

A BRIEF SKETCH OF THE GEOGRAPHICAL FEATURES OF THE SOUTH CHINA

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PREFACE

The writer of the present article had occasion to visit several parts of the South China and get a general survey of the geographical features of those localities in 1942-1946. After the close of the Second War he could manage to bring back his documents, and he has published some parts of his records in several magazines of the societies concerned, and now he wishes to give here the sum total of the researches he made during his stay in those parts of the continent.

Pronunciation of the place names are in the present article is shown in Cantonese which is the dialect of the South China.

Kwonchaw (廣州) is well-known as the most important city in the South China, but not very much is known about its neighbourhood owing to the extreme inconvenience of traffic overland and the present research was made mainly through observations gained from the cruise made by ships through rivers. The investigations of those parts where it was inaccessible by ships they were made by traversing those parts on foot.

Kwonchaw is situated on the Chukong (珠江) at its river-mouth. This

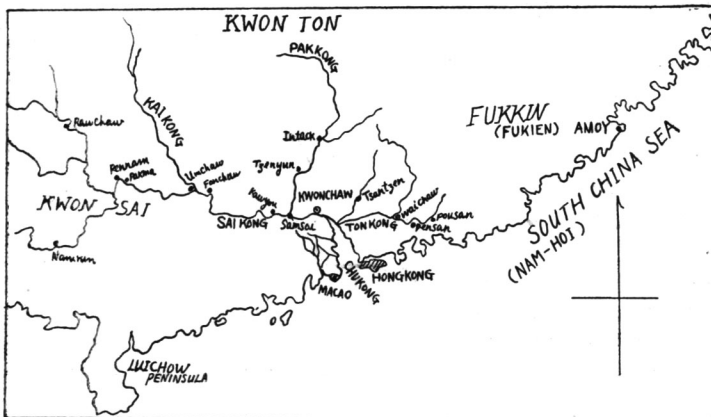


Fig 1. Outline map of The South China

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river has three tributaries. From the west comes the Saikong, (西江) from the north, the Pakkong, (北江) and from the east, the Tonkong (東江). The former two are brought into the Chukong at Samsoi. (三水) The latter pours itself into the same at Tonkwan. (東莞) Those areas watered by these rivers have peculiar characteristics of their own, and have very much to demand our attention from the standpoint of geographical landscape.

THE AGRICULTURAL AREAS ALONG THE SAIKONG VALLEY

All the rivers rise in Myurin (苗嶺) in Kwaichaw, (貴州) the mountainous area of Wamnam, (雲南) and the boundary lines of North Viet Nam, and a long and narrow strip of valley stretches from here to Samsoi. From Samsoi towards the lower stream of the river lies what is commonly called Chukong-Delta which covers quite a wide tract of the paddy-field. The Saikong cuts through the Ronmun Hill (甯門山) in about middle between Samsoi and Kawyou. (高要) And this hill marks the dividing line between upper and lower streams. Along the upper streams the arable land is restricted only to the terraces along the banks on both sides of the river where the agricultural activities are carried on in only a very small scale.

Let us now follow up this valley from the lower stream of the river and study the changes which characterizes the locality up to Pakma (白馬) which occupies the entrance to the basin of Pennam. (平南)

The Chukong-Delta is covered all over with the paddy-field, where the rice is harvested twice in a year in a very large scale. This extensive area form the source of food supply to all parts of the South China. The water ways stretch out in all directions, so that transports by water are very conveniently carried on. The productive capacity of this extensive field can be attacked to the utmost degree. Generally speaking, the paddy-field is surrounded by strong banks built round it. Even those pieces of the field which come in close contact with the brink of water which rises and falls at regular intervals are under careful cultivation. Water supply is made by canals by the use of wheels, through the deltaic projecting end, of which the water flows out quite freely.

The field occupies a rather higher part of the territory and sweet potatoes and vegetables like Wontzai (雍菜) and Lin (蓮) are cultivated. In those pieces of land where it is law and damp, other suitable vegetables are grown.

Round Kwonchaw up in the north tendency towards the suburban cultivation is seen. In the damp and low parts of the field several other water-vegetables are raised. On the undulating height called Kon(岡)

near Chukong sweet potatoes are chiefly cultivated. Up in the further north, on the height extending towards the east of Pattkong, water is supplied by means of the wells with water-sweep. But such flat-land and cultivation ceases to be seen near Kawyou towards the coast of Saikong, and the paddy-field is seen only in the valleys along the tributaries and the fields are found only in terraces and gentle slopes. In the wide area which covers the lower stream of Saikong towards the boundary-lines of Kwonton (廣東) Province, very little is made of producing crops for the purpose of supporting the inhabitants of the province itself. The productive activities are exclusively and vigorously carried on in those parts of the country where the commercial influence of Kwonchaw is most keenly felt. Accordingly, the best arable land is given to the cultivation of sugar-canes, and coarse sugar is produced in various factories found at a distance of 300-500 metres, and the unrefined sugar is transported to the towns along the small tributaries and carried to Kwonchaw by ships along the Saikong.

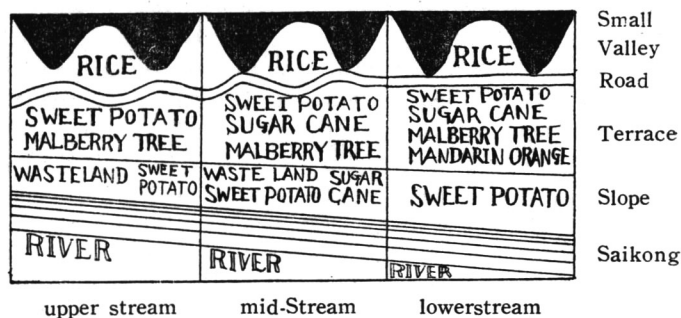
Sloping grounds are chiefly covered over by sweet potato field.

Mulberry-trees, and fruit-trees are planted here and there in such fields. Around the small villages, vegetable-fields are seen.

The sericulture is vigorously carried on in the Saikong Valley. Also, special kind of persimmons, shaddocks and oranges are raised, and they are exported, and form an important subsidiary business, and they are said to be the foundation of the cash-crops. This state of things prevail throughout from the lower stream up to the locality between Konghaw, (江口) west of Fonchun (封川) and Umchaw, (梧州) a chief city in the frontier of Kwonsai (廣西) Province. Towards the upper stream, the whole area is characterized by intensified spirit of self-supporting production of crops and vegetables. In other words, chief attention is paid to growing rice and sweet potato in the best part of the field, and sugar-canes are cultivated on the slopes only. In those parts of the country where we have seen, the paddy-fields in the dotted valleys were fed with watersupplied from streams flowing a little higher, but these are now given a better, and terraces and the sweet potato field comes to occupy a far larger tract of land. The cultivation of fruit is carried on in a smaller scale. This state of things is seen in the area between Konghaw village in the west of Umchaw and Taichi (大地).

This is but a small piece of land, but such a change can most clearly be seen in this part of the country. In the upper regions from here, economic foundations are placed equally on the self-supporting production and the cash production, and rice and sweet potato are only raised and no sugar-canes are here cultivated. The paddy-field and sweet po-

Fig. 2. Land utilization on the River-terrace (The Saikong)



tato field on the terraces are greatly increased and the sweet potato field on the slopes are now remarkably decreased, and the waste land now occupies a much larger tract of land. To sum up the above statement briefly, the result will be found in Fig. 2. This usage prevails as far as the entrance of the basin of Pakma, and shows a different view to that common in the villages in the remote parts of the country excepting in the Pennam and Namnin (南寧) in the upper stream, Mowchun (武宣) and Rawchaw (柳州) Pasin.

Let us study the case of the Pakma Basin for an example. A considerably wide basin lies between Pakma and Tsamchaw, (潯州) the centre of which is occupied by Pennam Basin, and the eastern part of which is subdivided into two by a hilly ranges of old-stage and those subdivided regions contain each Pakma and Wonnoi. (黃泥)

In the basin of Pakma, the surrounding mountains are sparsely covered chiefly with pine-trees, and the arable land stretches far away into the basin. In the field at the foot of the mountains, cultivated field forms terraces, and near the villages in those parts vegetables are grown, and every village has wide thresh-grounds. In the basin the chief product is the rice, and all the flat land is turned into paddy-field. Water is not supplied by the small stream flowing through the middle of the field, but many canals are constructed in the boundary-lines between the paddy-field and the vegetable-field, and the water flowing out of the earth is gathered in the ponds from the foot of the surrounding mountains, for the purpose of irrigation of those parts. Sweet potatoes, taroes, cotton and cassava are cultivated in different divisions of the field. These are grown solely for the support of the inhabitants themselves of those localities. But the considerable part of the place is still left uncultivated, and the case is the same with the Pennam Basin. Bed rocks jutting out here and there and the shortage of labour are

the causes of the neglect of exploiting work in those parts. Towards the upper stream in Tsamchaw rice is harvested only once in a year, and cereals are chiefly cultivated instead in those remote places.

THE CULTIVATION IN THE VALLEYS OF PAKKONG

Starting from Samsoi and traveling up along the Pakkong we find Paknaisoi. (白泥水) and Tzeknaisoi (赤泥水) which flow from Rowpaw (蘆苞墟) on to Kwonchaw. And in the southern part of these rivers water transport is very highly developed, and on the east side hilly districts stretch as far as near Kwonchaw. These hilly or lower hilly districts trees are very scarce and no arable land can be found. The paddy-field covers the tract of land just inside the banks and the higher piece of ground is cultivated as field. In the west the Wishi (廻岐) Range stretches side by side with the stream, and still further in the west there lies the valley of Taitawkon (大頭岡) between the Tairin (大嶺) and Taisanton (大生塘) soaring in the still further west, and through the valley there is found an old river-bed which is supposed to be the former passage of Tawkonsoi (頭岡水) which is now the branch stream of Pakkong and now flows on to Rokwa. (鹿和) The southern half of the place forms a marsh and no good paddy-field is seen. To the west of this Tairin there stretches the valley of Seiwi (四会) and in the valley there is the Soikong (綏江) which empties itself into Pattkong on the opposite side of Rontawhoyu (竜頭墟) and the Ronkong (竜江) which joins the Soikong at Seiwi.

It is noticeable, in this valley, that one specified vegetable is uniformly cultivated throughout the whole locality instead of raising various kind of different vegetables as in the neighbouring districts of Kwonchaw, and especially in winter large tract of land is covered all over with potatoes and radishes. These products, together with the peanuts and sweet potatoes in summer, are mostly sent to Seiwi and are further sent to Kwonchaw. The north of this valley is occupied by low hilly districts and borders on the Tzenyun (清遠) Valley and the Pakkong takes a shape turn towards the east. The Tzenyun Basin is the old deposited surface of the Pakkong which takes its turn at Wonshekhoyu, (橫石墟) and the lowest portion of the basin is turn into paddy-field and the surrounding and slightly higher parts are covered with wheat sugar-cane fields. In winter in these parts wheat is grown after the harvest of the rice. In summer season on the field, peanuts, taroesr and vegetables form the chief products cultivated in these parts. Sugar-canes are abundantly cultivated in the west side of Keenkong, (建江) which flows into Pakkong at the west side of Tzenyun, and the eastern

half of the place is covered with the paddy-field which is supplied with water from the reservoir and the districts around the place are the field where is supplied with water from the stream and there three different vegetables are grown in succession every year. Pigs are raised in large numbers by the farmers of this neighbourhood. On the eastern side of the basin, the Pakkong flows through the steep Kipsan Hill, (峡山) and towards the upper parts of the river flat lands very scarce and in those hilly districts paddy-fields are found here and there, but wheat-fields are growing more and more scarce. On the hilly districts between the basins of Tzenyun and Intack (英德) sugar-canes, sweet potatoes and wheat are grown, all in small scales.

The Intack Basin is a spindle-shaped basin and Intack (Intzen) occupies its centre. The surrounding hill-side are all covered over with copse-woods. On the terrace-fields are seen growing sweet potatoes, wheat and sugar-canes. In the neighbourhood of the villages are found vegetable-fields in small scales. They present the scenes somewhat similar to those in the Tzenyun Basin. What characterizes these parts are the mandarin-orange fields which extend for a considerable distance in all directions. These are entirely similar to those found in the Saikong Valley, and these fruits are very popular in the vegetable-markets in Kwonchaw, as "mandarin-orange from Intack." The rivers in the South China present very different depths according to the different seasons, as will be shown later. They show marked differences between the dry season which covers autumn and winter, and the rainy season which covers the spring and summer. Because of these changes the terracefields and its slopes along those rivers cannot be put to a full use. that is, cannot be fully used throughout the year. In the basin, remarkable increase of floods make it impossible to make a full use of it.

In this Intack Basin I happened to find some records regarding the different water-levels caused by the flood in the Pakkong. Let me give a brief account of this phenomenon here. It was found on the wall of a farmer's house. The house stands some thirty metres above the average level of the water of Pakkong. The records on the wall show the highest level of water which visited those parts on May 27th in 1915 and on May 18th, in 1931. On the former occasion the water reached three metres above the base of the house, and the water did not subside for several days, it is said, and on the latter occasion the water reached 1.5 metres and subsided the next day. These two days both occur in the rainy season, surmised from the topographical map, (1:100,000) all the basin must have been covered over by these floods.

I have tried every means to find out the name of this village, but I have failed to identify it. Such phenomena, together with what I have myself experienced in the Tzenyun Basin during the rainy season, go far towards seriously affecting the productive activities in the basin.

Up from Intack again there lies a long and narrow strip of river-bank and at Pakkong the confluence of the Tsuenkong (瀆江) and Mowsoi, (武水) there is found spreading a small piece of flat land, and along the Tsuenkong there are found small basins of Toipin (始興) and Namhon (南雄) and along the upper stream of Mowsoi there are found Lo-wchon (樂昌) and some other small basins.

THE AGRICULTURAL AREA ALONG THE TONKONG VALLEY

Shikron (石竜) and Tonkwan are the chief rice-producing areas, and are on the Chukong Delta, and rice-fields stretch in every direction. They form the important granary along the Kwonkaw (広九) railway line, but in the villages near the hill side only some specified products are cultivated. Paddy-fields are found on the terraces, and the hillsides a little higher are turned into terrace-fields, and sugar-canes, sweet potatoes, taroes, peanuts and peas and beans are grown besides some other vegetables. Along this river of Tonkong are found the special products, Raichii (荔枝) and Saree (沙梨) on the hillside towards the upper stream. The former are first found in the copse-woods here and there on the uppermost parts of the rather stiff hills. In the neighbourhood of Chonmoktaw (樟木頭) farmers grow vegetables near their villages for use in their own house, and on the ground at a little distance they have pear-fields of considerable size, and the Raichii fields occupy the most distant places from the village. And as subsidiary work, pigs are raised in rather a large scale. This reminds us of the state of things seen in Tzenyun Basin in Pakkong. What differs in paddy work from that in Saikong and Pakkong Valleys is that no special nursery-bed is allotted in these parts, but instead, one corner of the field is marked off by about 10 metres square. Such a device is found in various places throughout the locality. Hence, no large piece of field for rice culture can be found in distant places. A narrow strip of cultivated field continues between the delta zone and Waichaw (惠州) Basin which is the central agricultural area in the middle parts of Tonkong. Tobacco is cultivated here and there in these parts. This becomes more and more conspicuous in the hillside about ten kilometres from Chonmoktaw. The Raichii field is found cultivated from these neighbourhoods to the sloping sides of the hills and down to the terrace fields,

and near the villages, pears are also cultivated in places intermingled with it. Near Kantonhyon (欣東鄉) lower down from Waichaw by about twenty kilometres, tobacco cultivation grows less and less while rice culture is seen to be carried on in larger scale.

In the Waichaw Basin lies the city of the same name and Waiyon, (惠陽) stands opposite to it, and there the main river of Tonkong and its tributary, Saikong (different from the one of the same name cited above) confluence. Waichaw Basin has a vast stretch of fields where rice is mostly cultivated except in the central parts where they are covered with undulating surface. This vast field is covered with paddy-field which is regularly marked with boundery-lines running from east to west, and from north to south in checkered form. In the central parts, however, low and damp hollow grounds and ponds are found, interspersed in various places, and in the distant places from the villages a considerable dortion of barren land lies neglected. In some parts, crops can be grown only once a year. The shape of the field and the inundation from Tonkong, together with the insufficient work-hands prevent the complete development of these parts. Wheat, peanuts, sweet potatoes, taroes and beans are mainly cultivated.

Villages are found in the environs of the fields where they are protected from the winds by nhe shelter-belt of Raichii and other trees.

Towards the upper stream from the Waichaw Basin paddy-fields and tobacco fields on the terraces, wheat and other fields on the table-land are regularly allotted.

Along the Tonkong such a scene stretches as far as Sanfon (新豐) and Ronchun (竜川) while along the Saikong (latter) stretches as far as Pensan (平山) and Pousam. (埔心) Raichii is cultivated most extensively alog the Tsankong (增江) which is the small branch stream of Chukong. In the early summer, "Raichii from Tsantzen (增城)" is specially popular in the fruit market in Kwonchaw. Pears, Raichii and other fruits are most popularly cultivated in Waichaw Basin, Tsantzen Valley and the surrounding districts. Sugar and tabacco are also commonly cultivated. From the towns on the sea-coast, like Rimsan (稔山) and Taichaw, (太州) salt is manufactured and sent through Waichaw to inland parts. It is then sent to Kwonchaw by water.

TOWNS AND VILLAGES IN THE ESTUARIES ALONG THE VALLEYS

The life of the people who are destined to be borne on, live by, and pass out of existence from such a life in the South China affords us a mystery to solve, and a fitting subject for study in the human geog-

raphy. Those people form a moving society on the water. And the group of boats form so to speak, a settlement on the water. Rivers and canals afford them most convenient means of transport and communication. Those people settle down in certain spots on such water for life and keep in touch with the society on the land.

The market towns on the estuary show remarkable development everywhere. Such is the case specially with those situated on the estuaries where a main stream joins a branch. Such places as "Soi-haw", (水口) "Kon-haw" (江口) or "Ho-haw" (河口) have the word meaning 'river-mouth', 'water-mouth'. It is not too much to say that almost all the local market cities and towns in the South China are included them. It is true, of course, that such examples are not altogether wanting in our own country like 'valley-mouth town' or 'fery-town' and in other parts of China. Such towns are often found where rivers join, or at the uppermost end of the ship's course or at the juncture of traffic, but in the South China such characteristics are specially found in places where the tributaries join the rivers. Let me now give a brief account of such places.

The products from all the districts of the South China are carried either by small streams or borne through the inconvenient land route till they are brought to the small towns. These towns situated on the riverside have only the stoe-steps to the stream. In such towns no commercial transactions can conveniently be carried on as in the market-towns ofund in the estuary. All the materials or products which were gathered in these towns from the remote places are carried to the estuaries by small boats. All the estuaries have landing stages which push far out into the water, and storehouses are usually attached to them. On the opposite side of the roads stand shops of all kinds in rows along the terraces. In the corner of the river-bank are seen rows of street and houses in parallel lines. Smaller towns lie along the tributary, while larger ones stretch far to the main riverside. The accompanying illustration will show how these towns are arranged. (Fig. 3.) But it is thought that these towns cannot have passed through all the stages of development in reaching the final and prosperous state which some of them are now enjoying.

They have grown what they now are through the peculiar state of things or circumstances under which they are placed. The table 1. will serve to show the three large valleys with chief towns in the estuaries in them. This will show that the first and third types are more common, and that the second is very rare. The fourth and fifth types do not afford so many instances, but they have grown out from

ferries. Towns with larger population does not necessarily fall under the category of the fifth type, and those with smaller population fall under the category of the first and third types. No few reverse cases can even be found often. As mentioned above, the towns on the estuaries can enjoy full development from the fact that they sometimes form ships' destinations or land and water forces come in contact with each other. It is generally thought that all the waterways in the South China are entirely freely navigable. But this is not really the case. The volume of water is greatly different in dry and rainy seasons, and deposition at the bottom of the rivers is different. The skill of sailing by the people greatly differ according to the place of their activities. In the estuaries of the tributaries products are brought together from various places through large rivers or distributed through them, while small rivers serve only as the place where ships can lie at anchor. Water-settlements grow where streams meet together, and in such places piers are constructed in large scales. We can give as example, Umchaw which is one of the large cities belonging to the third type. (Fig. 4.)

Fig. 3. Types of Settlements in the Estuaries

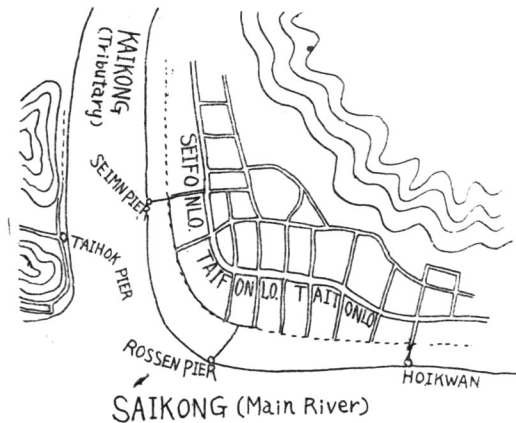
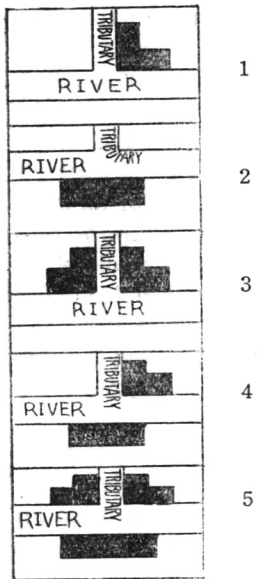


Fig. 4. Outline map of Umchaw

Table 1.

River	City & Town (in Estuary)		Type
SAIKONG (西江)	Soihaw	水口	3
	Hohaw	河口	5
	Rotinkonhaw	羅定江口	1
	Konhaw	江口	1
	Umchaw	梧州	3
	Konhawchun	江口村	1
	Tonyun	藤縣	5
	Pakmahn	白馬圩	4
	Tancheck	丹竹	1
	Pennam	平南	5
	Tsamchaw	潯州	3
PAKKONG (北江)	Rontawhoyu	龍頭墟	2
	Seiwi	四會	3
	Rowpawhoyu	蘆苞墟	1
	Rokwa	鹿和	1
	Tzenyun	清遠	1
	Rinkonhaw	蓮江口	1
	Intack	英德	2
	Kokong	曲江	3
TSUEN KONG (潯江)	Namhon	南雄	1
	Konhawkn	江口圩	1
	Toipin	始興	1
TON KONG (東江)	Waichaw	惠州	3

Its main streets are Seifonlo, (四坊路) and Taifonlo, (大坊路) and towards the east from Taitonlo, (大東路) the city grow less and less populous till it is quite a lonely outskirts district. Again, between the piers at Seimn (四門) and Rossen (律成) many piers and ships are found, but between Rossen and Hoikwan (海關) nothing worth mentioning can be found. With Kaikong (桂江) in the middle, on the west side, with the Taihok Pier (大學碼頭) in the middle, the street is restricted by natural features from growing, and a small strip of

street lie along the main stream.

The chief city of Intack which lies on the Pakkong falls under the description of the second type. The tributary which flows into the Pakkong at the opposite side, though it is easily navigable, is entirely unfit as place where ships can stay at ease from the shape of the mouth. So that the other small stream along the stream is fit only as place for ships to stay. So the railway from Kwongchow to Hankow, (漢口) which is very important main line in the South China, passing through the west side of Pakkong branch itself into two lines, the branch line of which reaches the Intzen Station (英城車站) at the river-mouth of the tributary where is no village, and the main line is not directly connected with the center of Intack

To sum up, the cities and towns at the river-mouth in the South China have very peculiar characteristics which afford a very interesting subject for study in the field of social and economic geography. And they also afford a very interesting theme for the study of settlement geography. Much is still left for further study in these directions. From one point of view, the [metropolis of Kwongchow may well be regarded as part of the market-town on the estuary in the wider sense of the word. It may also be regarded as simply a central city or market-town in the basin. All the development may have traced such a course. Future researches will make the matter clear to the scholars.

CONCLUSION

We have only jotted down what little that have come to our notice regarding the three great tributaries to the Chukong, the Saikong, the Pakkong and the Tonkong. The writer has to beg humbly the pardon of the courteous Readers for his fragmentary and incomplete treatment of the subject. These districts are the virgin soil where geographical researches have yet scarcely been carried on. But this part of the world is full of interesting subjects for study, and many new branches of study are expected to be extended in future.

(February 23, 1958.)

華南地方の地理的概観

大 村 肇*

(1) 華南の主流である珠江の3大支流である西江、北江、東江の流域に沿って、地理的観察を通してそれぞれを対比し、特色をのべた。また集落の設定を特色づけている河口街（江口集落）の機能について概略をのべた。この資料は1942—1946年の調査にもとづいてる。

(2) 西江流域の農業地域

この地域は三水から下流の珠江本流によってつくられているデルタ地帯（主米作地域）、広州周辺の野菜栽培地域に続く西江谷の狭長な農作地域で、甘蔗、甘藷、桑、柑橘類の配列を通して下流、中流（2区分）上流の4つの目立った部分に分けられる。

北江流域の農業地域

(3) この流域は四会、清遠、英徳の3盆地を中心にまとまった耕作景がみられ、甘藷、小麦、米、の交錯による分布と、野菜、馬鈴薯、柑橘類の集散的分布に特色がある。

(4) 東江流域の農業地域

東江下流はライチー、梨等の果樹栽培に特色があり、増城が中心となり、惠州盆地から上流は主米作地域となるとともに南シナ海との接触地域である。

(5) 華南の農作地帯における地方的中心都市は支流が本流に交わる河口に位置し、物資輸送の中継地として船溜としての性格をもっている。それは村のような小さなものから梧州や広州のような大都市も包括していえる。

これは畚民社会の機能と結びつけて考えられなければならない。

(6) これらの地方の人文的な活動はすべて広州を中心とする勢力圏の中に含めて説明できる。

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華南に関する地理学的資料は甚だ少いので、本稿が何らかの参考となれば幸いである。筆者が広州で約3年に亘って集めた資料は終戦とともに全部失ってしまったので、この資料は僅かに携帯して帰った調査ノートによった。英文で記した理由は1957年のR. C. G. の際、来日の諸学者から要望されたからである。