuring unit is still used in the 20 century.

『Shixianhongmi 食宪鸿秘』 published in the early Qing Dynasty has a record of “jingshiyanbaicai 京師薬白菜”. “Make pickles with 10 jin of winter vegetable and 4 jin of salt. Make sure not to make it too salty. The pickles can be preserved until spring. Winter being severely cold, 7~8 jin of salt would be enough… Southern part of China make jicai (薑菜) using salt up to 4 jin per 100 jin of vegetables. It will be good until spring. Rinse it clean and semi-dry in a cool place. Put in the kettle, boil and dry again in a cool place. Cut it into small pieces, steam in steamer, and dry again to make delicious meichai. In the Northern region, three day old cabbage meichai is good for eating; in the southern regions, it takes 7 days before its ready enough to eat.” The book also introduces ‘yancai’. “Dry 100 jin of cabbage in cool shade. Keep it from water. Dust off dirt; take off withered leaves. Sprinkle 2 jin of salt and pile the cabbage on top of each other in a jar. After 3 or 4 days of salting, rinse the cabbage with bittern. Sprinkle salt one more time and pile them in layers. In total, 3 jin of salt is used. Sprinkle sea water over it and sealing airtight will keep the cabbage pickle for a long time.” The book introduces another method. “Remove root and withered leaves from winter cabbage, wash clean, and hang them to dry. Use 10 liang of salt for every 10 jin of cabbage. Put licorice first in a jar, sprinkle salt in between cabbage leaves, then put them in the jar of licorice. A little bit of dill (chili pepper is ok as well) can be added, then use hands to press down on the cabbage. Add some more licorice, press the cabbage down with a stone on top. After 3 days, transfer them to a different jar upside down (the jar should be completely dry). 7 days
later, repeating the previous process and putting a stone on top makes an excellent sour tasting pickle.

『醒園錄』published in the mid Qing Dynasty has a record of yanjiecaifa (腌芥菜法) “Remove rotten parts and blanche vegetable. Cut them in half; if need be into quarters. Dry in sunlight (for about two days) and put in a basin. 3 jin of salt for every 10 jin of vegetables (if you want to make it less salty, 2.5 jin); sprinkle 1.5 jin of salt on cabbage, mix it up by hand. Put them in a big container and press it down with a stone on top. Three days later, place a clean container on even ground, put a panel on the container, and drain the vegetables using a sieve. Put them in a bucket; press down on it with a stone to squeeze juice. Boil the juice; cool it to make clean broth. Put the remaining half of salt in a jar and pour the broth in the jar through a fine bamboo sieve to sift out residue. Jar is to be buried underground. To use small jars is better so that when one jar is finished, one can move on to another jar.

The book also includes a ‘radish pickling method’. “Harvest radish in July and August. A hand size radish is ideal. Take off stems, roots, and withered leaves; wash clean; dry 5 ~ 6 minutes in sunlight and weigh on a scale. Use 1 liang of salt per 1 jin of radish. Rub radish well with salt to leach water from radish; put them in a jar and seal tightly. The next day, take out radish and dry them in sunlight and wind. One day after, rub radish until water oozes out from radish and gets soft. Put it in a jar with a narrow mouth and seal it tight with chaff to block air. Keep the jar in shade. One month later, radish pickle is ready for eating. If you want small sized radish pickles, wash and then cut radish into little finger size. 3 fen (分) thick, 2.3 fen long is ideal. Dry in sunlight for 5 ~ 6 minutes. The rest is the same as the above. “Cabbage vinegar pickle making’ is also included in the book. “Blanche cabbage in boiling water. Put cabbage in a jar, and pour in water with some vinegar in it; seal tightly. In 10 days, pickles will be ready.” Another method is also introduced. “Cut cabbages, blanche them in boiling water; take out quickly and put them in a jar. Put the blanched cabbage and soup in a
jar and seal tightly. The next day, sour, crunchy pickles with clean soup will be ready for eating.

『Yangxiaolu 養小錄』 published in the mid Qing Dynasty also has a record of “yancai”. “Dry 100 jin of cabbage in sunlight. Keeping it from water, remove dirt from cabbage and remove withered leaves. Sprinkle 3 jin of salt in between leaves and put them in pile in a jar. Pour in water and seal it tight.” Another method of making yancai is also introduced. “Cut out roots and leaves from November cabbages, wash clean and hang out to dry. Use 10 liang of salt for every 10 jin of cabbage. Put several roots of licorice in a jar and sprinkle salt over them. Put a little bit of dill (pepper is also good) and press down by hand. When the jar is half full, put more licorice. When the jar is full, press cabbage down with a stone on top. Three days later, transfer cabbage to a new jar (jar should be dry and clean), and add the remaining salt. 7 days later, transfer cabbage to a new jar again, pour well water in and press down with a stone.”

『Zhongkuilu 中饌錄』, in the late Qing Dynasty introduces “how to make winter vegetables”. “Dry winter vegetables by the wind; on a fine day, wash cabbages clean and take out tender parts. Dry cabbage 1~3 days in sunlight; cut into horizontal slices and dry. Add Chinese pepper and rub the cabbage with salt. Use less salt. Dry cabbage for several days in sunlight, pour in alcohol and soy sauce and rub them into cabbage. Put cabbage into a jar. Cabbage will become reddish and mature. It doesn’t go bad even in summer.” Sichuan Paochai (泡菜) is everyone’s favorite and 『Zhongkuilu 中饌錄』, also has a record of “Paochai”. “Put cabbage in a jar, salt it and pour in water (boiled with Chinese pepper, salt and then chilled, a little spirits added afterward) over cabbage until they are all under the water. It is like a winter hat: when the cabbage is kept submerged, it keeps air out, and cabbage doesn’t go bad. All vegetables need to be dried in sunlight before they are put in water. If the water turns moldy, pour in some spirits. If vegetables are added, they should be accompanied by additional salt and spirits. Change the water every day. The more days, the tastier it gets.”
Chinese Yancai Culture Respective of Social Classes

As found in old documents and food-related references, yancai is a representative Chinese food and constitutes a part of Chinese culture. Different social classes have their preferences, however, yancai is a must dish for all, king, nobles, and ordinary people. Especially in recent years, in keeping with the recent rapid urbanization and consumption level growth, various new yancais have been put out on the market. Yancai is now more than a food; it became a social culture reflecting a feature of urban development. “Yancai shops” in cities is a representative example of the phenomenon. Though limited, the shops play a significant role in the growth of yancai consumption. Such trend that began in the Song and Ming Dynasties, continued into the modern era and became distinctive due to concentrations of the urban population. People drop by nearby yancai shops and buy soy sauce and bean paste, vinegar pickles, and yancai is now a familiar scene. During the vegetable harvest season when a lot of vegetables are available in
markets, each household makes their own yancai, and the tradition still continues. 30 years ago, I observed people making yancai in a small alley of Shanghai, the biggest city of China. I even tried to make it myself. Most of the squatting people making yancai were elderly; I felt sorry the yancai-making tradition is being forgotten by the young generation. The scene reminded me of people eating zzongzhu (総子：steamed glutinous rice with dates, red beans wrapped in bamboo leaf or reed leaf) at the time of the Dano festival from a wooden barrel or dish sitting on a bench outside the gate.

Zhaoyi (趙翼, 1727 ~ 1814), one of the three top scholars at the time of Emperor Qianlong (the 6th emperor of Qing Dynasty, reigned 1735~1795) well portrayed the scene of yancai-making in his poem titled “On October 28, the eve of my 80th birthday, cabbage yancai making to prepare for winter.” “Countryside wind is warm, children chattering. Jewels are full, the sound of a drum resonating, people trimming leaves and roots.” Zhaoyi lived in yanghu (陽湖, presently 江苏江阴) during the mid Qing period and he wrote this poem on his 80th birthday, in 1807, about 200 years ago. At the age of 34, he went into office, became a master poet and influential politician whose name remains famous in the succeeding generations. He was given a magnificent party for his 80th birthday; it was the yancai-making period; and as an anniversary activity, he made yancai with his families.

Yuanmei (袁枚, 1716~1797), one of the three top scholars at the time of Emperor Qianlong of Qing, was the expert on Chinese food, called “the god of food” and his book 『Suiyuanshidan 隨園食單』 (‘Suwon’s menu’) was considered “the bible of old Chinese foods.” In the book, he wrote in detail of yancai that he tasted, heard, and observed from people making it. “Cabbage pickle” is introduced in the book. “Cabbage pickle is fresh when bland but when salty taste turns strong. Over time it needs more salt. Bury the cabbage pickle jar in the garden. Open it after mid summer heat is over. Upper part may give off a bad odor, however, the lower part is a jade color and has a unique taste.” In the section of lettuce, two ways of eating lettuce have been introduced. “It is crunchy
if you eat it with paste. You may eat it salted, which is also fresh. Lettuce is better when bland. Salty lettuce would be tasteless. Xianggancai (香干菜: dried vegetables) section writes “Dry spring mustard leaves in sunlight. Put liquor, sugar, soy sauce into the leaves; steam it and dry again, then put it in a bottle.” In the section on leaf mustard, “Leaf mustard is tastier when bland. Dry them in the wind, cut them into pieces and put them in a bottle. Eat it when matured, it goes well with yugeng (魚羹, fish soup). To add a little bit of vinegar is also good. Steamed eel or carp cooked with mustard leaf pickle makes excellent cuisine. In the section on spring mustard leaf “Dry spring mustard leaves in the wind, cut them, and salt, matured, it is called nacai (挪菜).” In the section of Jietou (芥頭: mustard root) “Slice the root of mustard and salt them together with mustard leaves. You may dry them in sunlight; it makes an excellent side dish.” In the section of Fengbiecai (風當菜: dried vegetable) “Dry winter vegetable in the wind and salt them; put them in a small bottle, seal airtight and keep them upside down in the mud. When matured, it is yellowish and has excellent flavor.”

In the section of Jiangjiang (薑姜: ginger pickle), “slightly salt tender gingers and mix it with soy sauce. Mix soy sauce with the cast-off shell of a cicada, then add ginger is an old recipe of ginger pickle.” In the section of cucumber pickle “Mix cucumber and soy sauce, dry it and then pour in soy sauce again. It tastes sweet, though not crunchy. The cucumber pickles Shiluzhenjia (施魯震家) made in Hangzhou (杭州) is peerless. Repeat soaking cucumbers in soy sauce, dry them until wrinkled; still it maintains its crunchy texture and is very tasty.” In the Jiangwanggua (薑王瓜) section, “Pick slender wanggwa (王瓜) when it is young, salt it and add soy sauce. It is crunchy and fresh.” In the section on oyster pickle, “first rinse oysters well and put them in soy sauce. Wash it before eating. It is also called qilincai (麒麟菜).” In the section on cabbage, “Cabbage from Chengensi temple (承恩寺) in Nanjing is best especially the older it gets. It goes deliciously with meat.”
In the section on radish, “Select big and plump radish. Soaking them in soy sauce for one or two days will make sweet and crunchy radish pickles ready for eating. It can be paired with steamed dry fish. The radish pickle Yuanmei (袁枚) wrote of is salty while the cabbage pickle of the Chengensi temple of Nanjing has a vinegar taste.” In the section on vinegar vegetables (suancai 酸菜) “Dry winter vegetable in the wind; slightly salt them, add sugar, vinegar, mustard powder, salt water and put them in a bottle. Soy sauce is good, too. It is good to relieve a hangover.” In the section of taicaixin (台菜心), “Salt taicaixin and keep it in salty water in a bottle. You can eat it in summer. Its dried flower is called ‘菜花籽’, and goes well with meat dishes. The ingredients and foods included in the 『Suyuanshidan setItem 』are from Henan, Shandong, Hebei, Fujian, Guangdong regions and the various pickle recipes well portrays the social customs of the era. While 『Qiminyaoshu 齊民要術』 is by agriculturalists 1,500 years ago, 『Suiyuanshidan 随园食单』is the book of what food specialists experienced themselves at home kitchens and tables, compiled 250 years ago.

The nobles and the well-to-do had helping hands in the kitchen and enjoyed three rich meals a day, not to mention various yancais. For ordinary people, however, even yancai was a luxury. In Ningbo (宁波) there is a saying “Three days going without vegetable pickle soup, legs are trembling.” It was quite often that ordinary people eat only rice without any side dish. The vegetable soup with yancai in it in Ningbo region has a unique taste to it, and it became a famous Ningbo local specialty. Yuanmei (袁枚) wrote “Yancai made in winter becomes a precious item when summer is at its peak.” Ningbo is an agricultural region and their pickled vegetables are the treasure of all yancai. The pickled vegetables are also used in boiled chicken, duck, fish, and meat dishes and they go well with tofu, bamboo shoot, and taro. It can also be used in noodle dishes. About 20 years ago, a restaurant owner asked me to recommend a food representing Ningbo. I recommended Xuecaidatanghuangyu (雪菜大湯黃魚 : winter vegetable
yancai yellow croaker soup). At the time, people thought it too simple a dish and could hardly be regarded as a food representative of Ningbo. However, this food made of yellow croaker from the seaside town, northeast of Zhejiang and pickled mustard leaves from Ningbo, later became a very popular and superb local dish. This simple thick nutrient soup became famous through word of mouth, and having now become a ‘best food’ of the region, sees customers stand in long lines for it.

Chinese Yancai Today

Seemingly as people’s tastes getting more sophisticated and their ways of thinking changing, yancai consumption is shrinking. The following are general features of Chinese yancai today.

1. High-quality and convenience-oriented production and consumption of yancai are spreading from urban areas to countryside villages.
2. The ingredients for traditional foods such as mustard leaf, radish, cucumber pickle, and Sichuan paochái are being sold in markets.
3. With the development of distribution channels, local specialties that were available only in certain regions are being distributed nationwide.
4. Yancai production methods and consumption patterns vary, respective of regions, people and social class. Cabbage pickle, cucumber pickle and Korean kimchi in the northeastern region are good examples. In particular, the so called “xiancai of ethnic Koreans in China” in the northeastern region is popular among people for its varieties and unique tastes.”Keymuqi” is considered the best. Spicy and sour keymuqi is one of the yancais common in the northeastern region. Salted and fermented cabbage, keymuqi-making at home is a common scene in winter. Keymuqi’s popularity is less than before; however, it is year round side dish that can be bought in the market. Cowpea pickle (
and pepper pickle in the Midwestern region, and bamboo shoot pickle in the southern region are unique to their region. Geographic origins faded as restaurants and hotels all over China started making their own versions; however, they still retained their old character.

Today, the most common yancai found in China are jiecai (芥菜: pickled vegetable), soy sauce pickled vegetable (sichuanpulin 四川普林’s are the most famous), cabbage (Yunnan’s is considered best), dried radish (Xiaoshan Qu’s is most famous), cucumber pickle (there are many regional varieties, for example Guangdong daqiao 竹桥 cucumber), Beijing Liubiju (六必居) soy sauce, Jinzhou soy sauce pickles, Sichuan paochài, Korean Chinese kimchi and others.
Kimchi and Kimjang Culture
Salted Vegetables and the Food Culture of the Keijiazu Families in Guangdong Region

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Preface

『Shijing』 (‘Book of Songs’), 「Siaoya」, 「Xinnanshan」 have it that “There are ‘lu’ in the rice paddy and in the dry field cucumber are hanging on the branches. They are peeled and made pickles to be presented to the emperor”. ‘Lu’ is by all accounts today’s bottle gourd. 2 China had vegetable salting know-how as early as 2000 years ago. The Kenjiazu, a branch of the Han race (Chinese), who used to live in 中原 (Central Districts) moved down to Fukiansheng, Guangdongsheng, Jiangxisheng. On their way going down to the south, they introduced farming techniques and the everyday living know-how of 中原 (Central Districts). According to old references, the Kenjiazu in Guangdongsheng made pickled vegetable, grilled meat, and roasted beans. The pickled vegetables they ate during their flights from the war became their most typical food. 3 Most of them lived deep in the mountains, and making a scanty living underlined the importance of sourcing foods for spring and summer. These circumstances led to the direct origin of yancai, or ‘Chinese pickled vegetables.’

1. 不同客源地区的腌菜制作略有差別, 为客观起见, 本文在作’面’(整个梅州地区)的概述的基础上, 主要以梅州市梅县白客一带的咸菜制作情况为考察对象, 进行点的描述。
2. 参见张发柱：《对我国腌菜历史的考证》——与余光柱同志商榷), 《调味品科技》1980年第5期: 张发柱：《对我国腌菜起源及其史料的几点看法》) 《调味品科技》1982年第6期。
3. 梅州文献汇编/第五集, 丘秀强, 丘尚尧编, (台北)梅州文献社, 1978年版, 第18页。
Various kinds of yancai (腌菜) and Production methods

Yancai was produced by the Kenjiazhu in the Guangdong region mostly in autumn and winter (after October by the lunar calendar.) It was a season of mustard leaves and radish, dry and with larger amounts of sunshine. Winter, an agricultural off-season after rice harvest is done, was the perfect period to make pickled vegetables. The yancai most typical of the Kenjiazhu can be categorized into three; ‘xiancai (‘salted vegetable’), meicai (‘dried vegetable leaves’), and caifu (‘dried slices’.) Xiancai and meicai were mostly made of mustard leaves, caifu mainly from radish.

ShuiXiancai 水咸菜
Xiancai has different names respective of regions. Sichuan and Hunan people called it ‘suancai’, Jiangsu and Zhejiang people ‘xuecai’, and the Kenjiazhu of Meizhou know it as ‘xiancai’. Each region’s xiancai has similarity in terms of ingredients, production method, and taste; however, they have distinctive differences as well. The Meizhou gave separate names to yancai: “shuxiancai” for the salted yancai, and ‘ganxiancai’, or simply ‘meicai’ for the yancai steamed then dried in the sun. Traditional xiancai was made by drying and then salting without the process of soaking in water. Big whole vegetable or long leaved yancai were called changxiancai (‘long yancai’). Of the various varieties, most people’s favorite was the mustard leaves called ‘march vegetable’ or ‘spring vegetable’. ‘Long yancai’ was made of an entirely different variety of mustard leaves - countryside people simply called it ‘xiancai’ referring to ‘the most delicious xiancai’ raised during autumn and winter — and they were typically used to make ‘long xiancai’ and meicai.

4. 梅州文獻通編 第七集，丘秀强、丘尚亮编辑，（台北）梅州文獻社，1979年版，第78页：“冬季蒸酒之外，则以腌菜制粉为事，田中既长之芥菜、萝卜，以盐渍之，贮瓮备用，或擦盐而曝干，则为有名之梅菜干矣。”此处所言梅菜干的制作与现实有所出入。
During traditional period\(^5\), changxiancai (‘long xiancai’) making was the most important household event for the winter. If anyone missed the season, it would mean no xiancai for the whole year. Meizhou is mountainous territory. After the grain harvest, xiancai was cultivated even on the ridges between rice paddies, to increase harvest. After taro harvesting, the land was plowed down and xiancai was planted. In about 20 days, a seedling grew to be about 0.2m size, and they were transplanted. About 30 days after the transplantation, xiancai grew to about 50cm and ready for harvesting. In the past, quantity was more important than quality, and harvesting was done when xiancai was fully grown. The disadvantage of full grown xiancai was in their leaves and stems which became fibrous and rendered its texture tough and chewy. Xiancai were pulled up, roots trimmed off, and then spread side by side along the dike. If the sunlight was strong enough, they got wrinkled in about a week, as leaves and stems turned from green to yellow. The collected stalks were carried home in bamboo baskets to be put into jars with narrow necks that grew wider at the base, generally resembling a tall bottle. After, yancai must then get sufficient amounts of salt to achieve fermentation. The processing and production procedures followed like this: dried ‘xiancai’ on the dikes are taken home - they should be kept away from water, rubbed with salt (coarse-grained natural salt and not refined salt), trimmed, folded (mustard leaves) into half a cheok (a unit of length; small leaves, make one head with two leaves, long leaf fold one head into the desired size), single layered in jars, and each layer sprinkled with salt. Fill the neck of a jar with rice straws to keep yancai from foreign substances getting in. If yancai is exposed to air in the course of fermentation, it may start to stink, so air tight sealing is important. Airtight sealing methods vary. One way is to pack the top of yancai with vegetable leaves and bury the jar in the red clay, a method that is used also for liquor jars. Recently, plastic is used to cover the mouth and tied with the rope. Then the jar is put upside

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5. 本文将当地受现代化生活方式影响之前的时期称为传统时期，截至改革开放前甚至上世纪八十年代初，
当地都处于传统生活方式的统制之下

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down on rice bran (clean sand or wood ash are also used) to keep air from getting in and any salt water from getting out of the jar. For efficient use of land, a cross cultivation is practiced. First, mustard seedlings and sweet potatoes are planted. Their harvesting is followed by planting xiancai or radish. Harvest when vegetables grow big enough and make xiancai with them, and when next round of vegetables is ready, make another xiancai. By the time the last xiancai is made, first xiancai is ready for eating.

The Xiancai making process—though seemingly simple—is actually a delicate job in which the slightest slip-up at any step could ruin an entire jar of xiancai. For example, if xiancai were exposed to air, it would smell bad, and if exposed to water, it could go bad. In case of bok choy, if it didn’t dry enough in the shade, bok choy xiancai would taste acidic; if too dry, the fermentation is interfered with resulting in an acrid taste. Too much salt would make xiancai too salty; too little salt, a less tasty xianca, difficult to keep very long. This know-how learned over a long time, is telling evidence that every little step of xiancai-making counts. Small things may decide the xiancai’s quality, differences in texture, and taste. Depending on individual preferences, one may get a different taste following the same method.

The ingredients of Changxiancai is simple: Course salt (refined salt cause decaying), xiancai, clean water, and other minor ingredients. In the course of salting, water from the vegetable is absorbed by xiancai, therefore Changxiancai is also called shuixiancai (‘water xiancai’). If xiancai is with too much water, it invites quick fermentation and the xiancai gets sour. To have the jar upside down is to lose salt water. Salt prevents decaying, and an appropriate level of salinity will keep xiancai till next winter. All through the year, xiancai can be on the dining table. Different from Chanxiancai, Shuixiancai (‘water xiancai’) soaked in brine is popular in Chaozhou (潮州), and is often called “chazophou cai”. It is made of vegetables with more stems and less leaves. Processing and production follows: first, rinse well; dry (just to dry rinsed water, not the water contained in the vegetable), then soak them
in boiled-and-cooled salt water. It is ready in about two weeks. Good thing about shuixiancai is its crunch and a deep sour taste; the disadvantage is in the preservation period which runs short and the sourness grows. For this reason, in the past when preservation technology was limited, people didn’t eat shuixiancai much. But with the wide distribution of the refrigerator, and the ability to preserve taste preferences, urban people tend to like shuixiancai.

**Meicai 梅菜** (干咸菜、霉干菜)
Meicai is also called ganxiancai, meigancai. It isn’t made with added salt, and it is not salty. As local ‘xiancai’ is used as its main ingredient, it is also called ganxiancai, meaning dried xiancai. Strictly speaking, ganxiancai doesn’t belong to the class of salted food. It is a dried food, and long period preservation is possible through repeated steaming and drying in the sunlight by which fermentation occurs.

Production method of meicai is similar to shuixiancai’s. Rinse well (without rinsing is also acceptable); dry vegetable in the sunlight until it gets soft; blanche the dried vegetable; when green leaves turn yellowish, hang them on bamboo poles. Cut out rough chewy parts to have them dry quick until dampness is gone. When the vegetable is partially dried, tie them two to a head (about half a cheek length, in the shape of a cylinder). Put the tied xiancai into a pot and steam, keeping it from touching the water, and then dry in the sunlight. In the process of steaming and drying, fermentation occurs, and the xiancai gradually gets darker brown and yields its unique fragrance. If the xiancai doesn’t have the desired color and fragrance, repeat the steaming and drying process one more time; this time, the steaming shouldn’t be too long. The complete meicai has a subtle and fresh fragrance, but if it gets soggy, steaming and drying process one more time will keep it from going bad.

**Caifu (dried radish, 萝卜干)**
The main ingredient in caifu is the radish. As radish harvest is done in
autumn or winter to January, caifu-making is done during this period. Like meicai, a reasonable amount of sunlight is key to the taste. Processing and production of caifu is first, rinse radish clean; cut into 3 or 2 pieces; dry them in the sunlight for 2~3 days until partially dried. Rub cut radish with salt; put either in jar or on tray; cover with soft cloth and press with a stone. Sprinkle appropriate amount of salt over it several times. Too much salt will make salty caifu with not enough sweetness to it. The next morning, spread the cut radish to dry in the sunlight, gather them in the evening. Rub with salt and press with a heavy stone. In the process, fermentation occurs and caifu procures a deep taste. If the sunlight is sufficient, in about 7 days, fermented sweet, crunchy caifu is ready to eat. It is transparent and yellow. Fresh taste and crunchy texture are because of the water contained in the radish, repeated rubbing with salt helps maintain the crunchy texture for a long time. A less than desired rubbing with salt may cause caifu to taste tart. Too much salt may kill caifu’s natural taste, and the ordinary household prefers drying them in the sunlight to keep the natural taste over using salt. Autumn and winter are the right seasons to make fresh and crunchy caifu for immediate eating. The longer hours of drying make it darker brown, chewy, salty, and strongly fragrant. “Caifu” includes both dry and partially dried, but in narrower terms, the word refers to partially dried, dried in the sunlight, crunchy and fresh. “Luobogan” (dried radish) is a kind of caifu. Good quality luobogan is dark brown and can be eaten for several years. In some cases, grains of salt appear on the surface of caifu, the taste deepens and a strong fragrance permeates the entire house.
Other yancais (其他腌菜)
The above mentioned three are the representative yancais of the Kenjiazu. Besides, there are other kinds of yancais such as luobomiao, paosuan (salted garlic), paozijiang (salted ginger), and paoqiaotou (salted buckwheat). The luobomiao is the fruit of the wisdom of the Kenjiazu. Its ingredients are turnip and vegetable sprouts. Different from other yancais, luobomiao is both food and medicine. There are two types of luobomiao, dry and wet, and the production of the former is the same as making changxiancai, while the latter is the same as for caifu. Paosuan (salted garlic), paozijiang (salted ginger), and paoqiaotou (salted buckwheat) are made of young garlic, ginger, and buckwheat harvested that year (long-stored buckwheat takes longer salting and has spicy taste). Processing and production is first, to soak them in cold water, putting in the required amount of distilled spirits and sugar, then sealing them airtight. Ripening period varies depending on the texture of ingredients, but in most cases they would be ready for eating within one month. Those yancais are available all over China. Besides this, yansheng is another type of yancai. This one is made of cucumber, radish, and quince. Peel cucumber, slice thinly, and mix with sugar and salt. Radish and quince yancai are made in the same way, and the only difference is shredding. Yansheng is not a side dish but a snack, picked from the field and eaten on site.

Yancai recipes (食用习惯)
The Kenjiazu food culture that has lasted for several hundreds of years went through a lot of recent changes over the past 30 years. Previously, xiancai was the main side dish of the Kenjiazu. For example, 9 families of 3 generations consumed 1 jar a month, or 12 jars a year. As about 40 folded stems (one stem weighing an average 1.5 geuns, or about 600 g)
are put in one jar, they eat 480 xiancais a year (in terms of weight, this is 720 geun, or about 30kg).

In the past 30 years, the Kenjiazu went through structural changes in food culture. Now xiancai is no longer the main side dish; however, though it still is an indispensable food for the Chinese. Farmers eat it with gruel in the morning. When no appropriate side dishes are available, it can be an appetite-stimulating side dish and particularly goes well with greasy foods. For long periods, the Kenjiazu so love xiancai that when they are away from home, they miss it. In the last decade, instead of traditional jars, plastic bottles began to be used to keep xiancai. Due to reduced xiancai consumption, small, easy to carry, plastic bottles with air tight seals emerged as excellent xiancai containers. Some people away from home for long periods made xiancai with whatever available ingredients were available to them. An old document says “the Kenjiazu women found vegetables and made xiancai. In a place where water and land are different, it is not like xiancai at home. But it is better than no xiancai.”

A Chinese laborer working in Mauritius said he and his Chinese friends found vegetables and made xiancai themselves. The xiancai was not like the taste of home, but it was enough to comfort nostalgic longings. If the taste of home xiancai was not available, they made something similar with whatever ingredients there were.

There are many ways to eat xiancai. Certain amounts of fried xiancai at a time would make a good side dish for days. Xiancai can be a good condiment as well. For example, stir-fried xiancai put in steamed bean pods in the carry-over cooking stage makes an excellent dish. Steamed balsam apple, bean pod and xiancai together is people’s favorite to the point that there is a children’s song “DDu ddu dong, (xiancai), let’s make steamed balsam apple and bean pod with xiancai in it.” Other vegetables that go well with xiancai are quince, paprika, white gourd,

11 《梅州文献汇编》第七集，第78
12 乡间常有收废品的人挑着麦牙糖走街串巷，用麦牙糖换牙膏皮、鸡骨皮等物品，
一边走一边敲打手中的两块铁皮，发出“丢丢丢”的声音。
and waxgourd, soybean. Most of them are cucumber type vegetables and beans, not the vegetables of leaves. There are numerous meat dishes with xiancai added; braised xiancai pork belly, braised xiancai short ribs, stir-fried xiancai pork tripe, braised xiancai pork intestines, braised xiancai hare meat, braised xiancai chicken, braised xiancai duck, and others. Xiancai soups are endless. Xiancai sanji xiong tang (lean pork meat, pig’s liver, pig’s small intestine), xiancai lean meat soup, xiancai chicken soup and others. Xiancai can be used as a condiment for vegetable or bone soups; for example, xiancai bamboo shoot soup, seaweed xaincai soup, white gourd xiancai soup, and quince xiancai soup. Xiancai helped create the unique foods of the Kenjiazu.

Of various foods with xiancai, the best is braised xiancai meat. Recipe: stir-fry pork belly, add minced xiancai in the ratio of 1 meat: 2 xiancai or 1:3; add white sugar and water; and cover the pot; boil at low heat. The fragrance of meat and vegetable and the salted taste of xiancai and sweet taste of sugar will be absorbed into the xiancai and meat to make them soft. At least 30 minutes boiling is needed. Make sure not to boil with too high heat; otherwise, meat may become pulpy. The recipe seems easy but it is not easy to make an excellent tasting and just-right texture of xiancai meat. Therefore, in most cases, the best chef at home is grandmother. It gets tastier when boiled more, better a side dish than an accompaniment to a drink. It particularly goes well with rice, and a pot of braised xiancai meat will keep you free from worrying over side dishes for days. By the 1980s, the Chinese came to enjoy material affluence. But farm work was heavy, and to have a hearty meal three times a day was important for countryside people, and braised xiancai meat that can fix several meals was the farmers’ staple food, suited to their rural life style. Turning into the 20th century, the popularity of xiancai meat waned due to improved living standards- people tended to have their meals with more side dishes- and mechanized farming thanks to technological development enabled farmers to afford a more diverse and quality-based life.

Meicai is the most typical food of the Kenjiazu and the most famous
one overseas. Compared with xiancai, other than braised pork belly meicai, there are not many recipes for other meicai. In the past, when China was not affluent, meicai was not a common side dish on the dining table of the Kenjiazu.

The recipe of braised meicai meat is similar to the one for braised xiancai meat, the only difference being their texture. Meicai recipe goes like this: Soak the dried vegetable in water for one-two hours; since it doesn’t use salt, condiments decide the taste of meicai. Meicai always uses pork belly, no lean meat, because pork belly’s fat softens vegetable. First fry the pork belly, then add meicai; add salt and sugar, and keep cooking at low heat until it gets soft.

The ingredients of meicai kourou (dried radish greens with steamed pork) are meicai and pork belly. In the past, since not everyone could afford meat, big amounts of vegetable (meicai) with a small amount of meat was a general form of meicai kourou (dried radish greens with steamed pork), and a lot of sugar was used to give it flavor. In recent years, enough meat became available, and meicai is used only as a minor ingredient, so less sugar is needed. Prepare well cooked meicai. Rinse pork belly; put it in the pot; sprinkle oil over the meat and steam. Take out the meat and put it in a small pot; add salt, soy sauce, five - spice powder, and let it simmer at low heat. When well cooked, take the meat out on the cutting board; slice and put them on a dish; pour gravy over the meat. Put cooked meicai over the meat and steam it, infusing the steaming meicai fragrance into the meat. When the meat and meicai are steamed enough, put dish upside down over it and turn the pot over to have meicai under the meat and gravy oozing down to meicai. Usually one dish of meicai kourou (dried radish greens with steamed pork) for eight people is served, a tradition that originated from a drinking party custom. People may take their portion or leftovers home, wrapped in a plantain leaf or lotus leaf, for their parents or children.

Caifu (dried radish) used to be less important than xiancai and meicai. With recent changes in the food culture, it emerged a delicacy side dish, and together with xiancai, is being enjoyed by the Kenjiazu. Fried,
finely cut caifu (or xiancai, luobomiao) is a usual side dish for porridge and is a must side dish for all meals. Caifu is also used as minor ingredient for caifu boiled egg, caifu beef ribs, braised caifu pork belly and others.

‘Shi luobomiao (‘wet luobomiao’) is a side dish for gruel and rice, and the Kenjiazu believe it is good for the stomach and spleen.

“ganluobomiao (‘dry luobomiao’) when it is dried in the sunlight, becomes similar to xiancai. As it needs salting, its processing method is similar to that of luobomiao. It is considered a health tea rather than a side dish, and is called luobomiao tea. People drank it for diarrhea and stomach problems. With increased interest in health and rural life, luobomiao tea is being sold as a local specialty.

Memory of Foods

For people born in the 1950s, xiancai is like a friend. Most of these people left home for schooling in cities, living in a dormitory. They paid the school for firewood, to use in the school kitchen where each (student) carried their food. Putting everything in a pot, they cooked and ate from the pot. Each one had to carry side dishes as well. Schools didn’t have cafeterias, ingredients was scanty. Life was hard then, and xiancai was the only side dish available. Students went back home once or twice a week to get side dishes, mostly xiancai, which they ate for the week with rice. Even lard in xiancai was a luxury. Students who were better off ate fish or string beans. Not only those born in the 1950s but those born in the 1930s and 1940s have the same memory of their student days. Even to the Chinese living abroad who were more affluent compared with others, xiancai was their main or only side dish. Rich people’s kids might have a fish in addition to xiancai. ‘Xiancai generation’ is now an old story, though xiancai is a memory that lives in everyone’s mind.
Those who were born in the 1950s are now in their 60ies, and memories of their childhood dictate their food preferences. The thrift and saving habit ingrained in them from having lived a hard life of ‘not enough food, not enough clothing, and days of hard work’ still have an influence on their current everyday living. When they eat at home alone, a small dish of xiancai and a dish of bok choy are enough for a meal. But those born in the 1980s, 1970s, and 1960s, xiancia and bok choy are mere basic side dishes, to which a main dish is needed for a whole meal. When xiancai happens to be a main dish, xiancai with meat and a lot of nutrient vegetables are prepared. The current trend is avoiding meat for health reasons.

The Kenjiazu believe in folk remedies. When they have a health problem, they stay away from certain foods. For example, if one has a cold, they are advised not to eat meat, fish, eggs and chicken. A mother in postnatal recovery has a lot longer forbidden food list. Bok choy, considered cold food, is one of them, leaving xiancai and meicai the only choices left. In agricultural regions, if a family expects a childbirth, they make meicai in preparation for postnatal care. For the 40 days lying-in period for a mother, besides rooster’s testicles soaked in liquor (鷄子酒), meicai meat is the only side dish she can eat. If the mother eats bok choy, she has to pay careful attention to baby’s feces, if baby’s feces is watery, mother should stop eating bok choy. This custom is believed originated from the days the Kenjiazu lived in cold regions. Meicai is a safe nutrient food, good for a breast-feeding mother and stimulates her appetite.

If the Kenjiazu were asked what food they all like, the would answer in unison: xiancai. The young generation is not an exception. They have the habit of eating xiancai from early childhood and xiancai is their traditional food culture. The taste of xiancai is inscribed in the Kenjiazu’s DNA, and even babies at their first try become familiar with xiancai. For the young people born in the 1980s who have not experienced as hard a living as those born in the 1950s and 1960s,
xiancai is an important side dish and also a snack. “Ya..” is a familiar sound to them. A hungry boy crouches by grandma. Grandma took out xiancai from a jar, washed it in the stream water and put it in his mouth. After receiving xiancai one or two times, the boy, now wanting to have more xiancai, begins taking it out from the jar himself. Grandma would try stopping him, saying ‘it’s salty to death.’ The habit of eating Xiancai formed from early childhood remains even after the boy grows up, and whenever he sees xiancai, he almost automatically puts it up to his mouth. People do the same with luobogan (dried radish). Raw xiancai and fried xiancai have a different taste. The word ‘xiancai’ in Chinese characters means ‘one bite or two bites before a meal’. My mother still remembers vividly that when I was a junior high school boy, a classmate girl often visited my house. Without hesitating, she ran to her favorite caifu, grabbed several caifu in her hands and ate them. Even now, when I go home, my mother has luobogan ready for me. When I was a college student, in my hands coming back to school from home was ‘luobogan’. Huobogan has a sweet taste to it and I often had it as a snack. When I played with friends, I had a pocketful of luobogan with me and ate while playing. Yedan’s 『Baigong wangshi』 has a similar story. “When I was a child, I often followed grandma to the dry storage place. I could eat various tasty foods, dried sweet potato, dried radish, sugar, various dried vegetables... and other things. Sometimes, my grandma asked me to pick out something from the room, and I got a pocketful and ate it on the way to school.” Yedan’s remembrance is a picture of the 1920s and 1930s. To have luobogan as a snack was a memory of days long past. At that time, most people were poor, and there were not many kinds of snacks for children. Different from today’s meicai, luobogan is still a favorite snack for its taste and nutrients.

13_ 语, 客家话音译, 意即从咸菜瓮里取咸菜。
14_ 家里人认为萝卜干对肠胃好, 离家在外, 哪怕当零食吃也是有好处的: 且家中自制的食品, 吃着放心。
15_ 叶丹: 《白宫往事》, 2003年10月印刷, 非正式出版物, 由杨县白宫镇寿康老人活动中心提供。
Many people have warm memories of luobogan. When there was not much to eat, rice gruel and luobogan was a snack for one or two year old babies. Luobogan is believed good for the spleen and stimulates appetite. It is sweet, and children like it. Nowadays, numerous kinds of snacks are available, and luobogan and rice gruel are no longer a favorite snack for children; however people still eat luobogan rice gruel, especially for watery feces or stomach problems.

Conclusion

Yancai is an everyday food, not a food for memorial rites or festive seasons, that penetrates into people’s food culture and stays long in their memory. The Kenjiazu made foods with ingredients they could get from the mountains, and a lot of their foods are described as ‘greasy, salted, and cooked,’ such as braised chicken, fried tofu (醤豆腐), meicai kourou and others. Of those, tofu and Kourou are served with yancai and meicai. Yancai is a representative and indispensable side dish for the Kenjiazu’s meal. Yancai, the product of natural conditions, various production methods, and memories represents the food culture of the Kenjiazu today.
Modernization and continuation of Kimjang culture

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Preface

Kimjang, a comprehensive concept encompassing kimchi as a food; as an activity in early winter to produce a food that lasts through winter; as a preservation process, and as a storage technique has not been a subject of serious attention for culture researchers. Thus far, research on kimchi and kimjang culture were mostly from the narrowed perspectives of food engineering and nutritional science which left out discussions on the value and significance of kimchi and kimjang culture from the viewpoint of the humanities and social science. This article brings understanding to the value and significance of kimchi and kimjang culture and posits reasons why kimchi and kimjang in Korea survived modernization.

English historian Eric Hobsbawn (1917~2012) is famous for his research on invented tradition\(^1\); however, it is not widely known in Korea that his writings point out a genuine tradition existed other than what was invented. Some studies employing the analytical viewpoint of the invented tradition emphasized kimchi was created.\(^2\) While this

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2. A representative research is "Some foods are good to think," K.K. Han, *Korea society of Cultural Anthropology*, 26, 1994
article acknowledges that kimchi and kimjang culture in part are creations, they are also a genuine constituent part of Korean traditional foods that continue throughout modernization to the present day.

This article focuses on that kimchi and kimjang culture is not only an element of everyday foods of Korea but a sacred food consecrated to divinity that has been incorporated into the food culture linking sacred to secular worlds. In addition, it is served both at feasts and everyday, enjoyed by the entire spectrum of society from royal members down to slaves. Even after the liberation of Korea in 1945 from Japanese colonization, kimchi maintained the status of ceremonial food at the memorial services performed at every household and also everyday food for every social class. Thanks to the food culture and a basic framework that remains more or less intact, with some changes, kimchi became recognized again as people food in the 1980s, and that in turn gave birth to the kimchi refrigerator.

What Korea had to do after the liberation from Japan but was unable was to understand the folk culture of Korea and establish a decolonized culture that gave positive acknowledgement to the value and significance of its Korean culture. Leaders of postwar Korea failed to implement effective policies to realize this. The very fact that now in the 21st century, the ‘smelly’ kimchi and kimjang culture is recognized as a world intangible cultural heritage raising national level discussions is proof of the power of the everyday culture. In addition, that kimjang is still practiced in Korea shows the value of folk culture.

The modernization of Korea may well have begun in the late 19th century with the opening of ports, however, this article will focus only the post-liberation period, especially since the 1960s. The object of this article is to examine the correlation between the social economic changes named modernization represented by rationalization, social differentiation, and individuation and kimjang culture, and to understand why kimjang culture still continues. Kimjang culture has both the aspects of change and continuation3. While most previous

research on kimjang emphasized its change aspect, this article will focus on the continuation aspect. For this research, in August 2013, I chose one place in each of the following locations to make field trips and conduct case studies: North Jeolla province, South Jeolla province, South Gyeongsang province, North Gyeongsang province, and North Chungcheong province.

Kimjang culture as a tradition

Food, as a material, is included in the study of food culture as part of material culture studies. In the grand theory of things such as diffusionism and evolution theory, material has been a main subject of studies. According to Morgan, an American anthropologist who said that human culture evolved through certain stages, important criteria of dividing evolutionary stages is the use of certain materials such as fire, the bow, earthen jars and others. Cultural history school developed in Germany and Austria also divided cultural areas and cultural classes based on the diffusion of materials. However, as the studies based on functionalism, symbolism, and the theory of action linking evolution theory and diffusionism put emphasis on social function and symbols, material culture studies remained on the periphery until the emergence of consumption and material studies in the 1980s. In the late 1980s, material culture studies came to the fore again. The studies were on the relation of the value and significance of material to social power, status and identity. Of food, clothing and shelter, the studies focused on food and tried to capture the process how food consumption become associated with power, social status and identity.

4 K.O. Kim “Food production and cultural consumption” Korea society of Cultural Anthropology 26, 1994, pp 7-50
Traditional food studies like regional cuisine attracted public attention for a while, hybridism theory that is said in Hobsbawn’s tradition creation theory and Homi Bhabha’s post-colonial culture theory were mobilized for the studies. The studies paid attention to the possibility that symbols, concept, and value systems related to materials could be manipulated or even fabricated by several elites or power groups for their political gains and asserted that humanism can be realized by defeating the possibility. They think even colonial cultural system can be overcome through the studies. Different from what has initially been intended, such attempt made people either too passive or too cerebral. In the constructive interpretation through discourse analysis, people mobilize whatever possible for their benefit. However, a human being is not a rational being to that degree, so there is need for more discussions on the subject. I believe the human being is Homo Folkloricus having both value rationality and tool rationality, and I object to homo economicus and homo faber. People act to maximize their profits on the one hand, while also acting within traditional value or structure which they follow on the other.

Like all cultural phenomena, tradition as well can be formed, continued, and comes either to have binding force or die away from external elements. Not all Korean cultural traditions have been made or fabricated or invented. To believe the prototype and essence of traditional culture is all false or to talk proto-theory and essentialism distort cultural phenomenon could be, as an American anthropologist Salins pointed out, a cultural imperialistic viewpoint or a misunderstanding of Eric Hobsbawn who asserted invented tradition,

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8. Edward Shils, "Tradition,
10. Hobsbawn divided tradition, customs, conventionality, common practices and he defined invented tradition as "a series of common practices subject to officially approved rules and have ceremonial or symbolic significance." Hobsbawn’s previous book pp 20-21. The characteristics of Hobsbawn’s tradition are constancy and continuity. Hobsbawn also divided genuine tradition and invented tradition, but his division often was ignored by many scholars. Eric Hobsbawn "Invented Tradition," p31.
or a misunderstanding of cultural phenomena in general. Cultural prototype and essence may change over time, space and principal agent, however, a longer period of studies may find analysis on the prototype, essence, and structure of a period in any degree. In this regard, the concept of Hybridism that is the object of prime attention of decolonization reflects reality, it might as well distort reality because Hybridism of a particular phenomenon might be intentionally highlighted. The discussions based on post-modernism that appeared in the late 1990s take up an extreme agnosticism position toward reality, however, as the philosophy questions not only the foundation of academic studies but the very existence of all beings, as Shils shows from realistic tradition, it should be overcome through realism, the premise of all beings. All concepts, content, and form used in the humanities and social science studies are based on existing phenomena and in this regard, such extreme idealism needs to be overcome through discussions based on existing reality.

Generally, modernization refers to social cultural changes that follow economic industrialization. It also includes changes in ideology and social system. This article takes an approach suggested by Hans van der Loo/Willem van Reijen, the Netherland sociologists, who said social differentiation, individuation, rationalization, and tighter control over nature are the main phenomena of modernization. In the Third World, modernization comes with westernization. The subject of this article, kimchi, must also include an examination of the westernization of people’s taste as an important element. In this regard, in addition to social differentiation, individuation, rationalization, and tighter control over nature, this article will consider westernization as well as principal phenomena of modernization.

Modernization, though not necessarily meaning westernization of foods, often brings a new acknowledgement and reappearance of traditional foods. Studies on such paradoxical and contradictory aspects

of modernization constitute part of the recent culture studies. Likewise, modernization does not develop in one direction, and this reflexive aspect in itself has been pointed out by a German sociologist Ullich Beck. However, this article believes the reflexive modernization doesn’t come naturally and comes from the structural strength of tradition.

Modernization of Korea and Kimjang culture

This article believes social differentiation, individuation, rationalization, tighter control over nature, and westernization are included in kimchi and kimjang culture, one of the representative Korean cultural traditions. This article also sets out to review how urbanization, the nuclear family, the invention of the kimchi refrigerator, and westernization of people’s tastes brought changes to Korean society. Urbanization and the nuclear family phenomenon influenced kimjang, making kimchi in winter, and the kimchi refrigerator was the answer to the need to preserve winter kimchi in urban residences. A westernized taste weakened the status of how kimchi would now taste.

Urbanization

It would not be wrong to say that non-intervention of others is the social basis of urban space where more than 90% of Koreans live. There might be differences in degree according to city sizes, however, in most cities, neighbor community doesn’t operate as in agricultural villages. In the 1930s, Louis Worth, an American sociologist observed superficiality, anonymity, and contingency are what typifies the characteristics of urban life. While his observation is limited in that it

13_ Louis Worth, “Urbanism as a Way of Life”, The American Journal of Sociology, 44-1, p12
fails to include various pseudo village communities and subculture, it is useful to explain the urban life in Korea. Human relationship in the superficial, anonymous, contingent, ever-changing city life is related to individuation and social structure differentiation. Individuation refers to a social phenomenon where individuals leave a group and increase their independent activity territory, which in turn leads to the weakness of the primary social unit represented by families and relatives. The increase of individual freedom is secured by superficial, anonymous urban human relationships, and individuals experience becoming a principal in decision making. Not only family and relatives relationships have been weakened due to urbanization. The neighbor community relationship that existed in small geographical spaces has significantly shrunk to the point where that once neighbor community can hardly be found in Seoul, the capital city of Korea. Urbanization, the main factor of dissolving tradition also brought changes to kimchi and kimjang culture and it has weakened the neighbor-community based kimjang culture.

**Nuclear Family**

To say that with modernization the ratio of the nuclear family became higher than immediate families is not correct. It is because the nuclear family typified the family form of Korea since the Joseon period up to the present time. But to say modernization brought down the ratio of the immediate family while increasing the ratio of the nuclear family is correct. The nuclear family refers to a family unit composed of the couple and their children. The current phenomenon sees the nuclear family gradually decreasing in numbers. According to the statistics, the ratio of immediate family household was 21.89% in 1970 but decreased to 12.51% in 1990, contrary to the increase in nuclear family households.  

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14_ K.S. Chang *Family · Life · Politics · Economy*, 2009. P64.
As shown in <Figure 1>, in the year 2010, a 1 person or 2 person household was the most predominant form of family and the ratio of 3 person and 4 person households that are considered in the nuclear family category is continually decreasing. The number of households with 5 or more members has drastically decreased since 1990. The changes are shown in the average number of family members from 3.77 persons in 1999 down to 2.69 in 2010. The ranking of family members per household was 4 - 3 -2 - 5 persons per household in 1995, however it has been changed to 2-1-4-3 persons per household in 2010. The National Statistical Office foresees continued increase in 1 person and 2 person households.

Development of Kimchi Refrigerator

The kimchi refrigerator was made available in the market in the mid 1980s. Development of new technology causes cultural changes’ is a proposition often accepted in humanities and social science studies. However, the appearance of the kimchi refrigerator is an example of a reversion of generally accepted technology - culture relationship. Increased demand for the kimchi refrigerator is proof that the development theorist’s opinion saying urbanization and individuation will reduce kimjang culture, technological development and increased rationality will dissolve tradition is not true. The kimchi refrigerator is a result of a technological achievement in bringing the fermentation process, the core technology of kimchi making, into the refrigerator. It corresponds to what van der Loo and Reijen said, that is, technological development brings nature into culture, but is incongruent to the theory of modernization saying technological development often destroys traditional customs. As shown in advertisements, modern technology sometimes evolves from the framework of old traditions. Tradition tows technology is well shown in the popularity of the kimchi refrigerator. While there are concerns kimchi is getting less important on Korean’s dining table, 80% of the Korean household still have a kimchi fridge. Considering the fridge first came out less than 20 years ago in the market, the fridge continues to be very popular, which represents the power of cultural heritage, kimchi and kimjang culture. The invention of the kimchi fridge helped overcome the restriction of residential space of apartment living. Past preservation methods was of packing the kimchi into jars which were in turn buried underground through the winter. The kimchi fridge enabled kimjang culture to continue, and were it not for its timely invention, kimjang culture would have weakened greatly.

17. Which company developed the kimchi refrigerator first is a big issue. But this paper will not participate in the debate. This is why exact year of kimchi refrigerator development is not mentioned. 18. 2010 Kimchi Refrigerator Survey, M Brain Trend Monitor, 2010.
Westernization of Taste

Westernization is found in all aspects of the folk culture of the Third World. It is also found in kimchi and kimjang culture, the subjects of this article. McDonald’s and other fast foods are often considered symbols of westernization, though it is rather an example of industrialization of traditional food or one-person dining, and not an appropriate example of westernization related to kimjang. The representative index of westernization is the consumption of rice and milk. According to the report prepared by the Livestock Management Division, Ministry of Food, Agriculture, Forestry and Fisheries, milk consumption was 62.4kg per person in 2003 and increased to 70.7kg in 2011.¹⁹ Such increase of milk consumption which was only minimal only 20 ~30 years ago meant there was a huge change in Korean diets. In the consumption of rice, which is an important index for kimchi consumption, the same trend is found. Rice consumption 83.2kg in 2003 decreased to 69.8kg in 2011 and the decrease replaced by bread. As of 2011, the bread market was 4.7 bil. dollars, increasing an average 15.15% a year.²⁰

¹⁹ Annual consumption per person respective of items. (http://www.index.go.kr)
²⁰ Refer to “Changed dining culture of Korea”, Kukminilbo, March 28, 2013.
The decrease of rice consumption and the increase of bread and milk consumption suggests a Korean’s everyday food life has been westernized. In case of kimchi consumption per person, it was 36kg in 2000 but decreased to 28kg in 2009. The number of households making kimchi at home decreased from 68.5% to 54.5% in 2010. These statistics are also found in the thesis of Kim Ju-hyeon, Yun Haeryo, which show generational differences. People in their 40s who make more than 10 heads of kimchi were less than those in their 60s. Interesting point is that while the number of households making kimchi themselves is decreasing among respondents in their 20s and 30s, the degree of decrease is not significant. According to the survey conducted by the Cultural Heritage Administration, as of 2011, 80% of Koreans answered either they make kimchi themselves or participate in relatives’ kimchi making and 95% said they eat kimchi at least once a day. This statistic suggests that despite the westernization of the Korean diet, traditional food is still going strong.

Continuation of kimjang culture

Kimjang culture in nuclear family and urbanization

Kimjang culture includes kimchi-related skill or knowledge, value, symbol system, and social interaction and has historically been an important element constituting Korean culture for quite a long period. Kimchi, together with soup and soy sauce or soy bean paste was the most basic component of Korean dining, and regardless of social class it was considered precious. Community is often mentioned when talking about kimjang culture.

While community is an important element that enables the kimjang culture, to insist on connecting kimjang and community too closely would distort the true picture of kimjang culture. Kimjang has been one of the seasonal customs, but regional community or relatives have not always been called for. The expression ‘kimjang community’ doesn’t sound too strange, though it was often the case that people I met in the countryside denied the existence of the community.

While individual family kimchi making became more common due to urbanization and nuclear family and many social service kimchi making events are often organized, kimjang still continues in cities and farming areas. Kimjang labor force varies. They may be family members or by exchange of labor among relatives or neighbors, or by other means of labor. This chapter will review how the urbanization and nuclear family changed the various types of kimjang of the past to family or relative labor-based kimjang. It will also examine that the solid status of kimchi among Korean foods and kimjang as a fixed seasonal custom have towed kimchi and kimjang culture along through the changes.

**Kimjang culture in the 1950’s and 1960’s**

In case of housewife A whom I met in the village of Geochang, South Gyeongsang province, married to a man from the same village, both her parents and husband’s were tenant farmers, and came into land ownership after the farmland reform. About questions of kimjang, she said she had never done kimjang together with the neighbors. To further questioning, “Did other families in the village make their kimjang on their own”, she said yes. Because they were so poor, many people could not make enough kimchi to last the winter.

Such single household kimjang is also found in the case of housewife C in the village of Yecheon. She explained how it was in the 1950s. Different from person A, her family were landed tenant farmers during the Japanese colonial period and her parents owned the second biggest land parcel in the village. However, her families did their kimjang
without the help of the exchange of labor. Cabbage and radish were planted on about a 10 pyeong size tract of land after the hemp was cut down, and the amount of harvest was not bigger than what the family could handle so more labor was not needed.

As respondent B said, both in Yecheon and Geo chang, condiments for kimjang were far from enough. Though salt, garlic, and pepper are basic condiments for kimchi, in many cases garlic and pepper, not to mention ginger were luxuries, and winter kimchi was made of cabbage, radish and salt. Shortage of condiments was not only in the case of the two regions of Gyeongsang province. H village in Gangwon-do province and P village in Sunchang in the Southern Jeolla province also relay the case of the condiments shortage. In case of Yeongwol in Gangwon-do province, people made white kimchi when red pepper was not available. Talk of the insufficient amounts of cabbage, radish and condiments negates the need for exchanges of labor. Though it is said H village of Gangwon-do province and P village of Sunchang prepared kimjang through an exchange of labor, it still was linked to purchasing power. Those who have small farming land of their own made winter kimchi on their own.

To the respondent in D village of Gochang-gun in North Jeolla-do province, a successful entrepreneur, kimjang was more of a community activity. He made 100 heads of kimchi, and with the village people helping, he generously shared this kimchi with them. It is believed the economically less privileged rendered their help in return for some kimchi. A similar case is also found in Yecheon, Gyeongsang-do province, where economically less fortunate relatives helped with kimjang and received kimchi as compensation.

In the late 1960s, most of the villages in Geo chang, except for A village, formed exchange of labor-based kimjang communities. Parents with many children from the baby-boom generation made a lot of winter kimchi, and exchanges of kimjang labor was the norm. Around this period, Gyeongsang-do province people began using fish sauce a little at a time, which was previously not known in the region.
Exchange of labor was practiced among women in villages: 5~6 people forming a group to make kimchi together and taking turns from one house to another. Preparations for kimjang were done by each household and rubbing seasonings on cabbages or putting fillings in between cabbage leaves was done by group work. Farming villages had more immediate family members and relatives living nearby each other, so the community solution to kimjang took care of having to make huge amounts of winter kimchi. It was also a general practice that farming parents in the countryside made kimchi for their children living in the cities. A couple I met in Sunchang, Jeolla-do province said they still made a lot of kimchi for this reason and exchange of labor was a way to do a big amount of kimjang.

**Kimjang culture after the 1970s.**

The 1970s was a critical period for the industrialization of Korea and during this period, huge scale urbanization took place. As shown in <Table 1>, in 1970, the urban population of Korea was 33.5% but increased to 57.3% in 1980: a 20% urban population increase in a 10 year period. Population by sector, until the mid 1960s, showed agriculture to be the main industry of Korea. As shown in the table, a rural to urban migration began from 1966 when farming villages’ pushing force was stronger than cities’ pulling force. Since the 1970s, urbanization led by the growth of industrial cities took over. Seoul experienced the biggest growth, followed by satellite cities in the suburban areas of Seoul. Busan along with cities in Gyeongsang province grew rapidly in the same period.  

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Those who left farming for the city engaged in manufacturing or the service industries to make their livings. This also caused them to set up new neighbor relations in the cities. Respondent T who left her hometown in North Gyeongsang-do province in the 1970s for Jecheon in North Chungcheong province is an example of this case. T’s husband was engaged in the transportation business, completely different from his previous occupation. Living in the downtown area, they had to set up new neighbor relations. She said, in the 1970s, she didn’t do kimjang alone. 5~6 neighboring households did it together.

She had pleasant recollections from those earlier days. People migrated from various villages in the countryside formed a new community in the city and kimjang was like a festive event. Each household prepared

<table>
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<th>Year</th>
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<th>Urban population</th>
<th>Rural population</th>
<th>Urban population ratio</th>
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<td>19,848</td>
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<td>45,278</td>
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</table>


Those who left farming for the city engaged in manufacturing or the service industries to make their livings. This also caused them to set up new neighbor relations in the cities. Respondent T who left her hometown in North Gyeongsang-do province in the 1970s for Jecheon in North Chungcheong province is an example of this case. T’s husband was engaged in the transportation business, completely different from his previous occupation. Living in the downtown area, they had to set up new neighbor relations. She said, in the 1970s, she didn’t do kimjang alone. 5~6 neighboring households did it together.

She had pleasant recollections from those earlier days. People migrated from various villages in the countryside formed a new community in the city and kimjang was like a festive event. Each household prepared
vegetables and seasoning materials for kimchi and also plenty of food for neighbors who did kimjang together. Even those who didn’t participate in winter kimchi making were invited to dine. Everyone loved sharing their kimchi even with neighbors who are not members of the labor exchange. What she portrayed might be a rosier picture than the reality; still it tells us of the vitality of the new community formed in the cities. According to T, the kimjang community seemed to be a kind of objective-oriented association that was formed among people in a residential district, having nothing to do with blood kinship, school ties or regional ties.

Such exchange-based labor community supporting the kimjang culture in small cities was not a sole culture found only in Chungcheong province. Respondent A living in Sangju, North Gyeongsang-do province had the same memory. When she was in the countryside, individual households did their kimjang on their own, and was much the same practice when she rented in the city her first time there. But after she became a first time homeowner in the 1970s, making winter kimchi together with the neighbors brought her pleasant memories of kimjang.

According to Ju Yong-ha’s study in 2000 on the kimjang culture of Gyeonggi-do province, the respondents to the survey made kimjang together in their own house. The research area was the small city of Icheon, and like Jecheon in Chungcheong province and Sangju in Gyeongsang province, it was interesting. Ju wrote: Generally, kimjang day is decided to be any day in the third week of November (one day in the period of November 20~24). A respondent to his study kept a record of past kimjang days. Since village housewives do kimjang together, one day is selected to fit the convenience of the majority. The kind of kimjang kimchi varied: cabbage kimchi, young radish kimchi, radish water kimchi (‘dongchimi’), Korean lettuce kimchi, green onion kimchi and others.26 As the study was done in 2000, there most likely

26 Y.H. Joo wrote an article on foods for the journal.
had to be some differences from the kimjang culture of the 1970s; a similar kimjang culture probably existed in the 1970s in the research region.

Though there might be regional differences, the kimjang community culture still exists in small cities. Ju’s study also wrote of a case showing a change that took place in the kimjang community. “These days, kimjang is done in late October by the lunar calendar. Salting cabbage is done on Friday and real kimchi making is on Saturday and Sunday. In the past, village women gathered and helped make kimjang. The respondent hurt her hand, so it became impossible for her to help others with kimjang. Now she hires a helping hand for salting cabbage, then her daughters come down to her house on the weekend and make kimchi together. She makes 500 heads of cabbage kimjang to give to daughters and to others in her neighborhood. In the past, village people did kimjang together, but when she can no longer be a member of exchange labor system, her immediate families came forward. In other words, the geographical proximity-based kimjang community has been replaced by the family labor-based kimjang culture.

What was the picture of kimjang in Seoul? Let’s review it based on Ju’s study carried in Gyeonggi Folk Culture Journal IV, Clothing, Foods and Housing.

“1953~1966 period, Kimjang was very different from what it is today. Bae Ok-sun lived in Donam-dong, Seoul. In the neighborhood, many people from her hometown lived. Seoul housewives did kimjang in early November. When the onset of winter (‘Ipdong’) got very close, six women, close neighbors who made daily visits to each other’s houses, made winter kimchi. When anyone brought up the subject of kimjang and who would do it first, the decisions were made. One kimjang takes 3 days per household. On October 25, a ‘kimjang bonus’ was given to them by her husband’s company. Her husband dug up the ground to bury kimchi jars. In 1960, she bought a lot of kimjang

27 Gyeonggi Folk Culture Journal IV, Clothing, Foods and Housing, Gyeonggi Museum, p336
materials at a nearby kimjang market, 200 heads of cabbage, and 150 radishes. Salted cabbages taken out from salty water and rinsed clean. It was hard work to do it alone. A friend in the neighborhood came and helped. Real kimchi making, rubbing seasonings on the cabbage leaves and putting fillings in between cabbage leaves, is done on the third day. Six friends came to Bae’s house and helped. All together including Bae’s families, more than 10 people worked together...  

The above tells us the kimjang culture of the urban middle class people in Seoul is significantly different from the farming regions. The amount of kimjang was big and they used a lot of seasonings. Different from radish-based kimjang of the farming regions, cabbage was the main ingredient for Seoul people. As cabbage kimchi is more labor intensive, urban people needed exchange of labor, it was organized in a region of the vicinity, and it served as a forum not only for labor exchanges but for exchanging friendships. Today, such community is hardly found in big cities, however, family labor-based kimjang community still exists. Despite the difficulty of making big amounts of kimjang in the big cities, winter kimchi making kimjang being done with the help of neighbors and among family members reflects the status of kimchi in the Korean foods and cultural significance attached to it. For this reason, despite the social changes of urbanization and the nuclear family, kimjang continues.

**New technology and Kimjang**

Emergence of new technology is a key to modernization. Until the early part of the 1960s, the means of kimjang kimchi preservation was to bury jars in the ground. As shown in the case of Ms. Bae, digging up the ground to bury jars was the man’s responsibility in addition to shouldering the financial obligation to pay for kimjang expenses. Kimchi in buried jars stays good until the lunar new year which usually falls about one month later than the solar calendar new year.

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There are three ways to keep winter kimchi jars. (1) Dig up the ground and put jars in the ground and cover them with a straw mat; (2) build a hut made of straw or thick cloth; (3) build an annexed warehouse. Author of the above study Ju said, ways to keep kimchi is closely related to January temperature lines. The regions with average January temperatures of -4° ~ 0° keep kimchi in a simple hut, but regions with lower temperature keep kimchi indoors in an annexed building.

Park Chae-lin said the same in her study on the Report on the Studies of Korean Villages a result of multiple research conducted by the Japanese General Government on 16 Korean villages and major households from 1920 to 1921. According to the report, regions north of Seoul like Hwanghae-do, Gaeseong, Pyeongan-do and Hamgyeong-do kept kimchi indoors but outside or in a hut in Jeolla-do province, which is south of Seoul.

To keep kimjang kimchi underground is a technique old enough to get mentioned in Yi Gyu-bo’s 『Gapo Yukyeong』 (‘song of six garden vegetables’). There are many terms in the Korean language referring to the practice. Jo Chan-han (1572~1631, public official of Joseon Kingdom) in his poem titled ‘Chongye Chuil jeuksa’ (‘things to do in autumn in a countryside village’) wrote of making turnip kimchi for winter, Kim Su-jung (1624~1701, public official, Joseon Kingdom) in his poem also wrote kimjang is a must work for every household for winter. In the October chapter of the 『Dongguk Sesigi』 (‘book on seasonal customs of Korea’) published in 1849, kimjang customs are mentioned as a custom being practiced in Seoul.

“It is a Seoul custom to make kimchi with radish, cabbage, garlic, pepper, and salt and keep it in jars. To make soy sauce in summer and kimjang in winter are important preparations to live for a year.”

31 C.L. Park, Roots of Joseon Dynasty Kimchi, p295  
32 『Dongguk sesigi』(‘Seasonal customs of the East Country’), annotated by S.M. Chung 2009, p175.
“Small radish water kimchi is called Dongchimi... Prepare clear salted shrimp sauce, mix radish, cabbage, garlic, ginger, pepper, sea staghorn, abalone, top shell, oyster, croaker, and salt in it, put the mixture in jars, and keep it over winter will make spicy delicious side dish.”  

According to Park Chae-lin’s study on Joseon period anthologies, kimchi and kimjang are much mentioned in many poems, mostly beautified version. After the advancements of western civilization were introduced to Korea, kimchi came to be disparaged as an eccentric smelly food and in numerous stories the ‘kimchi smell’ was almost became synonymous with an uncivilized Korean. Kimchi and kimjang culture, however, survived such unfavorable evaluations and is still going strong. The root strength may lie in Korean’s pride of kimchi as an upper class food and their love of kimchi as expressed in old literature.

Kimchi was a royal cuisine and also a food for the poor. Kimchi was an everyday side dish at Court. King Jeongjo’s gruel and breakfast were accompanied by radish kimchi, in the 1800s nabak kimchi (sliced radish water kimchi ) or dongchimi (radish water kimchi) was put on the early morning menu. The royal table manners dictated that the king and queen pick up the spoon and have dongchimi soup first.  

For urban squatters in Seoul, the lowest class people living in dugout huts during the Japanese colonial period, kimchi was their everyday food. According to studies on the urban squatters done by medical school student of the Keijo Imperial University (currently Seoul National University) in 1940, the upper level urban squatters’ menu was soup, seasoned vegetable, kimchi, chili pepper paste; middle level squatter’s kimchi, soup; and lower level squatter’s kimchi and soy sauce.  

In the 20th century, as Confucian rituals lost their once privileged
status, kimchi as a sacred food presented on the memorial service table followed a similar fate; however, it remained an important food in Confucius rituals that for long dictated Joseon scholars’ thoughts and acts. The Confucian national rituals introduced to Korea during King Seongjong of Goryeo were combined with the kimchi culture that existed on the Korean peninsula. During the reign of King Sejong, it was accommodated as food for national rituals.

Of Jeo (᧑, meaning ‘kimchi’) was an established ritual food in China, and after much discussion was made among people of the Joseon ruling class, it was decided, according to Park Chae-lin in the 17th century, kimchi would replace it. The proof of it is the term ‘Jeo’ increasingly being used since the 17th century. With the expansion of Confucian style ceremonies, kimchi came to have an identity connecting Confucian ritual foods to people’s everyday food, its status thus solidified among Korean foods.36

In the 1908’s, kimchi which solidified its status in the ranks of Korean food as a must food in both everyday life and ritual services and a mandatory element of all Korean food set menus, came to enjoy the benefit of refrigeration technology. The emergence of the kimchi refrigerator has a lot to do with modern residential space; namely, the apartment. Great numbers of Koreans who used to live in traditional houses moved into complex residential spaces like apartments and villas where no extra storage space was possible. The kimchi fridge was a solution to the problem. Kimchi refrigeration was developed in the mid 1980s, and while a huge number of apartments were built in the 1990s, kimchi fridge sale witnessed rapid increase in the late 1990s showing the relationship between kimchi and modern residential space.37

Despite residential changes and compressed modernization, kimchi and kimjang culture continues to remain an essential element in the

36 C.L. Park, ‘Roots of Joseon Dynasty Kimchi’, pp 152-173
37 According to the article “At last, apartment republic” carried in a daily newspaper ‘Hangyeore’, August 10, 1999; As of 1999, apartments comprise more than 50% of the entire housing in Korea.
everyday life of Koreans, which finds strength in tradition. Kimchi and kimjang culture stand for a traditional culture fixed in people’s everyday life. Even Eric Hobsbawn who advocated ‘invented tradition’ did not doubt of the existence of real and true tradition. Despite the attempted enlightenment rationalism in Korea that went through post-colonization, the real and true tradition of kimchi and kimjang culture has not been weakened. In other words, kimchi and kimjang culture are examples proving traditional value-based rationalism is stronger than enlightenment rationalism.

Conclusion

Kimchi and kimjang culture was considered insubstantial to be respected as part of the splendid Korean traditional culture and it was not included in the list of cultural heritage of Korea. Many scholars believing in enlightenment might have anticipated an earlier disappearance of kimchi and kimjang culture from the Korean culture and the vacancy left behind would have been replaced by convenient and ‘hygienic’ western foods. Their forecast proved to be wrong. Differing from what the enlightenment scholars expected, kimchi and kimjang culture have its firmly established status in the traditional Korean foods, even given a sacred status in ceremonial rituals, and so would not easily give way to modernization. This article tried to explain the continuity of a cultural asset based on cultural realism. I believed it possible through discussions on kimchi and kimjang culture to prove the continuity of a tradition, and I think this article achieved that purpose. All cultural phenomena changes; however, there are unchanging cultural phenomena for certain. A certain culture can be invented, though even in the invented culture there is a continuing aspect. ‘All cultural phenomena changes’ is an obvious fundamental principle, but it is also certain in this cultural principle that all cultural phenomena has a tendency to persist.
I believe various discussions thus far emphasizing the changeability of culture are not piggybacking the cultural imperialism interlocked with the globalization of financial capital. I believe it is rather from an attempt to disturb Korean culture. It is never desirable that discussions on culture run in the direction denying the cultural tradition of Korea. As a scholar who experienced colonization, I tried to prove the continuity of a tradition based on realism. It is my hope that my folk culture theory be continuously discussed as food for thought in academic circles.
Kimchi and Kimjang Culture
Economic significance of the changes in Kimchi recipes

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Whole Cabbage Kimchi-Reverse engineering

How much is it to buy one head of cabbage kimchi? Famous brand packed kimchi being sold at hyper marts is W16,900 ~18,400, which means 8,000 ~ 9000 won a kg. A less famous brand ordered through the internet is cheaper; and homemade is even less, roughly 8,000 ~ 9000 won per kg tops.

How much would it have cost to make one head of kimchi by today’s standards back in the mid 16th century, before the Imjin Wars (Japanese Invasion into Korea, 1592~ 1598), when king Seonjo was in power. A direct comparison is not possible because most of the ingredients used for today’s cabbage kimchi were not available in those days. But assuming similar ingredients were available, how much would it have cost?

Main ingredients written on the packed kimchi being sold at then hyper mart are salted cabbage, radish, garlic, red pepper, anchovy sauce, chives (or mustard leaf), shrimp sauce, green onion, onion, and ginger. Cabbage kimchi is priced for the cabbage plus those ingredients.

First, let’s take a look at salted cabbage. By the mid Joseon period, today’s full plump cabbage with a head didn’t exist yet. To make kimchi, one used either top quality Korean cabbage or imported
Chinese cabbage, then the best cabbage available. There is no means to know the price of the imported cabbage from China.

One reference would be the record in "Buyeon ilgi" (‘a travel journal to China’, author unknown, 1828) “… wanted to get the seed of cabbage. It is said 4 nyang Chinese money per one doe. I ran out of money then, and couldn’t take them home.”

How much was 4 nyang? As China didn’t have a unified currency then, it is hard to guess based on this one line in the book. But given that "Hong Lou Meng" (‘Dream of the Red Chamber’, a masterpiece Chinese novel) published in 1791, about 30 years before the travel journal, says a 20 silver coin is about equal to one year’s living expense for servant. So if it means silver coin 4 nyang, then the price of 1 doe of cabbage seeds was the equivalent of 20% of a servants annual expenses. Of course, it is not known if 4 nyang during the Qing Dynasty mentioned in "Buyeon ilgi" had the same value of silver 4 nyang in “Dream of the Red Chamber.”

Even if the Chinese money in the travel journal were coin, not silver coin, the one sentence seems to suggest the price for one doe (Korean measurement unit, usually one doe equals 1.8 l) of cabbage seed must not be a small amount. When the seed price grew to that much by the early 19th century, cabbage prices must have been higher, and by the time of King Seonjo, the cabbage prices would have been even higher. By King Seonjo, red pepper powder was still not known. Presuming other spices such as black pepper or Chinese pepper were used to give a spicy taste to kimchi, what would that have cost? The assumption of using black pepper or Chinese pepper comes from knowing that wealthy people ate vegetables with spices sprinkled over them even before the mid Joseon period.

It is common knowledge that the price of black pepper was so high that the Age of Exploration began because of it. Then, what was the price of black pepper in Korea?

"The Annals of King Seongjong" (1469-1494) dated April 9, 1486 writes “Magnolia bark, gardenia (cape jasmine), and black pepper that
the Japanese presented to the king are essential for national use; however, they are very expensive and cost a lot for the country.”

When the Japanese envoy Yashuhiro (橘康光) came to Korea, right before the Imjin Wars (1592-1598), the Protocol Board offered a party for him. According to “Yeolyeo sil gisul” (‘Glowing -Goosefoot Room Records’, extracts from memorials, diaries, letters, biographies, and anecdote collections compiled by Yi Geung-ik 1736~ 1806) when Yasuhiro dropped black peppers on the floor, the female entertainers went crazy picking up them. Seeing this, Yasuhiro said to the translator “I am telling you, your country will perish. Discipline is lost.” While it is true the scene is telling evidence of no discipline, it explains how expensive black pepper was and how precious.

How expensive was black pepper during the Joseon period? No direct reference existed before the mid Joseon period, and it is not possible to make a well-founded guess of black pepper prices other than a vague supposition that ‘it was very expensive’. But the price of black pepper by the late Joseon period is possible to know thanks to “Mangi yeoram” (‘digest for governing’, a collection of references of finance, military, and land prepared for king’s ready reference) which was published in 1808 (late Joseon period), and has some information that can be referenced upon to suggest a plausible price.

The book says that one mal (about 20 l) of black pepper is 5 silver nyang. Considering as of 1807 that one silver coin (nyang) was worth 3 copper coins, and one straw bag of rice was 5 copper coins, then money for one mal of black pepper could buy 3 straw bags of rice. In other words, it was three times more expensive than rice.

It can safely be assumed that around the time of King Seonjo, about 200 years earlier “Mangi yeoram”, black pepper to have been far more expensive. Chinese pepper was used in place of black pepper, but still, any kind of pepper must have been pricey.
How much would it have cost to make kimchi with fish sauce in the mid Joseon period? These days, shrimp sauce and anchovy sauce are both used in most kimchis. Salted fish is presumed very expensive before the mid Joseon period. It was used only for special foods. Salted red-colored shrimp and salted white shrimp were very special local products that they were sent to the Chinese king as an offering. Using salted fish for kimchi became a common practice by the 19th century; prior to that period, salted-fermented fish was not readily available.

Seungjeongwon Ilgi (‘the Diaries of the Royal Secretariat’) wrote of the period of King Jeongjo “fish and salt are no different from main staple grains. The expense for the side dish using fish and salt is ten times the price of rice, minimum 4-5 times. Even the poor households, their expense for fish and salt, was as much as for rice.” Given fish and salt, and the ingredients for salted fish was that much, anyone could easily guess that fish sauce prices must have been very high.

Anchovy sauce came to be used for kimchi from as late as the 1930s in Seoul. Dong-A Ilbo, one of the four daily newspapers in Korea, carried an article on November 13, 1934 about the use of anchovy sauce. ‘Thus far, salted-fermented croaker and salted shrimp where used for kimchi, but the famous Jeolla-do province anchovy sauce it has recently been found better than croaker sauce, and anchovy sauce use keeps increasing year after year.’

Exempting the expenses for other ingredients of radish, garlic, green onion, onion, ginger and other seasonings, in mid Joseon period, to make whole cabbage kimchi, that can be purchased for 8,000~9,000 won per kg today at the hyper marts, would have amounted to huge expenses—almost beyond imagination. It would come to around 900,000 won per kg maximum:100 times that of today’s or a minimum 90,000 won, which is ten times more expensive. In other words, today’s kimchi with fish sauce would have been so expensive in the mid Joseon period that even the king would hardly have been able to afford it.

Time travel back to ‘500 years ago kimchi’ to review the economic
significance of changes made to kimchi through reverse engineering. How has kimchi evolved into its current variations? Today’s kimchi, now everyday food for everyone, is the result of persistent efforts to make the best food available for as many people as possible. Today’s kimchi contains all the best ingredients that were not available in the past, and is a result of popularization of kimchi ingredients which were once expensive beyond anyone’s reach.

The changes in kimchi recipe present an important topic for an analysis from an economic viewpoint. 500 years ago, even the man of power, or the man of wealth could hardly afford the cabbage kimchi. People made kimchi with whatever ingredients available in terms of economy, region, and season. This is why kimchi recipes vary, using the very same whole cabbage kimchi, respective of social class, region, and household.

For example, light not salty Seoul kimchi, deep-taste and spicy Jeolla-do province kimchi using a lot of fish sauce are the results of cultural, climatic, and regional differences as well as economic strength with regard to the supply of ingredients.

While the evolution of kimchi can be reviewed from various perspectives of culture, nutrition, and cooking, an analysis from an economic perspective can amply reveal a realistic picture of its development.

What combination of economic elements has made today’s whole cabbage kimchi?

Cabbage, a journey from gold vegetable to cabbage Kimchi

There are various kinds of kimchi. Janggajji, radish put in bean paste or soaked in salt water, is also a kind of kimchi. Seo Geo-jeong, a well-known writer of early Joseon period wrote “Radish tops, radish, lettuce, water parsley, taro mixed with condiments make kimchi; if you boil
them, you can make it all into a hot soup.”
According to social status and economic power, people ate various kinds of kimchi. Of those, cabbage kimchi was the most precious one, from the early to late Joseon period, because cabbage, its basic ingredient, was the most expensive vegetable that couldn’t be bought with small money. Cabbage was expensive, so it was natural that cabbage kimchi was priced high.

Cabbage is believed first introduced to Korea during the Goryeo period. The assumption is based on the appearance of the character ‘sung’ (抡) meaning cabbage in the 『Hyanggyak gugeupbang』 (‘folk medicine emergency remedies’, oldest surviving medical text) published in 23rd year (1236) of King Gojong of Goryeo. Considering 『Hyanggyak gugeupbang』 is a medical book, cabbage is believed to have been used for medicinal purposes. In China, where cabbage originates, it is believed that by around the Sung period (corresponding to Goryeo in Korea) cabbage developed into today’s variety through breed improvement. In this regard, cabbage at the time of the medical book was for medicinal purpose, not for food. Cabbage appeared on Korean dining tables in the early Joseon period. In the poems of Seo Geo-jeong during King Seongjong, cabbages appear.

I thanked Ahn Yu-mun for the cabbage he sent
Autumn cabbage is excellent
It is as tasty as the luxury cuisine of meat and rice
There is no need anyone boasts Oksamgaeng (taro gruel)
No need to have a taste of Keumjahoe (raw fish slices with sauce)
A soup made of cabbage suits my taste
You may eat it as a snack with alcoholic beverage; it is filling.
Eating meat is not my business
I cherish the fragrant vegetable.
Seo Geo-jeong wrote a poem thanking Gang Jin-san who sent him 17 kinds of Chinese vegetables including cabbage. Judging from the fact that Seo was happy over receiving cabbage seeds, it is very likely that cabbage was not a common vegetable yet.

According to various references of the past, regardless of varieties, cabbage was not for everyone until the early Joseon. Then, how could the pricey vegetable became a main ingredient of kimchi defeating all other inexpensive vegetables? How did it become today’s cabbage kimchi that all Koreans enjoy?

Reviewing the process by which the once expensive cabbage for only the privileged few became a main ingredient of kimchi, that is popular among all the people, will tell us some details of how the economy of Joseon influenced the evolution of kimchi. Breed improvement, expansion of seed distribution, and cabbage growing area expansion were the main reasons that made cabbage an everyday vegetable. But why the cultivation area expansion?

Though it is not directly related to Korean kimchi, a reason is found in 『Sushi shoulue 素食說略』(‘An introduction to vegetables’) by Xue Bao chen (薛寶辰) who was a member of Hanlin Academy (National Academy, Imperial Academy China) in the late Qing period. In the book, Xue Bao chen wrote of about 170 kinds of vegetables; ‘sung 茏’ refers to white vegetable, it is the king of all vegetables and is beyond comparison with other vegetables.

Both in Korea and in China, cabbage was considered the king of vegetables, very tasty and most expensive. Why, over the years, the expensive cabbage became a popular vegetable for the public was because cabbage was tasty equal to ‘the luxury cuisine of meat and rice’. From the consumer side, cabbage was a tasty and precious vegetable, making the demand for it to continue to increase. From the producer’s side, the expensive vegetable cabbage was an item of good
profit and they aggressively increased the cabbage supply. In the process of consumers wanting to buy expensive high class cabbage cheaper, producers pushing to sell more, bigger quantity of cabbages were made available, which in the end made cabbage a vegetable for ordinary people, and made kimchi into a representative side dish of Korea.

Who ate cabbage during Joseon period? How many people could afford to it? Cabbage consumption group and consumption amount can be presumed from the cabbage cultivation areas mentioned in various historical documents. "The Annals of Sejong, (March 27 in the 12th year of his reign) has a record of cabbage cultivating area as follows.

“Gyeonggi-do province villages were asked to provide edible mountain greens and seasoned bracken from March 1 to April 15, and cabbage from April to May. They were presented to the Munsojeon (the shrine of Queen Sinui: queen of Taejo, the founder of the Joseon Kingdom. She gave birth to 4 sons, one of the sons later became King Sejong the Great) and Gwanghyojeon (‘broad filial piety house’, soul shrine of queen Wongyeong, wife of Taejong, 3rd king of the Joseon Kingdom) in the morning and in the evening every day. …”

Munsojeon is the shrine of Queen Sinui, wife of Taejo, the founder of the Joseon Kingdom, Gwanghyojeon is the soul shrine (a tablet of the deceased is kept at this shrine from after the funeral until formally enshrined). Cabbage or cabbage kimchi was presented on the royal memorial services, Gyeonggi-do villages supplied cabbage for the services.

Which villages in Gyeonggi-do province grew cabbage? Considering the size of Hanyang (old name of Seoul), its population, how cabbage seeds were brought to Korea, it is not likely cabbage cultivation area was extensive in Gyeonggi-do province.
According to historical references, it is believed cabbage cultivation was done in limited areas outside the four gates of Seoul; in particular, around the Hullyeonwon (‘training center’) near Dongdaemun (‘East Gate”). Given the price of cabbage seeds at the time of King Sejong, cabbage must have been only for the royal court or a limited few of the ruling class.

『Yongjaechonghwado』, a collection of essays of Seong Hyeon (Joseon scholar, 1439~1504) published in 1525, about 100 years after 『Annal of Sejong』 writes “all vegetable and fruits are planted on the soil respectively suited to each. Turnip, radish, and cabbage are planted in Wangsip-ri, outside the East Gate.”

In Vol.3 『Hanseong-bu』 (Seoul) of the 『Sinjeung Dongguk yeoji seungnam』 (Augmented Survey of the Geography of Korea) published around similar period also writes “Wangsip-ri plain is about 5 li (about 2 km) outside the East Gate. People living there grow radish, cabbage and other vegetables and make a living out of it.”

In the 『Haedongjapnok』 (a kind of people dictionary) by Gwon Byeol (Joseon scholar) which was published in 1670, about 150 years after the former two books has it “Korean people call ‘Chinese sung chae’ cabbage. People in Hanyang grow it outside the walls and make a profit from it.” In short, from around 1430 when King Sejong was in reign to 1670, about 240 years period, cabbage growing area expanded from somewhere near the East Gate, to Wangsip-ri, and to villages of Gyeonggi-do province, in the suburbs of Hangyang. The expansion of the cabbage growing area was because it was a profitable item. It was not for farmers’ self-sufficiency of food but to supply them to the royal court and the upper class people inside the capital city.

In the early 19th century, about 150 years later, the cabbage growing area near Hanyang went through big changes again.

Jeong Yak-yong’s 『Gyeongse yupyo』 (‘Design for good government’) has “most of the land outside the capital is green farms growing water parsley and cabbage. Most of the dry fields outside the capital were turned into water parsley and cabbage growing fields because they were
profitable vegetables.”

Jeong Yak-yong, in his poem 「Janggi nongga」 (a farmer’s song sung in Janggi-myeon, present site of Pohang city,) said ‘I took half of the yard and planted cabbages in it. Bugs gnawed into cabbage leaves making holes all over. I need to learn from the people growing them near the Hullyeondae (‘training center’); then I may see plantain- like cabbage leaves.’

Given what Jeong Yak-yong wrote in his Gyeongse yupyo and verses, it can be said there were large cabbage growing fields around Hanyang, Jeong himself planted cabbage on half of his house yard, which means by then cabbage was no longer only for the wealthy and the upper class but for large numbers of Hanyang people. Increased demand for cabbage and big profits from cabbage sales encouraged farmers to grow more parsley and cabbage, and this resulted in expanded water parsley and cabbage growing fields.

From the late 19th to early 20th centuries, the cabbage field expanded further. According to Haje Ilgi (‘diary of Haje’) written by Ji Gyu-sik who supplied all kinds of ceramic wares to the royal court and government offices for about 20 years from the 28th year of King Gojong to 1911, there were extensive cabbage growing fields in today’s Gwangju, Gyeonggi-do province. Being a craftsman, he also ran an intermediary wholesale business on the side and wrote about a large quantity delivery of cabbage for kimjang. It is believed by this time, that cabbage kimchi established itself as everyone’s and a representative kimchi.

Cabbage fields around Seoul grew continuously from the early Joseon to late Joseon periods. An article in the Dong A Ilbo, November 9 1923, writes that the major cabbage suppliers for Seoul are Bangadari, Hullyeonwon, Kuri, and Seommal; other than those, Gaeseong cabbage was famous as good quality cabbage. As Jeong Yak-yong pointed out, cabbage fields were formed all around Seoul, which indicated increased demand for cabbage.
In addition, 1907 Gyeongseong-gun eupji (‘town gazette’), Hamgyeong-do province (northernmost province of Korea) also has ‘cabbage is being grown in Gyeongseong’. While Gyeongseong is a remote area even in Hamgyeong-do, the local history book says ‘cabbage is from the seed from afar’ suggesting that by then, cabbage cultivation was nationwide.

An article in the newspaper in 1934 tells us of how the demand for cabbage kimchi increased.

“Kimchi... has occupied the king’s throne of the side dishes. Whole kimchi is very popular in all regions, from up north of Gyeongseong down to the southern regions……

November 9, 1937, Dong A Ilbo

In summary, during the 500 years of the Joseon Kingdom, cabbage cultivation spread from near the East Gate, to Wangsip-ri, Guri, Seommal, Bangadari, Ddeukseom; then, as far as Gaeseong, Gwangju city; and in the 20th century, to Gyeongseong, Hamgyeong-do province. Such expansion of cabbage cultivation area signified that the cabbage once only for the royal court, became available to the ruling class, to the upper class, the rich, then to the ordinary people in Seoul, and finally to all people nationwide. In other words, through continued demand increase, cabbage which in the early Joseon period was only for the chosen few, became an ordinary people’s vegetable by the late Joseon period.

Why was the price of cabbage decreased to the point that ordinary people could afford to make cabbage kimchi?

It may sound paradoxical, but it was because cabbage was tasty, very expensive, and a high class vegetable. As ‘tasty vegetable’ means a big potentiality for consumption increase and stable demand, and ‘expensive vegetable’ meant bigger profits for the seller, both farmers and traders pursued mass production and mass sales. This market drive resulted in the increase both in demand and supply up to the point the
law of supply and demand works, and it ultimately led to cabbage prices dropping to the level that ordinary people could afford to make kimchi out of it.

What was the price of cabbage in early Joseon period? There is no record to know of it but considering, as previously mentioned, "Annals of Sejong" writes cabbage was used for sacrificial rites and Seo Geo-jeong said in his poem that cabbage was no less than luxury cuisine of meat and rice, so cabbage must have been very expensive, especially, good quality cabbage imported from China. Seo Geo-jeong wrote in his poem “I thank Gang Jin-san that he sent me 17 kinds of Chinese vegetable seeds.” Importation of cabbage from China is believed continued till the mid Joseon period. "Annals of Jungjong" for the year 1533 has a record of a person doing private trading importing hog millet, millet, bean, and vegetable seeds from China in exchange for ceramic ware and other miscellany from Korea.

It is certain cabbage was a rare vegetable. Cabbage seeds from China were expensive, naturally pushing up the cabbage price. Because cabbage was such an expensive vegetable, consumption was limited, cultivation area was small, and commercial profits from cabbage growing couldn’t be large. There is no record of anyone who made money from cabbage cultivation.

But by the mid Joseon period, the record saying people made money from growing cabbage begins to appear often. Gwwon Byeol’s "Haedongjapnok 海東雜錄 (a kind of people’s dictionary, 1074 people are included in it) says “In Hanyang, people make a profit from growing cabbage outside the castle.” As written in the previously mentioned "Yongjaechonghwa" and "Donggukyeojisungnam", commercial profit from cabbage cultivation was not small due to increased demand for cabbage.

Then, how much profit did people make from growing cabbages? Jeong Yak-yong’s "Gyeongseyupyo" (‘Design for good government’) writes “Inside and outside Seoul and in big cities, people made several tens of thousand jeon (old currency of Korea) from selling green onion, garlic,
cabbage, cucumber from 10 myo (about 1 acre) of dry fields. Tobacco farm of Seodo, hemp field of Bukdo, ramie fabric of Hansan, ginger of Jeonju, sweet potato of Gangjin, foxglove of Hwangju produce 10 times the profit that would have been possible from the best rice paddies. How much is ‘tens of several thousand jeon’ in today’s currency? It is hard to calculate due to differences in monetary unit and measurement unit in the past; however, from the expression ‘tens of thousands jeon from 10 myo land, and local specialties make 10 times more than from the best rice paddies’, it can be presumed the profits from cabbage growing were very large and such high profitability facilitated the expansion of cabbage growing areas at a rapid speed, which in turn paved the way for popularization of expensive vegetables. By the late 19th and early 20th centuries, cabbage supply increased and its price dropped to the point that ordinary people could eat cabbage kimchi. Ji Gyu-sik’s "Hajaellgi" from 1891 ~ 1911 wrote of cabbage price. As his was an intermediary wholesaler’s price, there would be differences from the retail price, and big fluctuations of cabbage price from year to year had something to do with the crop situation. His diary on September 20, 1893 lists the price of one cabbage; one load or 100 heads of cabbage at 20 nyang, 2 jeon a head. On October 7, 1894, 9 loads of cabbage were 100 nyang, 1.2 jeon per head. How much is 1.1 jeon ~ 2 jeon per head in today’s currency? "Hajaellgi" says a bowl of cold noodle is 1 nyang, 1 mal (20 ㎡) of rice about 50 nyang. Comparing them to today’s cabbage price, about 2~4,000 won a head, tells us it is about similar or a little higher. In other words, cabbage price dropped to the level that everyone could afford it. Popularization of an expensive and best kimchi ingredient has come to fruition.
Red Pepper, the best alternative spice

Adding condiments is to make tasty kimchi. Of various condiments of garlic, ginger and others, red pepper is basic for today’s kimchi. Red pepper is said introduced to Korea during the Imjin Wars (Japanese invasion of Korea, 1592~1598) and it began being used for kimchi in the mid 18th century, after the publication of Jeungbo sallim gyeongje (a revised book on agriculture, published in 1766). How did people eat vegetables when red pepper was not available in Korea? There might be two ways to eat tasty vegetables. First, to select vegetables that have a spicy taste to them, a typical example would be mustard kimchi. Second is to add spices such as black pepper, Chinese pepper, garlic, ginger and others. Both must have been costly, as condiments were expensive in the past. Before the mid Joseon period, it is believed a demand was high for mustard leaf kimchi for its spicy taste. Various old references mentioned mustard leaf kimchi. ‘A Song of Mustard Kimchi’ by Yu Sun (1441~1517) who was an official at the Royal Secretariat during King Seongjong wrote as follows.

...every now and then at the market I buy, together with grain, mustard leaves that Buddhist monks pluck them as if catching fugitives and sell them at the market Chewing it raw, it is too spicy, Therefore blenched it in boiling water and made kimchi, At an instant it gives off beautiful fragrance Have one taste of it makes me knit my brows, Second chewing, tearful eyes. Its spicy and sweet taste Is better than cinnamon and ginger Mountain animals and fish in water All great dishes cannot be a comparison to it. ---"
Hwang Seom (1544-1616) who served as a minister in the court of King Seonjo also wrote a poem of the mustard leaf kimchi.

‘Mustard leaf is noted for its spicy and shivering taste
It grows well in the shade of cold valley
Mustard kimchi has purple color
and has a taste of black pepper and Korean angelica
Putting it in the mouth makes tearful eyes

- Sikam Seonsaeng munjip 2 (‘Sikam’s anthology’) Book 2

People’s preference for mustard leaf kimchi is shown in many old documents. From the previously mentioned Yu Sun’s poem, a guess of its economic value is possible. It wrote to the effect that ‘Buddhist monks in mountains pluck them as if catching runaways and sell them’ comparing mustard leaf picking to catching runaway slaves, suggesting the price of mustard leaves was high. In addition, it was the vegetable that can be bartered for grains, and this spicy leaf must have been an expensive ingredient for the dishes for those who could afford it.

Like the demand for black pepper when eating meat in the western world, demand for spices for vegetables is believed important in Korea before the mid Joseon period.

Sanga yorok (the oldest recipe book written by Jeon Sun-ui, royal physician, published in 1450) explaining cucumber recipe, mentions of spices; “Cut green cucumbers into about an inch size, blanche it lightly in boiling water. Mix it with Chinese pepper, ginger, and garlic. Put them in a jar and pour in boiled soy sauce. Let it stay one night, and then you can eat it.”

Gang Heui-maeng’s poem ‘Yangchobu’ (‘a song for plantain’) in the mid 15th century also writes of spices. “Cut a basketful of tender leaves of plantain, blanche it in water with the five tastes, take out and mix well with black pepper. It makes a light tasting dish better than lamb or well-cooked meat.”

Prior to the introduction of red pepper to Korea, black pepper, Chinese
pepper, ginger, and garlic were main the spices used for vegetable dishes. According to "Umsik dimibang proficiency in Korean on traditional Korean foods, ‘Dimibang’ refers to a king’s dining room. It is written by a woman of Andong Jang clan for her daughter-in-law and daughter. Published around 1670, it has 146 recipes), black pepper, akane, ginger, garlic, and perilla frutescent were used, according to "Sallim gyeongje" garlic, gaetner, cinnamon, Chinese pepper, citrus skin, and ginger.

Black pepper was dependent on importation, as it was in the western world, which ignited the era of exploration. Only a small amount was available and very expensive, and kimchi with spices was a luxury food perhaps even more than mustard leaf kimchi.

There might be many reasons of how red pepper came to be used as a condiment for kimchi since the mid 18th century. Red pepper emerged as an alternative condiment in place of expensive black pepper, mustard, and other expensive spices. The main reason, of course, was economic.

More than anything else, the names of red pepper when first used as a condiment for kimchi, would be a telling reference of why red pepper emerged an alternative to the expensive spices of black pepper, Chinese pepper, and mustard. The names ‘Japanese mustard’, ‘south barbarian’s plant’, and ‘beoncho’ (red pepper imported from abroad) tell us that red pepper was used as their alternative.

Red pepper became a complementary for strong spices like vinegar and others. First it was a condiment for the low class people, later an everyday condiment, which pushed up demand for it and expansion of cultivation followed.

From an economical viewpoint, red pepper having the taste and fragrance of other very expensive spices but priced incredibly low, was highly competitive to replace existing spices. From Kim Chang-up (1658-1721)’s article, we can guess how it was then.
“a barbarian brought this, small and insignificant looking, similar to ginger and cinnamon. Luckily, I had a chance to eat it and afterward, I grew away from the world of Shennong (a legendary emperor with a human body and a cow’s head. He taught agriculture and medicine making to people)”, meaning he grew detached from imported vegetables and spices.

Red pepper, having a taste similar to ginger and cinnamon but easy to get even in a countryside village, was bound to have an explosive increase in demand. In the 19th century, in the Ojuyeon munjang jeonsango, an encyclopedic book by Yi Gyu-gyeong (1788-1863), red pepper is found to have spread wide to the point of commercialization.

“I heard red pepper is being traded at the trading center in open ports; it makes quite a big profit.”

In addition, red pepper has a spicy pungent taste to it that Chinese pepper and black pepper do not, and it was more than complimentary. Better taste but priced lower than other spices’ beyond comparison inevitably creased the use of red pepper as an alternative in place of other expensive spices. Red pepper, once the most expensive spice, became the most widely popular.

Fish sauce Kimchi. a moving taste

How come fish sauce came to be used for kimchi? Kimchi with fish sauce comes to have a unique sour savory taste in the course of fermentation and a light refreshing taste due to carbon dioxide from the fermentation. Fish sauce also helps in the preservation for longer periods and the use of less salt. But main reason of using it was to make tasty kimchi.
Then, from when did Koreans began to use fish sauce in the kimchi? According to old documents, it can be traced back to King Sejong, in the 15th century of the early Joseon.

“I sent two crates of dry mackerel and two jars of cucumber kimchi made with salted shrimp to the temporary office to entertain Chinese envoys. Baekjeon wanted them to present as a tribute.”

Annals of Sejong, 8th year, June 16 -

The above cucumber kimchi refers to cucumber seokbakji (kimchi with radish, cabbage with various sea foods) made of young cucumber mixed with salted shrimp (or salted tiny shrimp). A Chinese envoy wanted to offer it to the emperor.

Fish sauce kimchi also appears in 16th century documents. During King Jujong, in “Cheokeon”，a man named Park Se-pyeong wrote to Yi Ja who was the mayor of Hanseong (old name of Seoul, capital city of Korea) “I am sending you cucumber seokbakji made of cucumber and salted shrimp. It is a very tasty kimchi; you will certainly like it.” He added an annotation that kimchi is also called ‘gamdongjeo’ (“moving kimchi”). Yi Ja wrote him back that the kimchi was especially delicious. Kimchi with salted fish is also found in 17th century documents. Yi An-nul (1571-1637), a public official during King Injo (the 16th king of Joseon, 1595-1649) left a poem on cucumber kimchi with salted shrimp.

“salt shrimp and young cucumber
Put them in a jar to its full
It is fortunate to rely on it autumn, winter, spring,
Now I have the treasure of both land and the waters
Here comes another one to my joy
Me being a shameless old man doesn’t stop wanting it”
As shown in the above 15, 16, and 17th century old references, kimchi with salted shrimp was rare in the early and mid Joseon period. Knowing fish sauce makes ‘kimchi that moves me jump for joy’, why not more fish sauce kimchi? Because fish sauce kimchi was rare.

Fish sauce was rare to the point that in the early Joseon, it was an item among the tributes to China, and Chinese envoys wanted it as a present for China. "Annals of Sejong" 8th year records ‘two jars of cucumber kimchi with salted shrimp were prepared because Chinese envoy Bai Yan wanted it. It might be for presenting as a tribute to the Chinese emperor, suggesting the cucumber kimchi with salted fish was a precious item to be presented to the emperor; or it might be that Bai Yan wanted it for himself under the pretense of a tribute to the Chinese emperor. This suspicion is because of Bai Yan was a Korean eunuch. Whether it was for the emperor or for himself, the record could be indirect proof that fish sauce kimchi was a very rare food then.

In the 11th year record of "Annal of King Sejong", “On May 2, the 4th year of the King Sejong’s reign, the Chinese emperor’s envoys Chang Seong, Yun Bong and others visited Korea and conveyed ‘the emperor’s request for sea foods to be used at the royal court.’ In humble obedience to the royal request, we have prepared choice sea foods and sent Gwondo (1710~ ?, Joseon public official) to Beijing to present the gifts to the emperor. The offering to the emperor included various salted fish: 6 containers of salted dace, 1 container of salted carp; 9 bottles of salted clam, 3 bottles of salted oyster, 4 bottles of salted hard clam, 3 bottles of salted trout, 7 bottles of salted shrimp, 4 bottles of salted tiny shrimp, 4 bottles of salted baby croakers, 2 bottles of salted mussel, which proves salted fish was a rare item.

While knowing that by adding salted fish to vegetables and have it fermented make tasty vegetables, not everyone could afford the fish sauce. Until the 18th century of the late Joseon period, fish sauce was a luxury item. Yi Deok-mu (1741~ 1799, ‘practical learning’ scholar’) who served as a librarian at the Gyujanggak (an imperial library) writes in his letter to Park Je-ga (1750~ 1805, Joseon ‘practical learning’
scholar) “I thought of your houses’ barbequed meat, Yu Duk-gong’s (1748-1807, Joseon scholar) salted shrimp soup, and Seo Yi-su’s kimchi with salted fish. How could all of you eat such luxury foods?”

Why was the salted fish rare? Poor fishing technology produced a small catch, and fishing was mostly done in rivers. A poor distribution system didn’t help either. ‘Limited distribution systems of salted fish’ is mentioned in Park Ji-won’s Yeolha Ilgi (Jehol Diary, a travelogue of a trip to China).

“Children in Yeongnam (south eastern part of Korea) do not know salted shrimp; people in Gwangdong (north eastern region of Korea) use salted haw in place of soy sauce; and Northwest people can’t discern persimmon from tangerine. Catfish and eels are used as fertilizer in the coastal regions: how come they are terribly expensive in Seoul?

The above is from Park’s diary where he asserts the need of the carts with wheels, which explicitly reveals Joseon had serious distribution problems. Yeongnam people don’t know of the salted shrimp that was being produced in the west coastal area and catfish and eels so common in a region to the point they were used as fertilizer, but the fact was not known in other regions and they were very expensive. Fish sauce that was common in coastal villages might be a luxury ingredient in inland areas. Only the wealthy could afford kimchi with fish sauce.

How could the expensive fish sauce become a basic ingredient of kimchi as it is today? As fish sauce was an expensive ingredient as was cabbage, demand for it was constant. By the 18-19th centuries, or late Joseon period, changes in the fishery structure and distribution system occurred, facilitating fish sauce supply.

By the late Joseon period, the development in fishing technology, fishing net, and fishing boat activated coastal fishery and expanded fishery. Major fishing grounds were formed all over the country, and from them came croaker, pollack, herring and anchovy. The increased demand for fish brought the development of the fish distribution
system, which amounted to a simultaneous increase both in demand and supply for fish sauce.

The early 19th century witnessed a big fish catch increase, particularly in anchovy and croaker that were favorite ingredients of fish sauce. Fish catch increases resulted in a reduced price and increased availability of fish sauce, and it is believed related to kimchi with fish sauce appearing a lot in the 18th and 19th century books on foods.

For example, very little anchovy was caught in the early Joseon period; however, the anchovy catch increased greatly in the early part of the 19th century. Yi Gyu-gyeong wrote in the Ojuyeon munjang jeonsango, an encyclopedic book, of a fishing net that is thrown, and a mountainous haul of anchovy caught. People ate anchovy raw, grilled, and dried. Dried anchovy was distributed nationwide, and there was no one who did not know about it.

Jeong Yak-jeon as well in his Jasan oebo (an atlas of fish in the waters of Heuksan-do island) wrote that anchovy was used to make soup, fish sauce, and dried anchovy was used as a condiment. Given what he wrote in his book, anchovy fish sauce was widely known in the 19th century when anchovy were caught in huge quantities.

The history of using croaker in fish sauce has much similarity with that of the anchovy. Jasan oebo says, a boat may meet a school of croaker, the catch being too huge that fishermen couldn’t load them all on the boat, and such available big quantities of croaker made more use of fish sauce.

Beside increased fish catches, establishment of a distribution system had a lot to do with increased use of fish sauce. Since the mid 18th century, there were more than 1,000 markets nationwide and the five day periodical market (five-day interval village market) came into being.

In the chapter Economy and Trading of Mangi yeoram (‘digest for governing’) published in 1808, there is information on the number of markets all over Korea; Gyeonggi-do province 102, Chungcheong-do 157, Gangwon-do 68, Hwanghae-do 82, Jeolla-do 214, Gyeongsang-do 276, Pyeongan-do 134, Hamgyeong-do 28; a total of 1,061.
Major markets were Gwangju Sapyeong market · Songpa market · Anseong downtown market · Gyoha Gongneung market in Gyeonggi-do province; Eunjin Ganggyeong market · Jiksan Deokpyeong market in Chungcheong-do; Jeonju market · Namwon market in Jeolla-do; Pyeongchang Daehwa market in Gangwon-do; Tosan Bicheon market · Hwangju market · Bongsan Eunpa market in Hwanghae-do; Changwon Masan port market in Gyeongsang-do; Bakcheon Jindu market in Yeongan-do; and Deokwon Wonsan market in Hamgyeong-do. Almost all markets were near ports, and it was natural that sea food trading was active in those markets. For example, Gwangju Sapyeong market that is no longer active, was by the Hangang river and which is currently Sinsa-dong in Gangnam-gu; Seoul and Songpa markets in Songpa-gu, Seoul were the trading centers of fish from Gyeongsang-do province and Gangwon-do ports.

Since the mid 18th century, demand for fish increased greatly, and through the network connecting over 1,000 markets organized to center on the 15 big markets nationwide, active trading of sea foods, salt, and salted fish continues taking place.

For example, Taengni ji (‘On selecting a village’) writes "In Seonggot-li, Gwangju is a port village of fish and salt, and merchant ships near the sea gather there a lot, as people there make a living by selling fish; and they are rich.” Seonggot-li described in Taengni ji is Ansan today. Croaker, white shrimp, freshwater shrimp, and large-eyed herring (a government organization in charge of supplying large -eyed herring to the royal court was stationed in Ansan) were caught a lot near its sea and it has many salt ponds. People in Ansan got rich from selling fish is believed proof that Ansan was a supply base of salted shrimp, salted croaker, and salted large-eyed herring to Hanyang (Seoul), Suwon and its surrounding regions.

In summary, until the mid Joseon period, kimchi with fish sauce was a luxury food, but since the late 18th century, a kimchi with fish sauce recipe was often found in old references. By the 19th century, kimchi with fish sauce became common. The progressive changes were due to
increased demand and supply for fish sauce following fish catch increases and the development of a distribution system. Fish sauce, once a luxury item like cabbage, became available for the general public, which led to the development of the kimchi we have today. Even a whole cabbage kimchi varies from region to region. From today’s viewpoint, it should be said “There were differences” because the regional differences of kimchi are gradually disappearing. There might be various elements dictating the regional difference of whole kimchi, but the key is condiments and fish sauce; in particular, fish sauce. Northern regions use salted shrimp, southern regions anchovy sauce. Why the difference?

In general, Jeolla-do and Gyeongsang-do provinces’ kimchi are saltier and spicier than those of Seoul and Gyeonggi. Northern regions tend to make bland and light kimchi to maintain the freshness of cabbage and suits their shorter summer and long winter. On the other hand, the southern region has higher temperatures, and they make salty and spicy kimchi to keep it from going sour or bad. Climate is said the element causing regional differences of cabbage kimchi. Was it an essential reason? Then, why does cabbage kimchi differ from region to region, by social class, and individual household?

The use of different fish sauce is presumed a reason for regional differences. Generally, regions north of Seoul and Gyeonggi-do use salted shrimp and salted croaker, while south of Seoul and Gyeonggi use anchovy, shrimp, and sword fish. But speaking in further detail, it should be said that each region uses fish sauce of their own local specialty. For example, Gangwon-do put in salted squid and salted pollack, while Chungcheong-do adds salted large-eyed herring and blenny.

As the fish catch increased from the late 18th century, fish trading became active following the development of markets which in turn expanded fish sauce supply. Still, fish sauce used for kimchi differs respective of regions. Why? Fish sauce as a commercial commodity and the limitation of the distribution system are believed the cause of the differences.
Salted fish production in a region was heavily influenced by the fish distribution system made available by the market development in the 19th century. For example, the salted shrimp produced in Seonggot-li of Ansan gathered in Ansan market and peddlers visit every corner of the mountain villages nearby carrying on their back the salted shrimp on an A-frame carrier. Thanks to the peddlers, mountain villages could have inexpensive fish sauce to make kimchi.

But due to the characteristics of fish sauce as a product and economic structure of the Joseon period, it was hard for fish sauce to be distributed all over the country. As Park Ji-won points out in his "Yeolha ilgi" (‘Jehol Diary’) “Children living in Gyeongsang -do province do not know of salted shrimp” was because of the regional economic structure, distribution system and the nature of the product concerned, and the differences are believed what brought about different kimchi recipes.

For example, most of the shrimp caught off the west coast was gathered at Ganggyeong port in Eunjin and sold nationwide from there. But even after a reasonable system of distribution was in place, Ganggyeong port’s salted shrimp remained unknown to Gyeongsang-do regions because its salted shrimp’s competitiveness fell short of anchovy sauce in terms of quality as well as in price. West coast shrimp could not make a reasonable profit in the Youngnam regions (east coast regions).
As a result, “Youngnam children do not know of salted shrimp” and salted anchovy and cutlass fish were used for kimchi instead of shrimp. Fish sauce is salted fish. In the old days, its production cost was high while yielding low profits. A poor distribution system was another reason for the failure of nationwide distribution of fish sauce. The 18th century practical learning scholar Yu Su-won’s book Useo (a book on social reform for wealthy nation and peace and order for the people) gives us a glimpse of the situation then.

“Peddlers with a load of products on horseback, visit local towns. Having no shops willing to buy their products, they had to visit one periodical market after another, even in deep mountain villages. How much could they sell, what profits could they make from selling a load on horseback, not to mention the hard work and travel expenses. It might happen that they suffer a total loss.…”

After all, anchovy sauce being used for kimchi in Seoul as late as the 1930s was because of economic reasons. Anchovy sauce then was used for ‘the famous Jeollado-province kimchi’. In the 1930s, when fish sauce production cost was reduced due to increased fish catches and lowered transportation expenses following the development of the railway system, the nationwide distribution of fish sauce was made possible.

It is generally said that the northern regions have cold weather and the kimchi there is bland and less spicy while in the southern regions, kimchi is made salty and spicy for warmer weather. However, the ‘known fact’ may well be put to question. There might be reasons other than weather.

In the early 20th century, Pyeongan-do and Hamgyeong-do provinces have less markets compared to other regions. According to the statistical yearbook of the Japanese General Government, the average number of markets in 100 km² space was South Gyeongsang-do province 1.16, South Jeolla 1.08, and South Chungchong 1.03, while South Pyeongan 0.59, North Pyeongan 0.22, South Hamgyeong 0.24, North
Hamgyeong 0.14. and North Hamgyeong’s market was one eighth of South Gyeongsang-do province’s. In other words, both demand and supply for kimchi ingredients of cabbage, fish sauce, red pepper powder and other condiments were small, and it was natural those ingredients were expensive. Beside climate, economy was a part reason for northern regions’ blend less spicy kimchi.

**Conclusion**

Cabbage kimchi is the result of the Korean ancestors’ efforts to have the best food. As the industrialization in the West enabled the production of good quality products for less cost, the era of mass production opened up. Continued efforts to supply once the most expensive kimchi ingredients of cabbage, condiments, and fish sauce at cheaper prices led to the kimchi we know today. The technical innovation of cabbage seed improvement, increased demand and supply for cabbage, expanded cultivation of red pepper as an alternative for expensive condiments, fish sauce made available for the general public due to fish catch increase and the development of fishing technology, all facilitated the development of cabbage kimchi. In the 19th century Joseon period, whole cabbage kimchi was developed. Kimchi ingredients’ market, production and distribution system, income level and other economic conditions made differences in kimchi respective of region, social class, and individual households. In short, one of the core elements for various kinds of kimchi was economy.
10

Food Chapters in the Encyclopedia and Food Ecology of the Joseon Dynasty.

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Preface

Kimchiology and Humanity Studies of Food

Radish and cabbage kimchis were such common foods in the 18th century Joseon Kingdom\(^1\) that even an old reference says “Everyone makes and thus knows how to make radish, cucumber, and cabbage kimchis; so it is not worth repeating the recipes.” \(^2\) It is included in the "Gosa sibijip 故事十二集" (‘Observation on things in 12 chapters’) published in 1787 (the 11th year of King Jeongjo’s reign) and compiled by Seo Myeong-eung who served as the first Jehak (a 3rd grade government official) of Kyujanggak (an imperial library). In the book, he mentions 7 kinds of kimchi; radish, cucumber, cabbage, chive, mountain leaf mustard, cattail, oyster kimchis and categorized them under the term ‘eomchae’ (‘soaked vegetables’).

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1. "Gosa sibijip 故事十二集" (Seo, Myeong-eung) Besides the three types of kimchi, the book has recipes for chive kimchi, mountain leaf mustard kimchi, cattail kimchi, and oyster kimchi: a total of 7 kinds.

2. This opinion of Seo Myeong-wung corresponds to what Park Chae-lin wrote in her book "Roots of Joseon dynasty kimchi", 2013. She wrote that the late 16th- early 17th centuries is the beginning period of Joseon style kimchi culture’, 18th century Kimchi culture expansion period, Seo Myeong-woong.
There is a movement, in response to the needs for the globalization of kimchi, to make the study of kimchi as an independent field of study under the title ‘kimchiology’, and serious studies on the old references of the Joseon period are believed a prerequisite in laying the foundation for the humanities studies of foods. In this regard, this article will review what Joseon people thought of foods, how the information on foods been complied and categorized.

In what category food is included, and how the government-led publications and private publications have dealt with it, is the beginning point of this article. For example, Bingheogak Yi’s (‘Binghoegak’ is Yi’s pen name ‘leaning on emptiness house’, b.1759~ d.1824)『Gyuhap chongseo』(published in 1809, 2nd year of King Sunjo) is composed of five chapters: foods and alcoholic beverages (jusai 酒食議); clothes and sewing; everyday life in the countryside; curing various illness; and folk beliefs. She doesn’t give a separate chapter to foods but puts foods and alcoholic beverages together in one chapter. Delving into various old references, it is found the food has been dealt with in different categories and in various ways.

This article will focus, centering on encyclopedic books of the Joseon period, on reviewing what foods are mentioned, how they are grouped, what was the traditional viewpoint of food ecology, and the classification of foods in relation to farming.

Thought on the Contents of Food Encyclopedia, the late Joseon period

The encyclopedic references encompass extensive categories of knowledge and they are arranged following varying classifications suited to the purpose of the publications. There are two structure types of encyclopedic references. One arranges those references that follow the traditional viewpoint of the three presences of Heaven, Earth and
Man, which are often found in the official documents; while the other structure of private references focused on society, economy, and culture & civilization, is arranged using various classifications depending on the individual author’s interests.

The former follows the composition of "Hanseo" (History of China) which set the standard structure of historical documents thereafter. "Hanseo" deals in politics, society, culture and civilization, national institution and social systems in ten categories of "yulyeokji" (calendar and weights & measures); 「yeakji」 (manners and music); 「hyeongbopji」 (punishment and laws); 「sikhwaji」 (industry and economy); 「gyosaji」 (ancestral rites); 「cheonmunji」 (astrology); 「ohaengji」 (natural disasters); 「jiriji」 (geography); 「guhyeokji」 (rivers and bridges); and 「yemunji」 (collection of documents). The latter follows the composition of "Tongjeon" (comprehensive history, published in 801) of Duyou (734~812) of Tang dynasty which is composed of 9 categories of 「sikhwajeon」 (food and economy); 「seongeojeon」 (civil service examinations); 「jikgwanjeon」 (changes of public offices); 「yejeon」 (manners); 「akjeon」 (music); 「byeongjeon」 (military); 「hyeongjeon」 (criminal laws); 「jugunjeon」 (administrative systems); and 「byeonbangjeon」 (neighboring countries of China) giving emphasis on society and economy. "Munhe on tonggo" (published in 1307) of Ma Duan lin (1254~1323) which was a huge influence on Joseon society, begins with agricultural economy 「jeonbugo」 (land system); 「jeonpyego」 (monetary system); 「hogugo」 (economically active population); 「jikyeokgo」 (public offices); 「jeonggakgo」 (monopoly system) and 「sijeokgo」 (market, commerce).

Most of the encyclopedias by Joseon scholars are compiled following one of the above two types of composition. I gave the term ‘encyclopedia with chapters’ to those publications of comprehensive knowledge written from the beginning based on certain classification systems, to differentiate them from other encyclopedic books that originally didn’t have chapters but were reorganized later on to have them. "Seonghosaseol" (‘essays of seongho’ published in 1760, an
encyclopedic book written by Yi Ik, an historically important master silhak scholar, 1681–1763) is a representative encyclopedia without organized chapters. The author Yi Ik (pen name Seongho) wrote on items whenever he could and his disciple Ahn Jeong-bok (1712–1791) reorganized it under five chapter headings: 「cheonji pyeon」('heaven and earth'); 「insa pyeon」('man and society'); 「gyeongsa pyeon」('classics and history'); 「manmul pyeon」('all things'); and 「simun pyeon」('collection of poems') which were then published under a different title: 「Seongho saseol yuseon」('rearranged seongho saseol'). The Korean translation of 『Seongho saseol』 by the Institute for the Translation of Korean Classics is based on the rearranged version.

The encyclopedias of the Joseon period have differing chapters from each other due to different interests of the authors. This article will review the composition of chapters of the encyclopedias, their respective chapter titles on foods and the descriptive style of each.

(1)『Jibongyuseol』('classified essays of Jibong', an encyclopedic collection of essays divided into topical sections in 25 books), which is considered the beginning of earnest efforts to arrange encyclopedias during the Joseon period, was completed in 1614 (King Gwanghae's 6th year of reign) by Yi Su-gwang (1563–1628), who visited Ming China as an envoy 4 times, before and after the Japanese Invasions of Korea, and was published in 1633 (King Injo's 11th year) by his sons Seong-gu and Min-gu together with 『Collections of Jibong』. It has 3435 items, including cheonmun (astronomy), siryeong (seasons), jaei (natural disasters), sinhyeong (body shape), eoneo (language), giye (technology and arts), gungsil (clothes), sikmul (foods), hoemok (flowers), and geumchung (animals and insects).
deals with foods in general, such as the Joseon people’s eating habits and the importance of the care of health and the use of medicines. It reads that the Chinese eat only cooked foods, and they think it odd of the Koreans eating raw fish. This chapter introduces Paljin (the Eight Precious Foods); Omi (the Five Tastes) which is from the Five Elements theory (wood, fire, soil, metal, and water which are said to be the sources of energy that cause the creation, extinction, and the movement of all); Surak, the processed milk of goats or sheep; and Jeho, a kind butter. <Ju> (alcoholic beverage) wrote on liquors and the importance of condiments; <Gok> (grains) on rice; all kinds of crops; the Five Grains: bean, sesame, and others; <Chae> (vegetable) on lettuce which cultivation began from the seeds brought during the Sui Dynasty of China; buckwheat, kelp, ginger, <Gwa> (fruit) on lotus-persimmon, tangerine and citrus from Jeju Island, chestnut, pine nut, date, pear, betel palm, and the famous Korean fruits: Geochang persimmon, Boeun date, Milyang chestnut, Chungju watermelon, Hoeyang pine nut, and the Anbyeon pear. <Medicine> deals with ginseng, Siberian Ginseng (ogapi), adlay, cnidium, perilla oil, ujeoncha tea (a kind of green tea made of tea leaves picked at around the time of Goku ‘grain rain’, one of the 24 seasonal divisions, which falls around April 20), quince, tobacco, peony, gall bladder of bear, detoxicant, and others. But ‘southern barbarian’s pepper’- also called ‘Japanese pepper’- is included in the <Mok> (tree) in Chapter 24 「Flowers and
Trees, turmeric, sunflower, curled mallow in <Cho> (plants). Therefore, anyone who wants to study the foods included in the Jibong yuseol needs to check both <Plants> and <Flowers and Trees>. In the explanatory notes, the author wrote “It is on a total of 3435 items. At first, I jot down anything that comes to my mind. But as it grew large in volume, I had to assorted them by category.” At odd times, he wrote on items referring to various sources; later on, classifying these items under subtitles, subtitles under upper level headings; to have incorporated a total of 3435 items which were classified into 185 parts under 25 sections in 20 books. Jibong yuseol is not a publication written based on planned structure of chapters.

On the other hand, Yuwon chongbo is the first classified encyclopedia compiled on planned chapters, and it is worth re-evaluation. Yuwon chongbo (47 volumes, 30 books) is an encyclopedia, a voluminous collection of scattered literature and documents due to Japanese invasions and Chinese invasions, published in 1643 by Kim Yuk (1580~1658, his pen name was Jamgok ‘immersed in the valley’) who got interested in advanced civilization during his trip to Ming China as a member of the ‘November envoy’ (regular envoy sent to China in November) in 1636. In the preface, Kim Yuk wrote ‘It is lamentable the books and documents of the archives were lost due to wars. Books were bought from China for dear amounts, but even that is no longer possible. Feeling an urgent need for literature and documents carrying information of the past, I began working on Yuwon chongbo that has summarized essences of several hundred books.” He made clear in the preface that the book is modeled after Samun ryuchi. “No book is better than ‘Samun ryuchi’ compiled by Chuk Mok of Sung China.” “This book is modeled entirely after that book.”

Final edition of Samun ryuchi (236 volumes) is a representative encyclopedia of the Sung and Yuan Dynasties, and has 1003 items under a total 74 sections, arranged in the order of ‘bu’ (section), mok (chapter), and ‘hang’ (item).
In late September of the 21st year of King Injo (1643), the huge volumes of『Yuwon chongbo』 was completed, 47 volume in total, it is mentioned in the preface that Jeolla province governor Nam Seon (1582~1654) helped the publication.

The classified encyclopedia『Yuwon chongbo』dealing with culture, civilization, national institutions and social systems, and others have been compiled on established structure. In line with the East Asiatic view of the world, and is organized in the three big categories in the order of ‘cheonji’ (heaven and earth), ‘insa’ (man), and ‘manmul’ (all creations). Under heaven and earth are 「cheondo mun」(astronomy); 「cheonsi mun」(time); 「jido mun」(geography); followed by the chapter of man such as 「jewang mun」(emperors and kings); 「gwanjik mun」(government offices); under which were put 「illyun mun」(social ethics) and 「insa mun」(personnel management). The ‘manmul pyeon’ (all creation), one of the three big categories, comes in the last part of the encyclopedia. It has 「pilmuk mun」(brush and inkstone); the
essential items for the man of knowledge; 「saein mun」 (The Royal seal and seals); 「jinbo mun」 (treasures); 「pobaek mun」 (clothes and hemp); 「giyong mun」 (everyday tools); and about foods and clothes in 「eumsik mun」 (foods); 「gwanbok mun」 (government officials’ clothes); 「migok mun」 (rice and grains); and lastly, 「chomok mun」 (plants and trees), 「josu mun」 (birds and animals), and 「chungeo mun」 (insects and fish) by the typical traditional classification criteria.

<Table 3> Composition of Kim Yuk’s 「Yuwonchongbo」

<table>
<thead>
<tr>
<th>Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy and Geography</td>
<td>1 天道門(1-3), 2 天時門(4), 3 地道門(5-7)</td>
</tr>
<tr>
<td>Political system</td>
<td>4 帝王門(8-10), 5 宗廟門(11-18), 6 重威門(19), 7 戶部門(20), 8 稲穀門(21-22), 9 兵錄門(23), 10 刑錄門(24)</td>
</tr>
<tr>
<td>Humanity</td>
<td>11 人倫門(25-27), 12 人道門(28), 13 人事門(29-32), 14 文學門(33-34)</td>
</tr>
<tr>
<td>Utensil</td>
<td>15 半室門(34), 16 建印門(35), 17 珍貴門(36), 18 布帛門(38), 19 器用門(36)</td>
</tr>
<tr>
<td>Food,Clothing</td>
<td>20 飲食門(39-40), 21 飲服門(37), 22 米穀門(38)</td>
</tr>
<tr>
<td>Study of nature</td>
<td>23 草木門(39-40), 24 鱔魚門(41-44), 25 鱈魚門(45-46), 47 附錄戶部 稻 菜</td>
</tr>
</tbody>
</table>

「Eumsik mun」 (foods), the 20th chapter in the 37th volume (foods) has items under 10 sub-titles of ban (rice), juk (gruel), byeong (cookies), sikmul (plants), yeomjang (salt), yu (oil), mil (honey), and ju (liquor). It has more detailed subdivisions than in 「Jibong yuseol」 and puts the staple articles of everyday diet rice, gruel, soup, and rice cake at the top, followed by various vegetables, salt, oil, honey, and lastly, liquor and tea. As shown in the above, 「eumsik mun」 (foods) of the 「Yuwon chongbo」 is an encyclopedia with emphasis given on everyday foods. While 「Samun ryuchi」 is divided into 「feasts and foods」 and 「foods」, Kim Yuk combined them into one category under the title 「eumsik mun」. 「Yuwon chongbo」 written based on an established compilation structure, made a big influence on late Joseon period publications. A suggestion is to sub-divide the classified encyclopedia to give foods a separate category under the title ‘encyclopedia of foods’, which will
provide basic references on the traditional foods of the Joseon Kingdom for further studies on the traditional foods of Korea, and in-depth studies of the Korean foods from the perspective of the humanities. Comparing 「eumsik mun」of『Yuwon chongbo』to Chuk Mok’s『Samunryuchi』in detail finds that 「eumsik mun」, centering on 「vegetables」, has incorporated the excerpts of 「feasts and foods」 and 「incense and tea」 of『Samun ryuchi』 and its frame is the same with those of the encyclopedic references of the Sung and Yuan Dynasties of China. In this regard, a question rises for the need of discussions for applying the framework of the books on Chinese foods to the studies on the late Joseon period Korean foods. 「Eumsikmun」of『Yuwon chongbo』doesn’t only borrowed the framework of Chinese references on foods, but contents as well. For example, in the 「ban」(rice), “steaming rice makes cooked rice, boiling grains make gruel” is from 「jeunggok wiban」(‘cooked rice/grains’) of 「ban」under the category of 「plants」of『Yuwonchongbo』“hyo『Samun ryuchi』. In the 「plants」of『Yuwon chongbo』 “‘hyo’ refers to a variety of meat; ‘eom’ salted meat; ‘beon’ cooked meat for ancestral rites”; in 「gokryangjeon」(grains) “‘sin’ is the raw meat for ancestral rites; and ‘beon’ cooked meat” are exactly what are found in 「gunseo yooe」of『Samunryuchi』. Other items as well are similar to『Samun ryuchi』.

As Kim Yuk wrote in the preface “ Last summer, I worked in a relatively less busy office, and I had time to make abstracts of Samun ryuchi. I took out unnecessarily complicated parts leaving only the gist. I referred to many books including『Yemun ryuchui』,『Cheonjunggi』,『Sandang sago』,『Unbu gunok』added and subtracted, supplemented for each item to be included in『Yuwon chongbo』, the gist of many books done in merely over a period of one year.

3_『Foods』in『Samun ryuchi』lists 10 moks(s) under it; 『feasts and foods』12 moks; and 『incense and teas』4 moks.
4_It makes reference to the photo print of『Yuwon chongbo』by 아세아문화사
『Sikmul mun』(foods) of 『Yuwon chongbo』 deals with foods, while the ingredients of the foods are included in other parts. For example, Chapter 22 『migok mun』 (‘rice and grains’) (volume 38) has 9 items under it: gok (grains), hwa (rice plant), seo (millet), sok (sorghum), jik (hug millet), du (bean), meak (barley), mi (rice), ma (hemp), and sochae (vegetables), dealing both grains and vegetables in the same chapter. Cucumber, zucchini and fruits are included in Chapter 23 『chomok mun』 (plants and tress)\(^5\), and 『birds and animals』 in Chapter 24 and poultry like cow, chicken, pig, fish, clams in Chapter 25 『insects and fish』. <Table 4>

<Table 4> Food-related items, 『Yuwonchongbo』

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 飲食門 (vol.37)</td>
<td>飯粥羹餅食物鹽醬油蜜酒茶</td>
</tr>
<tr>
<td>22 米穀門 (vol.38)</td>
<td>穀米粟粟稷豆粟米蘇蘇</td>
</tr>
<tr>
<td>23 草木門 (vol.39)</td>
<td>茶藻菊瓜薺藻浮萍苞葉芙蓉藻草</td>
</tr>
<tr>
<td>(vol.40)</td>
<td>松桂柏桑椯梧椯桐楊柳竹梅樱桃李茶石榴枸杞海棠薔梨吉栗楠樹</td>
</tr>
<tr>
<td>24 昆蟲門 (vol.41)</td>
<td>鳥鳩翠鳴鷹鷺猛禽鷹鷲鴨鷄</td>
</tr>
<tr>
<td>(vol.42)</td>
<td>鸚鵡燕雀鸚鵡烏鳴鳥鳴鳥鳴鳥鳴鳥鳴鳥鳴鳥鳴鳥鳴鳥鳴鳥鳴鳥鳴</td>
</tr>
<tr>
<td>(vol.43)</td>
<td>鹿鷇麋鹿子鹿角鹿茸鹿角鹿角鹿角鹿角鹿角鹿角鹿角鹿角鹿角鹿角鹿角</td>
</tr>
<tr>
<td>25 昆蟲門 (vol.44)</td>
<td>龜龜魚螯螯螯螯螯螯螯螯螯螯螯螯</td>
</tr>
<tr>
<td>(vol.45)</td>
<td>蜣螂螳螂蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛蜘蛛</td>
</tr>
</tbody>
</table>

\(^5\) 『Eumsik mun』 of 『Yuwon chongbo』 combined items of 『foods』, 『feasts and foods』, 『incense and tea』 of 『Samun ryuichi』 『rice and grains』 referred to 『grains and vegetables』, 『plants and tress』 has items of 『tress』, 『bamboo』, 『fruits』 and 『flowers』 combined.
The above tells us that to review the foods of the Joseon period needs studies not only on 'foods' but other related chapters. Those items are not included in the category of ingredients but 'plants and animals' in the category of 'manmul' (all things). In what categories the plants and animals as ingredients of food should belong is hard to judge, and extensive discussions are needed on this subject. In summary, 'Eumsik mun' of 'Yuwon chongbo' is arranged based on different classifications from 'Jibong yuseol' that has four sub-titles of grains, vegetables, fruits and medicine under 'foods'. Careful attention needs to be given to the fact that the 'foods' in various encyclopedia of the late Joseon period are based on varying classifications.

®Sallimgyeongje (a book on Joseon Dynasty agriculture) and foods ecology

(1) As reviewed, by the mid 17th century, 'foods' came to have an independent chapter in encyclopedic books under varying titles as each book followed different classifications according to each author's viewpoint. Let's take a look at the names and classifications of several representative encyclopedic books of the late Joseon period.

In the case of ‘Yuwonchongbo’, items on foods are found collectively under the title ‘Eumsik mun’.

Hong Man-seon (1643~1715)’s ‘Sallim gyeongje’ (a most systematic book on Joseon Dynasty agriculture. 4 volumes, 4 books, 1718) gave a different title ‘Chiseon mun’ (‘about side dishes’) to food items. Hong Man-seon is a contemporary of the famous ‘silhak’ (‘practical learning’) scholar Yu Hyeong-won (brush name ‘bangye’ meaning ‘secluded valley’) and contributed to the study of ‘practical learning’.

He served in various government offices such as Saongwon (a government office in charge of royal cuisine), Sajaegam (a government
post in charge of foods), Saboksi (a government office in charge of transportation means such as horse, palanquin), county governor of Daehung, Hapcheon, Goyang, Danyang, and Sangju. In his later years, he wrote this economy book, which set a new framework for books on forests and agriculture.

His eldest cousin Hong Man-jong (1643~ 1725) wrote in the preface “If Hong-seon went into government office and put his knowledge and experiences into practice, several thousand kilometers of rice paddies and dry fields would not have been damaged from diseases, forests would grow thick, and farmers would have rich harvests”, emphasizing Sallim gyeongje is a practical book on agriculture. He also said his knowledge of medicine would have saved people from dying young, the livestock would have been prolific, people would have proper foods and housing. Whatever it may take, he would have done his best for anything beneficial to people.” stating the book has cures to illness, ways for long life, how to grow livestock, good foods and housing and others.” At the end, he added “This book is about everyday life, and every house should keep it for their references. Acknowledging the value of this book, Jeolla -do governor Hong Seok-bo publishes it, hoping it will be widely read.”

Sallim gyeongje, an encyclopedic book on farming and everyday life foods is composed of 16 topics: housing, foods, agriculture, management of orchard, planting trees, flower growing, silkworm farming, raising livestock, foods and side dishes (vol. 2), emergency relief, famine relief, cure to epidemics, to fight off insects (vol.3), medicine, selecting dates for various events, and miscellaneous. The 16 topics are arranged following a flow of foods - health - man in his mind, and its classification and arrangement are different from other encyclopedia or books on agriculture.

6 Translated by the Institute for the Translation of Korean Classics, Sallim gyeongje translated into Korean, 1983.
A brief introduction to the flow of the book: It begins with 1 「bokgeomun」 about the harmony between nature and man 2 「seopsaengmun」 about a healthy life, then moves to various topics on farming, such as 3 「chinongmun」 about farming, 「chipomun」 growing fruits, 「jongsumun」 planting trees, 「yanghwamun」 raising flowers, 「yangjammun」 silkworm farming, 「mokyangmun」 raising livestock, then to 4 「chiseonmun」 foods, 5 then to the topics of medicine, and epidemics such as 「gugeupmun」 about emergency relief, 「guhwangmun」 famine relief, 「byeokonmun」 cure for epidemics, 「byeochungmun」 eradication of insects, 「chiyakmun」 medicine, and at the end on human being’s aesthetic desires and religions 6 「seontaekmun」 selection of dates for various events, 「japbangmun」 miscellaneous.

Themes of the above topics are ‘nature-health-farming-food-curing illness - everyday life’; in summary, an everyday life in harmony with nature; in other words, ‘care of health’ and a healthy diet’. ‘Seopsaeng’ (care of health) is a Taoism concept aiming for a balanced life and healthy body, and according to Hong Man-seon in his <seopsaengseo>, it means ‘to live a pleasant and comfortable life through invigorations
and proper eating that expel illness and lengthen the span of life.” In short, what he wanted to say through “Sallim gyeongje” was “good health and long life through eating well and healthy living”.

‘Siksaeng’ (food life’) is well explained in <chinongseo> (‘book on farming’) in the ‘chinongmun’, “Food life is heaven for the people and it is preceded by agriculture. Agriculture is indeed the basis of people’s existence.” Likewise, eating is heaven for the people and it starts from good farming. ‘Siksaeng’ 食生 is a comprehensive term I created, encompassing a series of processes for a healthy diet from farming, harvesting, trimming, storing, eating, and others. The term is borrowed from the philosophy of “Sallim gyeongje”, and is intended to expand the perspectives of foods. Foods need more comprehensive discussions encompassing nature-friendly farming, preparation of healthy foods, cooking, eating, keeping a healthy body which is the very purpose of foods, and living everyday life for good health and longevity. In other words, I am suggesting ‘siksaeng’ as a new term referring to an entire process of maintaining life in relation to foods.

Another term corresponding to ‘siksaeng’ is ‘food ecology’. Food ecology includes an entire spectrum of discussions related to foods: the purpose of foods, nature and man, food and health, farming and dining, grain farming, vegetables farming, livestock raising, everyday life food, good health and cure of diseases in everyday life living, prevention of illness, pest control, cure of epidemics, emergency relief, famine relief, cure of illness through medicine and others. Since ecology emerged in the 19th century as a new branch study of biology, the idea of ecology is now widely borrowed by other fields of studies like sociology, economic management, and even the humanities. I am proposing ‘food ecology’ to see foods from its broader perspective. It stands for an extended concept of ecological folklore studies which says human culture is closely related to its natural environment.

“Sallim gyeongje” put ‘bokgeomun’ (housing) before foods which suggests that the book emphasizes the architectural spaces like room, kitchen, well, outhouse, mill, and fence are also basic for a healthy life.
The housing in the book, if it is interpreted from today’s viewpoint, incorporates nature-friendly ecology, public health and hygienics for family and community life, which reflects that a well-rounded understanding of life acknowledging good health and long life is possible when a safe and comfortable residential environment is secured. In this regard, housing is also a realm of food ecology. Food ecology dealing with comprehensive subjects of housing, farming, food, maintenance and improvement of life, cure of diseases, and cure of illness through medicine, is a domain of natural science studies searching for a harmony between nature and man through a healthy food life. This is also suited to modern people’s longings for a nature-friendly life, healthy eating, good health, and long life.

Reinterpretation of ŏ’Sallim gyeongje’ from the point of food ecology is essential for the establishment of food humanities studies. Reviewing the food items under the 16 topics in ŏ’Sallim gyeongje’, anyone would find ample evidences for the possibility of foods ecology studies. ŏ’Sallim gyeongje’ is heavy with the ideas of maintaining life. From the perspective of maintaining life, the book can be divided into four categories:

1. ‘yangsaeng’, the physical conditions for a good living, which is included in ‘bokgeomun’ (housing)
2. ‘seopsaeng’ (eating); ‘seopsaengmun’ (eating), ‘chiyakmun’ (medicine)
3. ‘siksaeng’ (dietary life) : ‘chinongmum’ (farming), ‘chipomun’ (vegetable farming), ‘chiseonmun’ (cooking)
4. ‘gusaeng’ (relief) : ‘gugupmun’ and the rest for curing and saving lives from emergency and famine.

The above constitute a serious of process for maintaining life, an incorporating viewpoint covering all four can be summarized into ‘the theory of chisaeng’ (‘governing the life’).

The term ‘chisaeng’ appears in 17th century Confucian scholar Gang Wa (?~?)’s ŏ’Chisaeng yolam’ (‘digest for governing life’, 2 volumes, 1 book), a book on foods and agriculture. It was completed in the 27th
year of King Sukjong (1691) about 30 years before Sallim gyeongje. Its preface says “Farming is the prop of people’s existence. It is also the basis of governing life as people pay for hundreds of things with the profits from farming. ... There lies the principle of how man governs all creation. ... Its first volume is on the way of Heaven, geography, and supporting one’s parents through discipline and frugality. The first half of the second volume is given to how people should prepare for lean years, while the second half is for governing everyday life... Governing life means not only staying away from killing, and serving the Buddha but helping people by planting good grains, useful trees and vegetables, harvesting them.” As the title Chisaeng yoram suggests, this book sees heaven, geography, food, farming, and raising livestock from the perspective of ‘governing life’. In Sallim gyeongje, this concept of governing life has been further developed into an encyclopedia with more systemized classifications.

(2) Sallimgyeongje is written heavily reflecting superstitious beliefs and the considerations of climate and seasonal changes all year round. For example, “early - ripening rice should be planted in early March as soon as winter ice thaws”, “.. optimum buckwheat planting time is 3 days before ‘Ipchu’ (the onset of autumn by the lunar calendar) if it falls in August, or three days after Ipchu if it falls in July.” “Either Usu in January (Usu: ‘rain water’, 雨水, one of the 24 seasons in lunar calendar, usually it falls in mid January, February 19~ 20 by solar calendar. By this time, it is starting to thaw, spring wind blowing and new buds began coming up.) or Ipdong in October (ipdong: ‘onset of winter’ 立冬) are the days to make soy sauce.” “soy sauce made on the ecliptic day in the midsummer heat will be without worm”; “make soy sauce before sunrise or after sunset, and it will keep flies out”, “the day of rabbit’ is the auspicious day to make soy sauce, better to avoid sinil (‘abstaining day’: on the days of mice, dragon, horse, pig in January, people are requested to act prudently).”
Auspicious days and bad days are dealt with in detail in a separate category of 「seontaekmun」 (‘about choosing dates’); however, such superstitious belief and considerations for climate and seasonal changes are heavily ensconced everywhere in the book, not to mention in 「bokgeomun」 (‘houseing’), 「chinongmun」 (‘farming’), and 「chiseonmun」 (‘foods’). I have divided the traditional method of forecast based on climate and seasonal changes into five categories: (1) seasonal forecast based on climate and seasonal changes of month and sub-divisions of the year, (2) astronomical forecast based on the changes of sun, moon, solar eclipse, lunar eclipse, (3) meteorological forecast based on wind, rain, frost, snow, other weather changes, (4) animals, plants, nature-based forecast by observing trees, plants, animals, insects, fish and others. The five categories again were grouped into three theories: first, ‘sihuron’ (‘time forecast theory’, weather forecast based on seasonal changes) with the first three forecast methods grouped into one, as changes of the sun and moon decide seasons and weather changes; second, ‘mulhuron’ (‘live and unanimated beings forecast theory’, weather forecast based on observing things) based on experimental observations on everyday life and surroundings; and third, ‘sulhuron’ (‘shamanism forecast’), a shamanism-based weather forecast. In general, the traditional understanding of nature does not deviate from these ‘three weather forecasting theories.’

『Sallimgyeongje』 as well is built on the three weather forecasting theories and the foods ecology is discussed in terms of seopsaeng (care of health), siksaeng (foods life), yangsaeing (invigoration of health), chisaeng (governing life). This weather forecasting method is even more distinctive in 『Jeungbo sallim gyeongje』. Hong Man-seon’s『Sallimgyeongje』 (4 volumes, 4 books, 1718) was greatly enlarged by Yu Jung-im (1705~1771), who served as a royal doctor, to 『Jeungbo Sallimgyeongje』 which was published in 1766 and widely circulated. In the preface, Im Hui-seong (1712~1783), who is from the same
province as Hong Man-seon, writes “It is not known who the author was of Sallimgyeongje, when it was published.... The book is too small in volume and incomplete due to omissions of some necessary items. Munseong gong (Im Hui-seong’s adult name) felt sorry about it and poured his efforts into enlarging it.” “The volume of the enlarged version is twice the original’s.” Sallimgyeongje 160,000 characters in volume, Jeungbo Sallimgyeongje 340,000 characters.

Sub-titles and order were changed and Home affairs, To have a son to carry on one’s name, weather forecast, mountain and water were added to the 16 categories of Sallimgyeongje. In addition, as shown in Table 6 “…superstitious elements of the Yin-Yang and Five Elements theory are much heavier in the enlarged version. For example, bokgeomun (housing) includes auspicious days and ominous days for planting trees and for putting up a pole; chinongmun (farming) has extensive information on auspicious days for plowing dry fields, planting seeds; and chiseonmun (foods) says “.. not to make soy sauce on ‘bad water day’” “..to make soy sauce facing the direction of Jupiter will keep worms away.”

What is worth special attention is that jeomhu pyeon (weather forecast section) of Jeungbo sasichangyeo and Jeonga jeomhu (‘weather forecast in countryside’) has been added to the enlarged version. Jeungbo sasichanyo writes on monthly weather forecasts for farming, household affairs, seasonal events and taboos. About the weather forecast, separate items wind rain forecast and seheom (weather forecast for a year) have been given. Jeonga jeomhu includes the forecast based on observing things, seasonal forecast, and superstition forecast that farmers experienced or use as references. 15 items have been given to meteorological phenomena such as the sun, moon, stars, wind, rain, cloud, rainbow, thunder, lightning, frost, snow, ice, fog, weather. Mostly meteorological phenomena was recorded by empirical observations. Selection of dates has a collection of items regarding superstition-based auspicious days, and ominous days for various events like moving, wedding, digging wells and others.
As such, 『Jeungbo Sallimgyeongje』 tells us the mid 18th century scholars’ viewpoint of nature, their thoughts on how to increase vital force, ways to forecast weather and seasonal changes. As well shown in Wiseonji 魏鮮志 of Seo Yu-gu’s 『Imwomgyeongjei』, which is considered the greatest 19th century encyclopedia published about 60 years after 『Jeungbo Sallimgyeongje』, the experience - based weather forecasts are more systematically compiled in the books, suggesting the viewpoint of ‘nature as man responding to the heaven’ has been expanded further in the 19th century.

In the 18th and 19th centuries, farming and foods have been developed based on thoughts of ‘communion with nature’, and this idea of harmony with nature is also an important concept in foods ecology. Old references of foods such as 『Jeungbo Sallimgyeongje』 are open to nature -friendly ideas, and incorporating the traditional ideas and today’s scientific technology-based approach would expand the dominion of future food studies. Likewise, future studies on foods are expected to incorporate natural changes in foods.
Classification of foods and farming in "Imwon gyeongjeji", "Nongjeong bonsa"

(1) Foods ecology includes the cultivation of greens, crops and fruits, livestock raising, foods and others related to foods. The following is a review of the classification of foods in the old encyclopedias.

Of various encyclopedic references on foods, Seo Yu-gu’s "Imwon gyeongjeji" (113 volumes, 52 books, published 1827) has a unique category titled ‘Jeongjoji’, ‘the gazette of cattle and cutting board’. The preface of ‘Jeongjoji’ writes ‘jeong’ means a kitchen utensil ‘harmonizing the five tastes to cook grains; ‘jo’ stands for ‘bowl’ for sacrifices, which follows the format of 『Ligi 禮記』 (one of the five Confucian scriptures, the book is on good manners). But the author says the title is borrowed from 『Juyeok 周易』 for jeong (‘cattle’) and 『Hanseo』 for ‘jo’ (‘cutting board’), ‘cattle and cutting board’. The preface says ‘Jeongjoji’ has 9 sub titles under it but if <jeono> <gumyeon> were given separate titles, it would have 11 sub titles.

<Table 7> Contents of Jeongjoji in "Imwongyeongjeji"
But as Chapter 1 <sikgam chalyo> is a general introduction to foods, the actual sub-categories of Jeongjoji are 10, from Chapter 2 ‘cooked foods’ to chapter 11 ‘seasonal foods’. Chapter 2 ‘cooked foods’ includes rice, rice cake; Chapter 3 ‘braised or fried foods’ gruels and taffy; Chapter 4 ‘noodle’ noodles and dumpling; Chapter 5 ‘drinks’ soup, tea; Chapter 6 ‘cookies’ wheat cookies and fruits boiled down in sugar; Chapter 7 ‘chewy foods’ salted vegetables, dried vegetables, fragrant greens; Chapter 8 ‘boiled foods’ meat and fish; Chapter 9 ‘condiments’ salt, soy sauce, fermented soybean, vinegar, oil, milk, malt; Chapter 10 ‘alcoholic beverages’ alcoholic drinks, sweet rice drink, soju (Korean distilled spirits); Chapter 11 ‘seasonal foods’ traditional foods for seasonal events such as for ‘wonjo’ (the lunar new year’s day); ‘ipchun’ (onset of spring); ‘sangwon’ (the first full moon day); jungsam (‘double third festival’ or the third day of the third month of the year by lunar calendar, it is said the sparrow comes back from the south on this day); ‘deungseok’ (Buddha’s birthday, April 8 by lunar calendar), ‘dano’ (double fifth festival, May 5); ‘yudu’ (June full moon day, June 15); ‘sambok’ (the dog days in mid summer); ‘junggu’ (double ninth festival); ‘dongji’ (winter solstice); and ‘nappyeong’ (the third goat day after the winter solstice).

<sikgam chalyo> (‘looking into foods as if seeing in the mirror’) is a general introduction to foods and is divided into 8 categories: water, grains, vegetables, cookies, animals, poultry, fish, and condiments. It begins with discussions on well water and rain water, suggesting the author’s special attention to the importance of nature.

<Grains> has 37 items including rice, glutinous rice, millet, sorghum, wheat,
barley, buckwheat, oats, bean, red bean, mung bean, pea, sesame, and perilla. <Vegetables> enumerate 79 items: green onion, garlic, chives, ginger, mustard, pepper, cabbage, radish, crown daisy, spinach, shepherd purse, pigweed, lettuce, bracken, taro, bamboo shoots, curled mallow, burdock, lotus stem, gourd, white gourd, pumpkin, cucumber, sponge gourd, snake gourd, mushroom, sea mustard, seaweed, green laver and others. <Fruits> list 48 items such as the plum, apricot, peach, chestnut, dates, pear, quince, crab apple, persimmon, lotus-persimmon, pomegranate, tangerine, citron, cherry, ginkgo, walnut, hazelnut, acorn, nutmeg, pine nut, oriental melon, water melon, grape, yam, raspberry, wild grape, lotus root, and others. Like this, ‘Jeongjoji’ s classification is different from other encyclopedias on food.

While Seo Yu-gu’s ‘Jeongjoji’ divided plants into three categories, Park Se-dang (1629~1703)’s ‘Saekgyeong’ (‘book of harvest’, published in 1676) has five classifications of grains, fruit-type greens, fruits, trees, flowers and medicinal herbs. Unique to the classification of ‘Saekgyeong’ is its choice of ‘fruit-type greens’ as a sub-title and not ‘vegetables’. In the <Fruit-type greens>, the book discusses fruit-type greens first, such as cucumber, watermelon, white gourd, gourd and then proceeds to vegetables like green onion, chives, lettuce. It also divides ‘fruit trees’ like pear and peach from ‘various trees’ like bamboo and boxthorn. A separate category is given to lotus, chrysanthemum, cassia, Chinese yam under the title <flowers and medicinal herbs>.

Besides different classification titles, classification of items vary as well. For example in ‘Jeongjoji’ water melon is under <fruits> and Chinese yam in <fruits> but ‘Saekgyeong’ has the items under ‘fruit-type greens’ and <flowers and medicinal herbs>.

The above suggest a need for comparative analysis on classifications of foods in old references including terms. For example, ‘Gosa sipijip’ (‘Observation on things in 12 chapters’) uses ‘greens’ instead of the generally used term ‘vegetables’.

(1) Of various encyclopedias of the Joseon period, the most interesting classification is found in Seo Myeong-eung’s ‘Nongjeong bonsa’ (‘agricultural management basic history’, 12 volumes, 6 books, published in
1787. Its original title is "Bonsa" ‘basic history’). "Bonsa" with a unique biographical compilation on agricultural management has 8 gi (紀), 9 ji (志), 10 sega (世家 ‘families’), 16 yeoljeon (‘biographies’). Volume 12 ‘Byeolsam’ (‘special three’) at the end of the book is an appendix mainly on silk farming, and it is called "Jamjeong bonsa" (‘silk farming basic history’) and is composed of 4 bongi (‘basix history’), 4 ji, 3 biographies. "Jagijji" (‘hoe and bowl gazette’) and everything written after are supplements made by Seo’s grandson, Seo Yu-gu.

Seo Myeong-eung writes in the <preface> “... Agriculture is the basis of national existence and is the product of the collaboration of heaven, earth, and man. How could agriculture not have its history?” explaining why he chose ‘basic history’ as the title of the book. Following the style of "Hongbeom" (‘comprehensive norms’, a part of "Seogyeong", one of the five scriptures of Confucianism, a political records of ancient times of China), ‘eight grains’ of rice, millet, glutinous millet, sorghum, barley, bean families, soybean, and yam come at the beginning which are then followed by various matters related to farming of the 8 grains. Vegetables and fruits are put under the category of ‘sega’ and water; tree, plants and flowers are placed under ‘yeoljeon’. This unique and interesting biographical style of compilation is to establish the history of agriculture and significance in the style of the historical documents of kingdoms.

While "Nongjeong bonsa" is in the style of historical documents, it nicely shows the 18th century classification of vegetables and grains. Vegetables and fruits are in ‘10 sega’ (Book 5, Book 6). Book 5 has fragrant greens, side-dish vegetables, slippery vegetables, water vegetables, mushrooms. Book 6 writes on five fruits, fruits with seeds, fruits growing in water, fruits on vines, and others. ‘16 yeoljeon’ (Books 7~11) right after ‘10 sega’ is where trees, plants are. Book 7 deals with trees under the sub-titles of straight -growing trees, miraculous medicinal herbs, beautiful flowers and plants, plants growing in water, plants with fruits, plants with vines, narrow growing plants, and imported plants.
『Nongjoeng bonsa』 carries a total of 773 kinds of plants: 105 kinds of vegetables, 75 fruits, 130 trees, 463 plants, and it is a valuable reference for studies on foods ecology, farming, forestry, biology and other plant-related studies. But the problem exists that it is not an easy reference, as it has not been translated into Korean, yet.

Here I request bringing the question of applying traditional classification of plants and farm products out on the table. One possibility is first, to classify green onion, garlic, and chives as lilaceous herbaceous plants and cucumber, watermelon, white gourd as teasel gourd; second, use the herbal medicine classification originally used for Chinese medicine; and third, standardize a classification of foods. In other words, I would like to reiterate there is a need for a comprehensive study method encompassing various fields of studies for the classification of plants and foods.

<Table 8> Contents of 『Nongjeongbonsa, Seo Myeong-eung』

<table>
<thead>
<tr>
<th>Book</th>
<th>Chapter</th>
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<td>世系世家,粟粟世家,滑菜世家</td>
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<td>「別三」</td>
<td>Vol.12</td>
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<td>本紀,顧紀,季紀,年紀,時紀,藤器志,穀穗志,倉庫志,農書志,三列傳,四列傳,五列傳,六列傳,七列傳,八列傳,九列傳,十列傳,十一列傳,十二列傳</td>
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As any modern classification is overly morpheme-oriented, and quite isolated from reality, the analysis on traditional classifications of plants and foods is of absolute importance and is closely related to laying the foundation for studies on foods ecology. Further studies and restructuring the classifications of foods found in 『Gosa sibijip 改事十二集』 (‘Observation on things in 12 chapters’) and 『Jeongjoji』 (‘the gazette of cattle and cutting board’) are strongly suggested. An understanding of the system or structure of the traditional classification of foods will help in laying the foundation for building compatibility with modern foods classifications. Seo Yu-gu participated in the publication of 『Nongjoeng bonsa』, and his viewpoint and references he consulted for the book are heavily reflected in his 『Imwon gyeongjeji』 (an encyclopedic book on farming, forest, medicine) and 『Jeongjoji』. I suggest further studies on this aspect as well as studies on foods with respect to farming.

Conclusion

Thus far, through studying foods-related encyclopedias printed during the Joseon period, we have reviewed our forebears’ understanding and their viewpoint of foods. Of various encyclopedias, we have in particular reviewed the encyclopedias with chapters, classified based on established structure, such as 「foods」 of 『Yuwon chongbo』 by Kim Yuk in 17th century, 「chiseonmun」 included in 『Sallim gyeongje』 by Hong Man-seon in 18th century, and 「jeongjoji」 in 『Imwon gyeongjeji』 by Seo Yu-gu in the early 19th century. I pointed out 『Sallim gyeongje』 represents foods ecology. The book pays much attention to the importance of nature, healthy dietary habits and foods, housing, farming, healthy living, maintaining health with the help of medicinal herbs and others. I also suggested any food
discussions should take in climatological considerations, which are very impactful on food choices. This article also discussed classifications of foods in view of farming based on Seo Yu-gu’s ‘jeongjoji’ 『Imwon gyeongjeji』 and his grandfather Seo Myeong-wung’s 『Nongjeong bonsa』. ‘Jeongjoji’ divided into 8 categories such as grains, vegetables, fruits, poultry and fish, condiments, while Park Se-dang’s 『Saekgyeong』 into five categories of grains, fruit-type vegetables, fruits, trees, flowers and medicinal herbs. 『Nongjeong bonsa』 shows the most systematic classification having ‘8 bongi’ on grains, ‘10 sega’ on vegetables, ‘16 yeoljeon’ on trees and plants. Further studies are needed on the classification of foods of ‘jeongjoji’ and 『Gosa sibijip 敦事十二集』, which will enable the establishment of foods ecology studies.

The above attempts are in line with laying the foundation for kimchiology as an interdisciplinary study fitting the needs of the globalization era. This article suggested four concepts of seopsaeng (dietary life), siksaeng (foods), yangsang (invigoration of health), and chisaeng (governing health) in its discussions on traditional foods and the ancients view of the world seeing heaven-earth-man as one; foods and medicine; esthetic desires, housing and environment as being the basis for healthy food life and invigoration of health; and also foods, farming, and maintaining health as parts of the procedure in maintaining life. While this article leaves much to be desired, it has tried to tap on the possibility of foods ecology based on old references as a study responding to the needs of modern society.
11

Cultural anthropology of Kimchi and Kimjang,

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Universality and uniqueness of Kimjang:
A product of civilization exchanges and creative Koreans.

From remote antiquity, human beings developed methods to preserve foods. In particular, people in regions where there are seasonal changes developed various preserved foods. Preservation and fermentation of vegetables using salt or a variety of vinegars is most likely from ancient times. While the ancient Chinese also ate pickled vegetables, the Germans and the Netherlands developed^1^ Sauerkraut.^2^ East European countries such as Poland, Czechoslovakia, Hungary, Russia and others also had their own pickled vegetables and each household prepared them when winter drew near.\(^3\)

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1. Korean transliteration of ‘Sauerkraut’ is based on English pronunciation.
2. Sauerkraut, German’s favorite food, means ‘sour cabbage’ in German. Some say ancient Chinese cabbage pickle was brought to Europe by Genghis Khan and his descendants who invaded China. But ancient Romans said Sauerkraut is good for digestion and Emperor Tiberius carried Sauerkraut at all times when he traveled far to the Middle East (Sauerkraut History: Lewis Mountain Fresh Farm). On the other hand, Wikepedia says after Genghis Khan’s invasion of Europe, choucroute was developed in France.
3. Sauerkraut is called by various names in many East European countries.
East European countries’ preserved foods like sauerkraut can be considered a distant relative of kimchi, a kind of kimchi in the broadest sense and making large quantities of sauerkraut may well resemble a kind of kimjang in the broadest terms. Likewise, kimchi and kimjang is a universal phenomenon that is commonly found in cultures of mankind. The Netherlander sailors were saved from scurvy thanks to sauerkraut and the large number of war prisoners survived the South North War.

In narrowing the meaning further, kimjang refers to a traditional vegetable preservation method to last through the winter and was developed in Korea. It is known that there are more than 200 kinds of kimchi, and recently as many as 300 kinds. Of those, ‘typical Korean kimchi’ is red kimchi made of cabbage and chili peppers. This typical kimchi represents a development of a new and high degree of completion taste, made of traditional salted vegetables mixed with peppers that was introduced from the New Continent after the Grand Navigation Era of Columbus. It is the product of civilization exchanges between the East and the West.

Countries in the Old Continent developed their vegetable pickles over a long period of time. On the origin of kimchi, vegetable pickling that began 6,000 years ago in China is often said to be the way that Korean kimchi got its start. There are also other discussions saying kimchi is not from China, but was developed in Korea since salting vegetables or having them ferment is a solution to a very real food problem in winter. Thus it was more likely that this particular preservation method could have been thought up by anyone anywhere in response to an environmental challenge.

What I would like to emphasize in this article is whatever the origin might be, of the various salted vegetables that were already popular in

4_Wikepedia introduces ‘Sauerkraut’ and kimchi are the representative lactic acid fermentation vegetables. It also mentions Japan’s tsukemono, Chinese suan cai, Philippine’s atsara, Salvadore’s curtido, and silage that is mostly used to feed animals.
5_C.L. Park, ‘Root’s of Joseon Dynasty Kimchi’
the Old Continent when Columbus brought chili peppers to it, kimchi was the first to incorporate it. And up until recently, there was few pickled vegetables using hot peppers. In other words, while various assumptions could be made about the origin and dissipation process of the pepper, of the numerous countries in the Old Continent that enjoyed salted vegetables, Korea was the first and only one to use this pepper for a salted vegetable and develop varieties. In this regard, kimchi and kimjang are the product of Korean creativity.

Kimchi and kimjang are two of the more highly-developed cultural traditions and a result of interaction, when only very limited exchanges with the outside world was possible, between natural conditions of climate and soil native to Korea and the know-how, technology, family and extended family system, and the social network of traditional society. The use of hot peppers for kimchi; the expansion of cabbage cultivation for the typical whole cabbage kimchi; and kimjang developed into a family and social event, particularly through women’s networking and exchange of labor, were all as late as in the late Joseon period.

Kimchi and Kimjang, Trial and Glory

Different from sauerkraut, kimchi in the course of Korea’s modernization suffered cultural prejudice, and discrimination, but in the 1980s, kimchi was acknowledged as a wonderful health food and made a dramatic revival as an addictive popular food. Kimjang appeared on its way as the country underwent modernization, but in fact, it is still going strong, though in different forms from the past.

The entire compressed stratum of Korea’s modernization shows up clearly in the trials of kimchi: Japanese colonialization and the Korean

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6_ Refer to “Some Foods are Good to Think: Kimchi and the Epitomization of National Character”, which was presented at the Association for Asian Studies held in Boston in 1994, published in 2000.
War which exposed Korea to foreign culture and westernization in the extreme in turn reduced the status of Korean foods, including kimchi (This subject has been discussed in detail in my 1994 article). The dramatic revival of kimchi is a result of complex interventions of the respect for life and the environment, new interpretations on health, nutrition, hygiene, respect for women; protest movements against globalization and modernization, criticism against the western oriented thoughts, rediscovery of a traditional value that was being crushed to death amid omnipotent science and modernization discourses and others. What empowered to the revival of kimchi were Korean economic growth and Korean’s confidence, a new scientific interpretation of the traditional knowledge, technology and values and the technology and market development for kimchi represented by the emergence of the kimchi refrigerator.\(^7\)

Though, there are many good aspects to kimchi, its smell is still a factor for creating conflict and stress. While there are eulogies to kimchi in the western media and celebrities claim kimchi is their ‘favorite food’, America’s major league baseball player, Korean Park Chan-ho recounted his kimchi story experience when he was a guest on a famous TV program “Golden pond fortune teller telling us that there is a persistent prejudice against kimchi.\(^8\)

People, gender, social class

Kimchi uses hot chili peppers that were introduced to the Old Continent after the Columbus’ Grand Navigation Era, and kimchi became a representative and most unique food of Korea. Pepper and its spicy taste

\(^7\) Many companies like Daewoo, Gold Star, and Samsung developed kimchi fridges between 1984 and 1985 but failed to draw people’s attention. In 1995, Mando company developed ‘Dimchae’ and made a huge success with it.

\(^8\) For further information, check video clips on YouTube; for example, http://www.youtube.com/watch?v=FWimXHuIfZQ (2013. 09.25)
is a symbol of man and male values. It stood for Korea when compared to a Japan and America who were strangers to spicy kimchi.\(^9\) Kimchi and kimjang were considered women’s work, and along with soy bean paste-making and soy bean sauce-making, it played an important role in forming and maintaining women’s social networks. Kimchi-making can be done by one or two persons, or it may need a group such as for winter kimchi-making (kimjang). Composition of the group work has a lot to do with one’s social economic status, status in the family or relatives, age, experience, and authority. Kimchi-making can be a source of tension or conflict between mother-in-law and daughter-in-law. Each household has their preferred tasting kimchi; eat different kinds of kimchi; and use different ingredients for their unique recipes. The various kimchi recipes and division of responsibility in kimjang sometimes cause conflicts among members of that group work. The role of a woman: born into a large family, who grew up, got married, had children, raised them took charge of running that family, watched her own children get married, got old ... continues to change. She participates in the social network of kimchi and kimjang or she may lead the organizing of the group. Kimchi, kimjang, fermented soybean lump-making, soy sauce-making and managing them played an important role in woman’s socialization, formation and changes in the women’s network. The network and cycle of kimchi and kimjang can be viewed from the point of time, or the rites of passage or from the point of space, or exchanges. I have discussed more on this subject in detail in my 2011 article “The ‘Kimchi Wars’ in Globalizing East Asia: Consuming Class, Gender, Health, and National Identity.”

Kimchi making and consumption of kimchi contains various features of a society including delicate hierarchical significances. Kimchi has become the example of a food that, mixed with other ingredients, becomes a new variety. Industrialization of kimchi; kimchi marketing;  

\(^9\) For various symbolic significances of the spicy taste of kimchi and pepper shape, in particular, racial inferiority complex, complicated feelings, resistances, sexual connotation, refer to my presentation made in 1994.
the development of the food service industry; and development of local specialty kimchi as a means for regional development are all expected to play on and, at the same time, reiterate upon the discourse on nationalism, regionalism and class consciousness.

Globalization and commercialization

Globalization and “Kimchi Wars”
Korean feeling toward Japanese ‘kimuchi’ and the disturbances over Chinese kimchi were telling proofs of the beginning of the globalization of kimchi. So called “Kimchi Wars” with Japan and China which took place in the course of the rapid globalization of the Korean society provides much food for thought.
The “Kimchi War” with Japan relates to the painful experiences of discrimination and contempt that Koreans and Koreans living in Japan suffered during and even after the Japanese colonization period, on the ostensibly derogatory excuse of ‘kimchi smell’. With the internationalization of Japan and the Olympic Games held in Seoul, the prejudice against kimchi reduced and outside interest in kimchi grew. The Hallyu (‘Korean culture fever’) helped, and kimchi, once considered smelly and low class food, emerged a food good for health, skin beauty, and losing weight.
This positive attention made Koreans happy, in reality, however, was the Japanese liked their ‘kimuchi’ over the Korean style kimchi made by Koreans. When the Middle East construction boom was dying down, Korean kimchi exporters expected sales to increase in the Japanese market. But Koreans’ expectation didn’t come true and they were alarmed at the news that Japan was trying to get a lactic acid patent as well as apply for the Code Alimentarius Commission (CAC) that Japanese kimuchi would also be recognized as standard kimchi. The
Korean media reported that Korea won the ‘Kimchi War’ and the fake kimchi ‘kimuchi’ had been expelled from the international market. The truth of the matter was that the CAC recognized the joint proposal of Japan and Korea after convening four separate and very lengthy hearings. ‘Victory’ of Korea in the kimchi war didn’t bring about any increase in kimchi sales in the Japanese market. The ‘Kimchi War’ with Japan was first ignited out of economic interest; however, the Korean sense of justice and feeling that ‘genuine’ Korean kimchi was under attack by a ‘fake’ Japanese kimchi was a big factor. It showed Korean sentiment unfavorable toward Japan from the bitter memory of the Japanese colonialization.

The ‘Kimchi War’ with China in 2005 was over food safety and hygiene problems. Heavy-metal contamination of the cabbage grown in Chinese soil; parasite problem from using human manure for growing cabbage; and using formaldehyde to keep cabbage from withering made Koreans greatly worried. The idea that ‘kimchi is Korean food’ played quite a part in aggravating the kimchi wars. Media and social leaders’ patriarchal anger and admonition toward progressive Korean women who do not make kimchi at home and buy kimchi from the market also added intensity to the heated discussions over kimchi.

The ‘Kimchi Wars’ with Japan and China are related to the globalization of Korea and the globalization of kimchi. Kimchi globalization involved two sides: kimchi export and kimchi market expansion on the one hand, and kimchi import increases on the other. About the ‘kimchi wars’, I have discussed in detail in my article “The ‘Kimchi Wars’ in Globalizing East Asia: Consuming Class, Gender, Health, and National Identity”, anyone interested in this subject is advised to refer to that article. In the background of the controversies lie not only the national sentiment but also discrimination and exploitation experienced in history; Orientalism; prejudice against old traditional things amid the sweeping modernization; concerns for family health, food safety, and patriarchal attitude that says kimchi-making should be women’s work.
Globalization and commercialization of kimchi naturally poses the possibility of globalization and commercialization of kimchi-making. Increased working women and dinners out; overflowing ready-to-eat foods; reduced importance of seasonal changes in the supply of ingredients; and apartment living give a pessimistic view of winter kimchi making (kimjang) even in Korea. But looking carefully into the increasing awareness of health, life style change reveals that kimchi-making and kimjang are not only to secure needed amounts of kimchi, but are also expected to survive in different scale and style with new meanings attached and to expand out to the world.

The important thing here is to find various ways for the commercialization of kimchi: to have the people of the world enjoy ‘genuine kimchi’; to export Korean kimchi to the world market; to earn a privileged status for the kimchi of Korea, ‘the suzerain state of kimchi’, over local kimchi produced in respective countries of the world; to promote Korean foods through kimchi; to introduce Korean foods to the world, and support the development of Korean food restaurants overseas. Through kimchi as an established national brand of Korea, market expansion for the Korean cultural products and made-in-Korea industrial products can also be attempted.

As for introducing kimchi to the world and kimchi export expansion, various other ways need to be explored because kimchi exportation has its limits. It is a living product and an article of great bulk, and long distance transportation, long period storage, quality maintenance, and safety guarantee are extremely hard. To develop local farmland and kimchi factory building might be a solution to these problems.

The power of imagination might kick in for other means of promotion and exportation of kimchi. For example, to export kimchi condiments instead of a complete product, to have people know what’s involved in a kimchi recipe, in other words, to approach kimchi from the point of
knowledge economy, information industry, and as a cultural product. Kimchi specialists may go abroad and open kimchi studios teaching how to make kimchi and keep it tasting its best. They may develop various new menus using kimchi that would appeal to the people of the region or find and cultivate various new ingredients to make with kimchi. Looking into finding local foods that go well with kimchi can be another possibility.

Going through its modernization period, kimchi became over simplified and the red spicy kimchi was standardized into all ‘Korean kimchi’. Under the circumstances, restoration of various traditional kimchis and distributing them worldwide through commercialization is important. Development of capitalism, expansion of employment for women, along with technology development are bound to boost commercial kimchi and factory made kimchi, however. At the same time, for other reasons, kimchi making at home will continue. Male participation in kimchi making would be possible as well.

While the globalization and commercialization of kimchi is a question of science and technology, it is also a question of knowledge, information and imagination, requiring academic approach and creativity.

Kimchi and Kimjang: future and challenges

The significance of Kimchi to be registered as the UNESCO Intangible Cultural Heritage

It is a joy that kimchi and kimjang culture are being registered as the UNESCO Intangible Cultural Heritage. It represents an international recognition of Korea’s cultural tradition, one that suffered under-appreciation and distortion from colonization, the Korean War, and territorial division. Koreans should be proud of this recognition: it is an
opportunity to think of the potential of the Korean culture.

Of the various Korean inventions, one could say that kimchi is Korea’s sure and solid contribution to mankind. Seokguram Grotto, Bulguksa Temple, Goryeo celadon, Geumsokhwalja (metal type), Cheugugi (rain gauge), Hunminjeongeum (the Korean Alphabet), Geobukseon (‘turtle ship’) are all excellent inventions, but their contribution to the human community was rather limited. For example, the Gutenberg metal type came into being later than Goryeo metal type; however, it was not influenced by Goryeo metal type. Goryeo metal type influenced the metal type developed in the Joseon period, but its influence was not that of the Guternberg metal type that changed the entire course of European history. Its influence was so limited that it didn’t bring about commercial publications.

On the other hand, kimchi is expected to exert continuous influence worldwide. Kimchi is gaining popularity over other similarly pickled and fermented vegetables and salted vegetables mixed with pepper. It is, on the one hand a result of increased interest in health food and reappraisal of fermented foods, and the spicy food fever. On the other, it is also leading the fashion. Kimchi doesn’t stop at having the brand of Korea, but it also has great potential for future development.

The registration of kimchi as the Intangible Cultural Heritage at the UNESCO is more than an international recognition of the importance of kimchi and its health food qualities. Mediterranean food and Japan’s traditional Hwashoku are also registered as the Heritages. What is important here is that kimchi is on the Representative List of the Intangible Cultural Heritage; in other words, it is recognized as one of the representative intangible cultural heritages of the world.

To be included on the Representative List of the Intangible Cultural Heritage of UNESCO imposes various duties. More than to have the world know of kimchi and kimjang and to expand consumption, it should serve as an opportunity to safeguard them and develop them by allowing kimchi-making to be possible in various other cultures whose condition and life style differ from Korea.
**Efforts to continue Kimchi and Kimjang culture**

Kimchi is known to be a tasty health food and kimchi lovers are rapidly increasing. But modernized Korea witnessed a rapid decrease in the number of women who can make kimchi over the past 30 year period, and kimchi importation from China continuously increases. It is an irony that amid increasing eulogies to kimchi, women who do not know how to make kimchi or who are not willing to learn a kimchi recipe is rapidly increasing. Lack of understanding, lack of appreciation of the value of homemade kimchi and the general public’s attitude ‘why not imported factory kimchi, it is inexpensive and easy to buy’ were the causes of the decrease. The second reason is that women’s labor has been undervalued.

A full time mother with a higher education and frustrated over being undervalued labor at home, encouraged her daughters to have jobs competing with men in society and to develop their own professional careers rather than teach them kimchi recipes and the management of household chores. Lastly, changes in housing lifestyle, nuclear family, and convenience-oriented lifestyle didn’t encourage kimchi making at home. Apartment living hardly allows for salting voluminous cabbages, or for several people make kimchi together in the limited space.

Registration as the Cultural Heritage of the UNESCO provides an opportunity for serious thoughts on the preservation and continuation of kimchi and kimjang culture. Modern capitalism society has very different life style from the past, and it witnesses emotion work, care labor, purchase of intimacy, and nostalgia industry keep expanding. In this regards, industrialization and commercialization of kimchi and kimjang industry is expected to continue to develop. Questions seem to be, how to continue kimchi and kimjang culture, what are the possibilities, what changes to accommodate to sustain kimchi and kimjang culture in the future.

10 “I do not know how to make kimchi’ is not limited to the young women. There are mother-in-laws who say the same thing.
The invention of Dimchae and its success is worth special attention. As previously mentioned, the kimchi fridge first appeared in 1984, but it didn’t have commercial success due to small demand for it. In 1995, the kimchi fridge reappeared under the brand name ‘Dimchae’, and was a huge commercial success.

We pay attention to Dimchae neither because of its business success nor its technological development, but its significance for the future of kimchi, kimchi-making and winter kimchi making. The kimchi fridge (under the brand name ‘Dimchae’), though not enough for large quantities like kimjang (winter kimchi making) to go through winter, it made possible small amounts of kimchi-making for each household when apartment became the overriding residential space. Since the success of Dimchae, many kimchi fridges followed and enabled making kimchi at home, keeping them, and managing them to maintain the best taste for as long as possible.

Prior to Dimchae, even when kimchi was made at home, there was no suitable place to keep it in an apartment. If it is kept in the refrigerator, the fridge is saturated with strong kimchi smells. Kimchi taking up too much space was another problem. In Korea, a house facing south is considered ideal, and many apartment buildings have been built based on this concept. In an apartment with an excellent heating system and facing south, it was hard to have kimchi fermented to the optimum level and keep it as long as possible. People either do not make kimchi at all or if they do, just small amounts has a lot to do with apartment living.

Dimchae and other kimchi fridge developments took much effort, and while it was but an application of the existing technological achievement, it solved one serious problem in the modern Korean’s everyday living. The first kimchi fridge was developed by the Gold Star Company but as it was far too early than the needs of the times, and failed. Dimchae made a successful comeback and is continuously
improving in size, function, and better design.

More kimchi fridge advertisements since Dimchae led to increased interest in kimchi taste, look, and quality, and it in turn is expected to lead to increased interest in better quality ingredients, condiments, and kimchi recipes.

Dimchae and other kimchi fridges stand for a very important technological development for the continuation and further development of kimchi and kimjang culture. Though they don’t represent a technological renovation, from a sociocultural aspect, they have made a significant contribution, maybe deserving of a cultural medal.

For the continuation and development of kimchi and kimjang culture, other than technological renovation represented by Dimchae, there may be limitless possibilities; development of various new ingredients, development of new menus using kimchi, studies on foods that go well with kimchi, development of various social exchange network of kimchi, and others.

There might be numerous answers to the question made at the kimchi Symposium by Lee Uk-jong, producer of a famous TV program <Noodle Road> “Of many Korean foods, why has kimchi become a representative food of Korea?” I guess three explanations are possible.

First, Japanese and American, the cultural others Korea had been exposed to in the course of the modernization, didn’t eat kimchi and Koreans were made fun of a lot on account of the kimchi smell. After Korea successfully made a rapid economic growth, hosted the Asian Games and the Olympic Games, Koreans came to have a great sense of self-confidence to the point of recommending the Japanese and Americans to try kimchi, which is a healing process of a trauma satisfying their grudges.

Second, kimchi is interesting. Third, kimchi is erotic.

Fun kimchi starts from its spicy taste. Hot pursuit can be strange. Spicy kimchi triggers pain in the tongue and mouth, sometimes in the stomach
and anus. However, spicy taste is addicting\textsuperscript{11}, and people sometimes want it spicier at the risk of their health. People sometimes compete for who can eat the spiciest foods.

Third, ‘erotic’ is related to the sexual significance of pepper for its shape and spicy taste. A famous Korean expression ‘small pepper is spicy’ is often used with a sexual connotation ‘small but strong’. The expression is also used to describe a competition between small Koreans who were poor and could eat only kimchi and pepper paste and tall westerners who could eat meat and butter. Likewise, a small pepper has various connotations. I have discussed on this subject in my article in English\textsuperscript{12}. Though it was not anticipated, in Japan in recent years, kimchi and pepper became popular as they are said good for stamina, bringing up limitless potential for kimchi and pepper.

The above three reasons provide us clues to ‘what to do’ for globalization and commercialization of kimchi. The food is more than taste, nutrients and calories. It carries significances, symbols, and selection of a food, preparation for it, and consumption providing limitless subjects for studies and developments.

\textsuperscript{11} Naj, Amal, peppers: A Story of Hot Pursuits, New York: Knopf, 1992
Humanistic Understanding of Kimchi and Kimjang Culture
Kimchi and Kimjang Culture

Kimchi and Kimjang culture is a unique folk culture of Korea that is still going strong in the 21st century, and in 2013 its value has been recognized by the UNESCO as Intangible Cultural Heritage of Humanity.

Different from thus - far kimchi studies focused mostly on natural science aspects, kimchiology is a new comprehensive academic field encompassing humanistic perspectives of kimchi such as history, culture, arts and others as well.