

# THE ECONOMIC HISTORY OF JAVANESE RURAL SOCIETY: A REINTERPRETATION

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THIS paper attempts to reexamine Javanese agriculture and the economic history of Javanese villages in light of new observations derived from various field studies, including my own, carried out recently in Java. More specifically, this essay is an attempt to establish a new viewpoint from which the process of historical change in Javanese villages from the nineteenth century through the establishment of colonial rule and its disintegration may be analyzed. Essentially, this involves theoretical speculation; this study does not pretend to be an empirical analysis.

Among the numerous works on the economic history of colonial Java,<sup>1</sup> *Agricultural Involution* [11], written by an anthropologist, Clifford Geertz, merits foremost attention as a rigorously systematic handling of the material within a consistent theoretical framework. Together with other works by this versatile author touching on such broad areas of Indonesian life as religion, sociology, and politics, this particular volume continues to influence many specialists working on this island country.

Recently, however, there has been a rising tide of criticism among researchers of contemporary Javanese village life (primarily agricultural economists, rural sociologists, and those in related fields) concerning the relevance and usefulness of the Geertz theory as presented in this celebrated work (the concepts of *agricultural involution* and *shared poverty*, in particular, are seen as problematic). In this article, I will first summarize the theoretical framework within which Geertz treats the economic history of Javanese village in his book and then consider the more recent criticisms of this model. Lastly, an attempt will be made to reevaluate the direction historical studies of Indonesia have taken in light of current research.

## I. GEERTZ'S CONCEPTUAL FRAMEWORK

"Agricultural involution" and "shared poverty" (definitions given below) are the two basic concepts in the theoretical model Geertz sets up to explain the economic history of Java. To provide a historical and structural basis for these two notions, Geertz develops two lines of argument. One is the ecological argument con-

<sup>1</sup> See, for example: J.H. Boeke, *Economie van Indonesië* [1]; D.H. Burger, "Structuurveranderingen van de Javaanse samenleving" [3]; J.S. Furnivall, *Netherlands India: A Study of Plural Economy* [9]; and G. Gonggrijp, *Schets ener economische geschiedenis van Indonesië* [13].

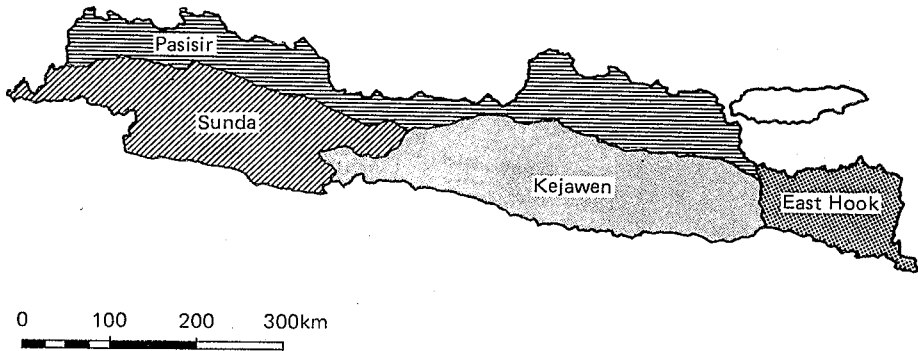
cerning wet-rice cultivation (*sawah*) as opposed to slash-and-burn, or swidden, agriculture, and the other the dual economy argument. This latter asserts that the foreign sector (the capital-intensive sector producing agricultural produce for export) and the native sector (the labor-intensive sector producing subsistence crops) were separated and coexisted during the period of Dutch colonial rule, ultimately producing a fixed, dual structure in the Indonesian economy. Geertz probably opted for this two-tier approach in order to account for the situation then prevailing in Javanese villages and in order to better assess their prospects for the future—quite gloomy and pessimistic. First, he confirmed the existence of an inherent trend toward agricultural involution which arose from the technical characteristics of *sawah* cultivation itself. He then traced the process by which this dormant factor evolved into a fixed, almost irreversible and self-perpetuating pattern during the period of colonial rule. Let us first examine Geertz's line of reasoning.

In developing his ecological argument, Geertz divides the country into two geographical regions, "Inner Indonesia" encompassing Northwest, Central, and East Java, South Bali, and West Lombok, and "Outer Indonesia" made up of the Outer Islands plus Southwest Java [11, pp. 12–15]. These two parts are distinct in terms of population density (high density for the former and low for the latter), land use (intensive in the first case and extensive in the second), and agricultural productivity per unit of land (high in the former instance and low in the latter). These differences are accounted for by the different ecosystems as represented by the form of agricultural production, i.e., the *sawah* system in "Inner Indonesia" vs. the swidden system in "Outer Indonesia."

From Geertz's ecological viewpoint, the essential difference between the two lies in how each system responds to a rising population. The response of the swidden system to population growth is dispersive and inelastic, absorbing additional people by outwardly enlarging the area under cultivation, while that of the *sawah* system is concentrative and inflatable, absorbing more people by intensifying cultivation on a fixed land base. Crucial to the latter is the improvement of the supply and control of water. There is a special kind of dynamic at work here, such that improvements in cultivation methods allow more labor to be employed per unit of land, leading to an increase in production [11, pp. 28–37].

Using this scheme as a hypothesis, Geertz goes back to the origins of the ancient kingdoms of the eighth century to examine the factors that have contributed to the development of *sawah* cultivation in Java. He surmises that *sawah* cultivation first took root and expanded in the fertile and easily irrigable river basins of Central and East Java located at the base of volcanoes. The island of Java is divided into four regions according to the presence or absence of the natural and geographical factors which make for the steady diffusion of *sawah* cultivation. First and foremost among these is the capacity for supplying and controlling water; a second major factor is the fertility of the land. Kejawen is the region most favorably endowed with these factors, followed by Pasisir, where water abounds but drainage is difficult. In Sunda there is an adequate supply of water, but the land is not particularly fertile, and East Hook, which has neither fertile

Fig. 1. The Regions of Java according to Geertz



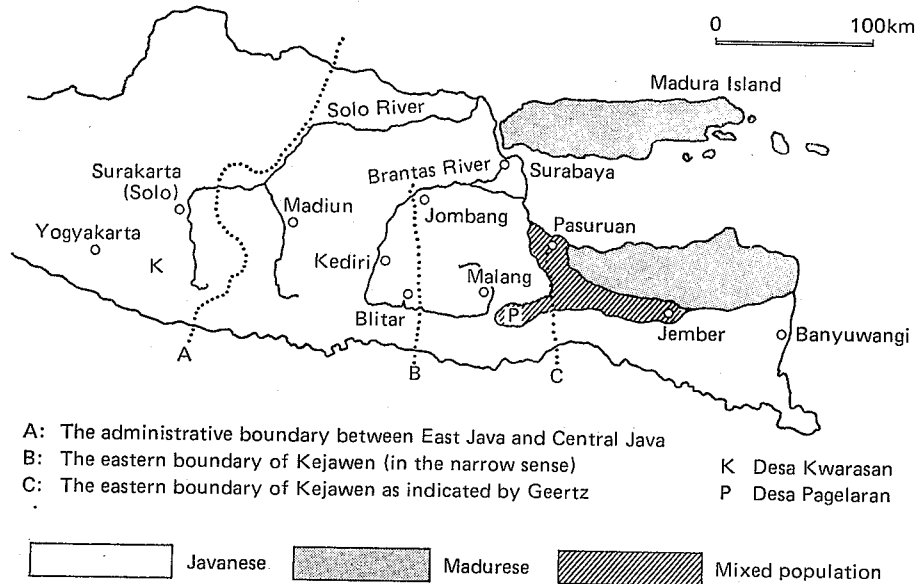
Source: Geertz [11, Map 4].

land nor a good water supply, comes last (see Figure 1).<sup>2</sup> Geertz is most interested in Kejawen, a region appropriately designated as Java Proper, where Geertz sees the dynamics of the *sawah* ecosystem operating in the most ideal, i.e., typical, manner. His argument is that this process was further promoted under the system of colonial rule until it crystalized in the pattern Geertz calls “agricultural involution.”

This process proceeded in an irreversible manner as the system of colonial rule evolved. With respect to this system, Geertz, apparently conscious of Boeke’s

<sup>2</sup> Despite its apparent clarity and validity, this geographical division seems ambiguous in a number of ways. Of immediate importance is the meaning of the term Kejawen (*kejawén=ke-jawi-an*): In its broad use, it originally meant “the areas where Javanese live” (*latah [wewengkon] ing wong-wong Jawa*) (see the item “*kajawan/kajawén*” in W.J.S. Poerwadarminta, *Baoesastra Djawa* [25, p. 179]), while in the narrow sense of the term it meant “the land which still mostly belongs to principalities (Surakarta, Yogyakarta)” (*tanah sing isih rada kawengku ratu Jawa [Surakarta, Ngayogyakarta]*) (see the item “*kejawan*” in [25, p. 83]. In both cases, the term was a geographical concept based on political and cultural factors, and not a term used to designate natural factors. Furthermore, the personal experience of this writer is that the eastern boundary of Kejawen runs farther west than Geertz has shown, being in fact closer to Jombang and Blitar (see Figure 2). The area east of this boundary is inhabited by Javanese but seems distinctly different from the area indicated by the narrow sense of the word in terms of language (dialect) and culture (customs and values). In natural and geographical terms, we must not overlook the fact that Kejawen includes in its designated areas places where the shortage of water is chronic and where dry field rather than wet-rice cultivation prevails (e.g., the hilly area along the southern shore—Pegunungan Kidul). With respect to Pasisir, its original meaning of “seashore areas” (*tanah-tanah kang cedhak karo segara*) gradually changed to mean “seashore areas on the Sea of Java” (*tanah-tanah sauruté segara Jawa*) and by extension “the areas outside of Kejawen (in the narrow sense)” (*wewengkon sajabaning tanah kejawan*) [25, p. 475]. Geertz attributes the general ecological characteristics of this area to difficulties in drainage. This, too, is subject to reexamination.

Fig. 2. The Boundary of Kejawen



- A: The administrative boundary between East Java and Central Java  
 B: The eastern boundary of Kejawen (in the narrow sense)  
 C: The eastern boundary of Kejawen as indicated by Geertz

arguments for a dual economy, points to the mal-integration of the export sector with the domestic sector as the basic characteristic of this economy and maintains that the superimposition of a colonial export-oriented agriculture upon the existing ecological pattern most distinctly and consistently characterized Dutch colonialism between 1619 and 1942 [11, pp. 47–49 et passim].

The takeoff and further development of the export sector, the surface layer of the economy, so to speak, actually prevented the takeoff and modernization of the domestic sector, or the base structure of the economy encompassing a large segment of the Javanese peasantry. Failing to achieve takeoff, the internal dynamic of *sawah* cultivation asserted itself unhindered, resulting in agricultural involution. This entire process is examined by Geertz who divides Javanese colonial history into three separate periods and equates them with three stages of development. These are (1) the period of the East India Company (from the seventeenth to the eighteenth centuries), (2) the period of the Culture System (1830–70), and (3) the period of the Corporate Plantation System (1870–1941). He concludes that it was during the second period that the dual economy pattern was firmly established and that, as a consequence, involution began, and that it was in the third period that, with the persistence of economic dualism, involution attained its highest development [11, pp. 53, 69–70, 83–86].

What Geertz sees as decisive here is the introduction in about the middle of the Culture System period of sugarcane which replaced coffee as the staple export

crop and subsequently exerted a powerful influence on the Kejawen region in particular.<sup>3</sup> Geertz's analysis of the influence of the sugar plantation on the local economy actually constitutes the unique theoretical contribution in the book under review. As a perennial crop requiring no irrigation, coffee was planted on newly opened fields. Sugarcane, however, being an annual crop demanding irrigation, could be cultivated on existing *sawah*, making it possible to grow sugarcane and wet rice alternately, as in fact actually happened.<sup>4</sup> In other words, the essential identity of the ecological requirements for sugarcane and wet rice led to the skillful superimposition of sugarcane cultivation on the existing *sawah* ecosystem. This enabled sugarcane production to develop while a symbiotic relationship between it and rice was maintained. Coffee, on the contrary, had been grown in enclave estates located in swidden regions [11, pp. 54-60].

A second factor making this symbiosis possible as well as inevitable, according to Geertz, was the demand for a large seasonal labor force to plant, harvest, and transport sugarcane. Wet-rice cultivation with the large population it required for ecological reasons could supply this labor force easily. Javanese peasants were thus forced into the sad plight of having to rent their land to sugar mills under long-term contracts and work at sugar cultivation for low wages. In other words, Javanese peasants were assigned the role of providing cheap labor to create wealth for the large Dutch corporations. And what made the reproduction and supply of great quantities of cheap labor possible was precisely the fact that field workers had to subsist on the rice they themselves produced and the special ecological features of *sawah* cultivation.

As sugarcane production grew, the inherent characteristics of *sawah* cultivation developed fully, providing for an unprecedented continuous high rate of population growth from the second half of the nineteenth century onward. The pattern of response to this rising population on the part of the wet-rice ecosystem is what Geertz calls agricultural involution. The concept of involution is borrowed from Goldenweiser [12] who used the term to describe cultural patterns often observed in primitive societies which, after having reached what would seem to be a definitive form, nonetheless fail either to stabilize or transform themselves into a new pattern but rather continue to develop by becoming internally more complicated. In economic terms, this represents, in essence, a pattern of technical change where agricultural production can be increased only by increasing the labor input per fixed unit of land.

After the Agrarian Law was promulgated in 1870 and as the Culture System gradually declined, control of the export sector in the dual economy changed hands from the colonial government to corporate plantations, i.e., private enterprises. Geertz maintains that the advent of corporate plantations brought about no fundamental changes but only served to further develop and eventually solidify both the dualistic structure of the economy and agricultural involution.

<sup>3</sup> Although Geertz does not say so specifically, this understanding is well warranted in view of his reasoning that Kejawen is a wet-rice area and that the chief sugarcane region is identical to the heart of the wet-rice area.

<sup>4</sup> For the typical cropping cycle under this system, see [11, p. 88, Table 3].

This process is analyzed by Geertz with the aid of the *Landbouwatlas van Java en Madoera* [Agricultural atlas of Java and Madura] [19] published in 1926. Geertz found that in the principal sugar-producing regions of Java—or “inner Inner Indonesia” as he calls it—(1) the *sawah* occupied a larger share of the total arable land than in other parts of Java, (2) the population density was higher, and (3) the yield of rice per unit of land was higher. These three features are closely interrelated. The resultant society was, in Geertz’s words, an “odd centauric social unit” with the sugar mill being the centaur’s head and the peasantry the body, the latter providing not only the land but also the seasonably variable labor supply [11, pp. 87–88].

Geertz goes on to argue that the involuntional adaptation of Javanese villages to sugar estates resulted in peculiar phenomena, which characterize Javanese rural areas even today. These were (1) the “post-traditional” nature of the social structure of these villages, (2) the intensification of communal landownership, (3) the development of *polowijo* production (“dry-season crops”), and (4) the deepening of shared poverty in the distribution of employment opportunities and income. The last item is of utmost importance, as Geertz explains:

Under the pressure of increasing numbers and limited resources Javanese village society did not bifurcate, as did that of so many other “underdeveloped” nations, into a group of large landlords and a group of oppressed near-serfs. Rather it maintained a comparatively high degree of social and economic homogeneity by dividing the economic pie into a steadily increasing number of minute pieces, a process to which I have referred elsewhere as “shared poverty.” Rather than haves and have-nots, there were, in the delicately muted vernacular of peasant life, only *tjukupans* and *kekurangans*—“just enoughts” and “not-quite enoughts.” [11, p. 97]

Rather than the rapid concentration of wealth and the formation of an impoverished, alienated rural proletariat as one finds in so many other “underdeveloped” areas, we have had in East and Central Java a process of near equal fractionization of land holdings and of the wealth which they represent. Thus the farmer has been able, by and large, to maintain his religious, political, social, and economic equality with his fellows, the level of living of all concerned has sunk.

This general pattern of response to a worsening economic situation through a division of the economic pie into smaller and smaller pieces might well be called “shared poverty.” [10, p. 141]<sup>5</sup>

This, then, is a summary of Geertz’s theoretical views on the economic history of rural Java during the colonial period. We may surmise that Geertz arrived at these concepts in 1953–54 while conducting an anthropological survey of a village in East Java, which he calls Mojokuto (actually Pare in Kediri Regency).<sup>6</sup> The cul-de-sac, so to speak, into which Javanese villages were seen to be forced as a logical consequence of the colonial dual economy was in fact a reality superimposed on the villages in the 1950s when he directly observed them and

<sup>5</sup> Geertz seems to see typical examples of this pattern particularly in the sharecropping arrangement which is quite prevalent in Javanese villages [11, pp. 99–100].

<sup>6</sup> This is clear from the descriptive content of “Religious Belief and Economic Behavior in a Central Javanese Town” [10], which is based on his observation of “Mojokuto.”

in the early 1960s when he actually wrote the book. Despite the great depression which Indonesia underwent in 1930–40, World War II, the military occupation by Japan, the war for national independence, and other major transformations, Geertz sees no basic change in the framework of the Javanese economy except a decline in the efficiency of the estate sector. He goes on to say that “involution, too, has proceeded relentlessly onward, or perhaps one should say outward, for a process which began to be felt first in full force mainly in the sugar regions is now found over almost the whole of Java” [11, p. 126], and he indicates that “a stage of near catastrophe” [11, p. 129] has been reached.

## II. A CRITICAL LOOK AT GEERTZ'S THEORY

Geertz's view of Javanese villages has exerted a profound influence, directly or indirectly, on many students of Indonesia and their view of both the economic history of the colonial period and the present-day village economy of the countryside. However, the 1970s produced a succession of new studies critical of Geertz's view. These have questioned whether the framework presented by Geertz in *Agricultural Involution* is truly adequate for an understanding of contemporary Javanese villages. Many of these writers were involved in socioeconomic fieldwork in these villages, and one finds among them a good number of agricultural economists and rural sociologists intent upon examining village life from a broad perspective inclusive of its social and institutional aspects. They have noted the impact of economic development and modernization upon rural communities occasioned by the introduction of high-yielding seed varieties and other aspects of the BIMAS program, the Indonesian version of the Green Revolution.<sup>7</sup> Admittedly, there are differences in points of emphasis or in nuance among Geertz's critics, but there is general agreement on the broad line of argument. Among these writers we find William L. Collier, who is actively involved in conducting agricultural surveys in Java with the members of the Agro Economic Survey at Bogor, to be the most articulate representative of this trend. Let us mention here Collier's “Agricultural Evolution in Java: The Decline of Shared Poverty and Involution” [5] (a provocative title indeed!) written in 1977 and intended as a direct challenge to Geertz. We shall also cite other observers (including this writer) as we go along in order to summarize the main points of contention.

Collier in his paper points out the following problems on the basis of results obtained from agricultural surveys carried out by himself and his colleagues. First, Geertz failed to take into account virtually all the off-farm labor of peasant producers. The off-farm labor of Javanese peasants in fact accounts for a very substantial portion of their total working hours,<sup>8</sup> and if non-farm income is taken

<sup>7</sup> See, for instance: W. L. Collier [4] [5]; Collier, Gunawan Wiradi, and Soentoro [7]; Collier, Gunawan Wiradi, and Malaki [6]; Collier and Soentoro [8]; Mubyarto [21]; Sajogyo [26]; C. P. Timmer [30] [31]; and Widya Utami and John Ihalauw [35].

<sup>8</sup> The following studies based on thorough and intensive field work in villages around Yogyakarta throw clear light on this point: D. H. Penny and Masri Singarimbun [24], and B. White [33] [34].

into account, per capita income might have been seen to be rising instead of declining as Geertz claimed.<sup>9</sup> Second, Geertz takes insufficient account of the geographical diversity of the socioeconomic structures in Javanese villages and tends to over-generalize his impressions of one single village in East Java. Third, Geertz again tends to exaggerate his impressions of the chaotic period (the early 1950s) following World War II and the national independence revolution, and thus tends to be too pessimistic in his conclusions [5, pp. 3-6].

But it is to the following two points that Collier and many other observers point as crucial weaknesses in Geertz's position. First, Geertz fails to observe and analyze the actual state of affairs in landownership and thus ignores the class divisions existing between landowners and non-landowners. Second, recent developments actually negate Geertz's postulate that the involutorial process of adapting to a rising population by applying more labor to a fixed land area has become institutionalized. These two criticisms constitute nothing less than a broad frontal attack on the relevance and usefulness of Geertz's two fundamental concepts, i.e., agricultural involution and shared poverty.

Regarding the problem of landownership, Collier criticizes Geertz on the following two points. Geertz first ignores the existence of a large number of landless peasants in Javanese villages, thus removing them from the scope of his analysis.<sup>10</sup> Second, in Geertz's view the generally small size of individual land parcels is taken to mean the absence of large landlord groups, but, says Collier, this inference is not substantiated. In the Javanese context, those holding more than three quarters of a hectare may be looked upon as "large landlords," he maintains. Collier goes on to assert that if one controls directly or indirectly any substantial portion of village land, although one may actually hold title to only a small plot, he should be considered a landlord [5, pp. 7-8]. A similar criticism is also expressed by Sajogyo in his introductory remarks to the Indonesian translation of Geertz's *Agricultural Involution*, published in 1976. He bases his criticism on the 1963 agricultural census.

...Geertz's (implicit) conclusion that agricultural involution prevented in Java the birth of a class of commercial farmers worthy of note cannot be accepted. According to the 1963 agricultural census, the 7.8 million Javanese farmers (by definition, those controlling more than 0.1 hectare of land) hold on the average 0.7 ha of land per farm. If the line is drawn at 0.5 ha, the land distribution chart plotted by stratum shows that 3.8 million farmers holding more than 0.5 ha manage an average of 1.2 ha, while 4 million farmers holding less than 0.5 ha control only 0.27 ha on the average. Furthermore, the lowest stratum is made up of 4 million non-farm households with less than 0.1 ha or with no land at all.

<sup>9</sup> This writer agrees with Collier's point in criticism of Geertz that non-farming activities in villages are not observed and analyzed decisively in Geertz's work. It is anticipated that this issue will assume greater importance in Javanese village studies to come.

<sup>10</sup> No accurate estimates are available to show the average number of landless households for all Javanese villages, but a rough estimate based on the observations of this writer and an analysis of unofficial data puts the number of somewhere between 20 per cent and 40 per cent of total village households.



The highest stratum mentioned above (32 per cent) is the very class of commercial farmers who, since the early 1960s when the fertilizer revolution [*revolusi pupuk*] began, have tried to hire wage labor and use modern inputs. . . . Those depressed peasants [*petani gurem*] with less than 0.5 ha of land constitute the stratum of marginal farmers who have been left far behind because they do not possess sufficient capital and cannot be freed from the constraints imposed upon them by the larger farmers. The lowest stratum must be more numerous in 1975 than the 4 million counted in 1963. This stratum constitutes the village proletariat or semi-proletariat which is dependent above all else on agricultural employment and miscellaneous rural enterprises that require only petty capital. [26, p. xxiv]

At the same time, the results of intensive village surveys on landownership and management in Central and East Java, which are being carried out at long last, provide powerful supporting evidence for these criticisms. The surveys proceed by directly interviewing individual peasant households in a particular village. They ask questions about landownership and management, tenancy relations, and labor employment practices and are beginning to reveal the real incidences of class divisions in villages in a detailed and concrete manner. Among those already published are Hotman Siahaan's survey of Desa Kwarasan in Klaten Regency in Central Java [15], and this writer's own survey of Desa Pagelaran in Malang Regency in East Java [16] [17] [18]. The former deals with a rice producing village right in the center of the Kejawen region described by Geertz and the latter with a rice and sugar producing village on the border between Kejawen and East Hook (see Figure 2). In both cases, in terms of both de facto ownership and the size of operated farms (i.e., land owned minus land rented out plus land rented in), a very clear-cut process of class differentiation is found (see Tables I-IV). And in both instances, those landholding and well-to-do farmers exhibit a strong orientation toward commercial farming. It is also shown through hard statistical data that, contrary to Geertz, the sharecropping system of itself apparently produces class differentiation. These two surveys, needless to say, draw conclusions that are severely critical or skeptical of Geertz's assertions.

The second criticism leveled by Collier against Geertz, i.e., that concerning the institutionalization of agricultural involution, seems to constitute the core of Collier's argument, which he makes as an agricultural economist. This criticism is drawn directly from his observation of technical changes in Javanese villages brought about by the application and extension of the BIMAS program, particularly through the introduction of high-yielding varieties. Collier summarizes the Geertz's theory as follows: He sees "the ability to absorb increased numbers of cultivators per unit of cultivated land" as the most characteristic feature of Javanese wet-rice agriculture and comes to the conclusion that "increases in labor use simply reflect the capacity of wet-rice agriculture to yield more output in response to intensified cultivation practices." It must follow then that "meticulous improvements in land preparation, transplanting techniques, irrigation management, and other aspects of the growing process, all allow for marginal gains in production output and for incremental enlargements in labor input," and that

## THE DEVELOPING ECONOMIES

TABLE I  
DISTRIBUTION OF 84 SAMPLE HOUSEHOLDS BY SIZE OF LAND OWNED  
IN DESA KWARASAN, KLATEN REGENCY, CENTRAL JAVA (1975)

Size of Arable Land Owned (Ha)	Number of Households	Percentage
No land	37	44.1
0-0.25	16	19
0.26-0.50	16	19
0.51-0.75	6	7.2
0.76-1.00	6	7.2
Over 1.00	3	3.5
Total	84	100

Source: Hotman Siahaan [15, p.20].

Note: Gini index=0.892.

TABLE II  
DISTRIBUTION OF 84 SAMPLE HOUSEHOLDS BY SIZE OF LAND OPERATED  
IN DESA KWARASAN (1975)

Size of Arable Land Operated (Ha)	Number of Households	Percentage
No land	59	70.3
0-0.25	9	10.7
0.26-0.50	6	7.2
0.51-0.75	4	4.7
0.76-1.00	4	4.7
Over 1.00	2	2.4
Total	84	100

Source: Hotman Siahaan [15, p.21].

Note: Gini index=0.903.

TABLE III  
DISTRIBUTION OF 70 SAMPLE HOUSEHOLDS BY SIZE OF LAND  
OWNED IN DESA PAGELARAN, MALANG REGENCY,  
EAST JAVA (1976)

Size of Arable Land Owned (Ha)	Distribution of Households		Total Land Owned (%)
	No.	%	
No land	25	35.7	0
Less than 0.2	10	14.3	2.1
0.2-0.4	11	17.1	4.8
0.4-0.6	4	4.3	3.0
0.6-1.0	8	11.4	9.7
1.0-2.0	5	7.1	8.9
2.0-5.0	5	7.1	20.8
Over 5.0	2	2.9	50.7
Total	70	100	100

Source: Author's survey.

Note: Gini index=0.78.

TABLE IV  
DISTRIBUTION OF 70 SAMPLE HOUSEHOLDS BY SIZE OF  
LAND OPERATED IN DESA PAGELARAN (1976)

Size of Arable Land Operated (Ha)	Distribution of Households		Total Land Operated (%)
	No.	%	
No land	20	28.6	0
Less than 0.2	14	20.0	4.0
0.2-0.4	14	20.0	8.8
0.4-0.6	9	12.9	10.5
0.6-1.0	5	7.1	9.4
1.0-2.0	4	5.7	12.6
2.0-5.0	3	4.3	22.0
Over 5.0	1	1.4	32.6
Total	70	100	100

Source: Author's survey.

Note: Gini index=0.72.

“improvements in seed variety would also be accompanied by advances in production and labor use.” This is because “involution concerns a process whereby improvements in the quality and management of land, water, seeds, etc., allow for higher levels of production and labor absorption” [5, p. 10]. According to this involutorial theory, the adoption of high-yielding varieties of seed in Java today should bring about “a considerable increase in labor use per unit of cultivated land.” But the facts do not bear out this anticipated conclusion. The introduction of high-yielding varieties has increased the production per unit of cultivated land, but there have been *virtually no changes in labor input*. To prove this point, Collier draws empirical data from the results of agricultural surveys conducted by the Agro Economic Survey and maintains that this alone invalidates Geertz’s hypothesis as it applies to Javanese villages of today [5, pp. 11-12].

What is even more important in Collier’s mind, however, is the dramatic change that has occurred in harvesting practices. He contends that there are three aspects to this change; sometimes all three are observable while at other times only one or two are evident. First, the traditional collective practice of allowing anyone to participate in the harvest and enjoy its fruits (divided in kind according to a fixed percentage of his/her labor contribution) is being quickly replaced by a new arrangement called *tebasan* whereby outside merchants or village landlords and wealthy farmers with their own band of wage laborers assume responsibility for harvesting and marketing the crop for a fixed price. Second, the inefficient traditional harvest tool *ani-ani* is being replaced by ordinary sickles. Third, the freedom formerly enjoyed of joining in gleaning the harvested fields (*ngasak*) is gradually being lost.<sup>11</sup> These manifestations of change are closely related to the rationalization and introduction of labor-saving devices in harvesting. At the same time, they serve to strengthen the private, exclusive appropriation

<sup>11</sup> For further reference regarding technical and institutional changes in rice harvesting practices, see: Budhisantoso [2]; Collier et al. [7]; Sjafrin Sairin [27]; and Ann L. Stoler [28].

of the output. Based on these observations, Collier concludes:

...the above-mentioned changes in cultivation practices and the contraction in labor-use associated with these transformations provides ample evidence that something other than the process of involution is acting as a prime mover in the allocation and distribution of production functions at the farm level. The concept of involution implies the presence of certain social mechanisms and communal norms whereby the needs of the many maintain ascendancy over the wants of the few. Nevertheless, the above evidence suggests that these mechanisms are under some degree of stress and that the presumed equilibrium between labor supply and labor absorption is giving way to a condition where the values of efficiency and profit assume a much more pronounced role in the economy of agricultural production. [5, p. 19]<sup>12</sup>

Collier lists other examples of rationalizing and labor-saving improvements in rice cultivation. Not only on these technical fronts but also in the pattern of distribution of employment opportunities in the village labor market, a variety of contracts are observable, all of which are either group-oriented or exclusive in nature, he contends. "Mojokuto" and its neighborhood in the 1950s might have been characterized by a fair distribution of employment opportunities and by a great flexibility in labor absorption, as Geertz maintained, but according to Collier these features no longer apply to the reality of the 1970s [5, pp. 28-32]. His conclusion then is that a process entirely different from involution is going on in present-day Javanese villages, which he refers to as "evolutionary change."

### III. IN SEARCH OF NEW PERSPECTIVES

As can be seen from the above discussion, recent surveys carried out mainly by agricultural economists and rural sociologists seem to show more persuasively and with more and better empirical evidence to back them that today's Javanese villages display features which cannot be adequately explained by Geertz's concepts of agricultural involution and shared poverty. The first question that arises here is when did the process of evolutionary change (in Collier's words) begin in Javanese agriculture and what initiated this process.

It seems difficult to deny that what quickly and widely exposed the hitherto hidden elements of the new process was the introduction of new rice-growing techniques as the Green Revolution got under way in the late 1960s. We realize that many of Geertz's critics became skeptical of his theories while examining the results of surveys carried out to determine the impact of the BIMAS program and the propagation of high-yielding varieties on rural society. We must go one step further, however, and seek the latent subjective factors which allowed for the absorption of these new techniques (or more accurately, for the absorption

<sup>12</sup> For a more concrete description, see Collier and Soentoro [8]. Although my impression, based on direct observations made in villages in East and Central Java, is that Collier is too straightforward in emphasizing the impact of technical change on social institutions, I am in basic agreement with his perception of the general trend that now holds as well as with the main criticisms he directs at Geertz.

of the means of production) and promoted a more rational agriculture and its outward expansion.

What is of interest in this connection is the work of rural sociologist Herman Soewardi [14] who surveyed eight sample villages in West Java taking Geertz's model as his frame of reference. Through the elaborate use of factor analysis, he showed a clear division of village residents into an upper stratum (*lapisan atas*) and a lower stratum (*lapisan bawah*), discovering corresponding patterns of socio-economic behavior and an enthusiastic response on the part of the upper stratum to agricultural modernization and the introduction of new agricultural techniques. As described above, these points are shown by many village surveys to be equally applicable to villages in Central and East Java. We may conclude, then, that it was the existence of resident landlords and rich farmers with a pronounced entrepreneurial bent that served as the subjective element initiating the new process of evolutionary change.

If this is so, the question then arises did not this latent factor, which has transformed the involutorial process into one of outward development, already come into being before the diffusion of new agricultural techniques or even before the 1950s when Geertz did his field work and hit upon the concept of agricultural involution. If this is the case, the biggest weakness of Geertz's theory, which was designed to serve above all as a theory of economic history, would be not just its inapplicability to contemporary Javanese villages but its complete failure to provide a positive explanation of the historical processes which nurtured these latent, subjective factors. Collier's remarks after reexamining Geertz's theory from an empirical point of view are of particular interest here:

It is likely to that these changes were well under way in some areas long before Geertz advanced his theory of involution, and subject to different historical conditions within a particular region, it is likely that the presence or absence of attributes associated with involution, or its polar opposite, i.e., a more commercial agriculture, have varied in their influence upon the character of village and rural society. Thus, it may be that the concept of involution has never really adequately represented the rich and variegated processes of historical change in many areas of Java, and it is for certain that future research must now move beyond involution in understanding a rice economy which seems to be exhibiting a marked tendency towards exclusion rather than absorption in responding to a burgeoning labor force. [5, p. 33]

Benjamin White also justifiably points out that it would probably be wrong to attribute these changes to factors such as population pressure and the introduction of new techniques alone. He points rather to the political and economic changes on the national level that occurred in the late 1960s (at the start of the Green Revolution) and the commercialization of the economic attitudes and behavior of rich farmers that ensued [33, p. 283].

In any event, these assertions are all based on the assumption that resident landlords and prosperous farmers (or the commercial farming class, *petani komersiel*, in Sajogyo's words) existed as a distinct social entity before the Green Revolution began and before new agricultural techniques spread and that

TABLE V  
SUGAR REFINING MILLS IN JAVA

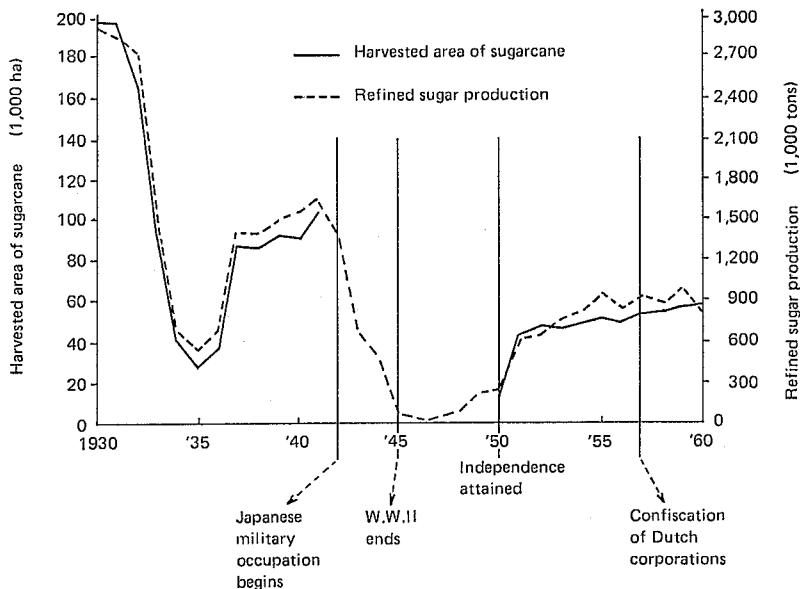
Region	Number of Mills	
	1930	1968
West Java	11	5
Central Java*	67	17
East Java	101	33
Total	179	55

Sources: For 1930, *Indisch verslag 1931* [Indian report 1931] (Batavia: Centraal Kantoor voor de Statistiek, 1931), Part 2, p. 267. For 1968, A. Wasit Notojoewono [32, Vol. 1, pp. 210-21].

\* Includes Yogyakarta and Surakarta.

the group of landlords and farmers, with its innovative frame of mind, was able to capitalize on the new wave in order to enrich itself. When and through what process was this particular group formed then? This is indeed a question for economic historians, but one looks in vain to Geertz's theory for an answer. This writer would suggest that an important starting point may very well be the conspicuous decline of the position of sugar estates (once the economic basis of colonial rule) and the drastic reduction in the land area under sugarcane cultivation, the decrease in sugar production, and the decline in the number of sugar mills that occurred in the 1930s and during the wartime Japanese occupation of the country (see Table V and Figure 3). This at least establishes that sugar production centered on sugar mills, which Geertz considered to be the origin of involution in post-World War II Indonesia, lost its capacity to determine the structure of Javanese agriculture. (This also means that, contrary to Geertz, the economic framework supporting Javanese villages underwent a radical change at this point.) As if these transformations were not enough, Dutch corporations were confiscated and nationalized at the end of 1957 in the midst of rising political tensions over the West Irian issue, and this action signified the total exclusion of Dutch capital from the Javanese sugar industry. In 1960, the Basic Agrarian Law (*Undang-Undang Pokok Agraria: UUPA*) was promulgated as a part of the reform of the colonialistic legal system, doing away with the old land system built around the Agrarian Law (*Agrarische wet*) and the Agrarian Decree (*Agrarische besluit*), both of which dated from 1870. This meant the dissolution of the legal consensus which enabled the estates to control agricultural land as well as the peasantry. There is good reason to think that this led to the virtual dismantling of the semi-communal restraints exercised by administrative villages over landownership in many parts of the country. These phenomena should not be brushed aside as "political, economic, intellectual confusion" [11, p. 129] as Geertz termed them. They should rather be considered from the viewpoint of economic history as constituting a series of revolutionary processes introducing certain significant and profound structural changes in rural life. One might say that it was precisely when Geertz was most occupied with the elaboration of his

Fig. 3. Sugar Production in Java, 1930-60



Source: A. Wasit Notojoewono [32, Vol. 1, pp. 10-14].

theoretical concepts that the “centauric social unit” (the institutional assumption supporting his theory) was in the process of collapsing. It is not hard to imagine that landlords and wealthy cultivators were busy building up their strength at this time. Their new found power would later impel them to take initiative in reversing the involutinal process at the start of the Green Revolution in the 1970s.

This leads us to another question: was the institutional framework of the dual economy formed during the period of colonial rule really as solid as Boeke and Geertz would have it? Was it not rather vulnerable, so much so in fact that changing circumstances (the disappearance of export markets, political independence, etc.) could undermine it with surprising ease? Was it not held together merely by a delicate balance or unresolved rivalry between internal forces such as the estates, local Javanese bureaucrats (*priyayi*), peasants, and most probably Chinese traders? Furthermore, if this is indeed the case, should this framework be seen as a closed world locked in a rigid pattern of its own, or should it, contrary to Geertz, be understood as a dynamic process containing its own internal contradiction? The formation of both the landlord/rich farmer class and the landless stratum (both of which originated in the colonial period, and probably date from the nineteenth century) should also be examined from this dynamic historical perspective.<sup>13</sup>

<sup>13</sup> This point is also made in M. L. Lyon [20], and G. P. Temple [29].

Such a dynamic view of history calls for a reexamination of the conceptual framework Geertz applies to the entire economic history of the colonial period. A number of questions arise here. Geertz seems to say that the *sawah* ecosystem itself contained the seeds of involution and uses this as the starting point of his argument, but is this valid? Geertz also claims that the ecological requirements for sugar and wet-rice cultivation were identical; is this correct? With respect to the last point Sajogyo points out that:

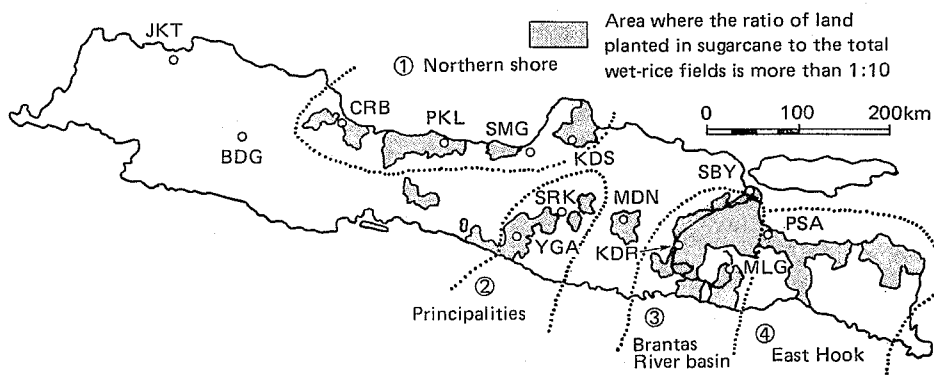
The ease with which sugar mills could secure the labor force needed for sugar estates prompts us to suspect that this "cheap labor" was the most important consideration prompting the sugar mill capitalists to display a keen interest in the "cultural core" [of *sawah* ecosystem]. We also suspect that the sugar growing techniques suitable for irrigation and the wet-rice ecosystem were deliberately chosen from among a variety of techniques developed by capitalists through the use of modern agronomy! In most tropical regions, sugarcane is grown without the elaborate irrigation one finds in Java and sometimes relies only on local rainfall. In this respect, Geertz was misinformed when he claimed that the ecological conditions for sugarcane cultivation were identical to those for wet-rice cultivation. [26, p. xxv]<sup>14</sup>

Furthermore, Geertz assumes that the Kejawen region was the central sugar-producing region in Java, as was pointed out in Section I, but again we must ask whether this is justified. The answer suggests itself if one looks at the geographical distribution of sugarcane cultivation shown in the *Landbouwatlas van Java en Madoera* (Figure 4), which Geertz himself relied on, as well as at the figures for sugar output by region (Table VI). It is clear that there were four principal sugar belts in Java: (1) the northern shore of Central Java from Cirebon to Kudus, (2) the area of the ex-principalities (*vorstenlanden*) around Yogyakarta and Surakarta, (3) the Brantas River basin including such areas as Malang, Blitar, Kediri, and Surabaya, and (4) East Hook (Ujung Timur) east of Pasuruan. Nevertheless, of these four regions, only the second can be said with certainty to belong to "Kejawen" as Geertz referred to it (see Figure 1). Furthermore, in the sense indicated in footnote 2, neither the northern shore (see Pasisir in Figure 1) nor East Hook belongs to Kejawen as it is defined by Geertz. One must look with an even more critical eye at the third region, the Brantas River basin, which has Java's highest sugar output and may be called the center of the central sugar-producing region. A casual comparison of Geertz's division of Java into four parts (cf. Figure 1) with Figure 4 seems to indicate that most of the third region does indeed belong to Kejawen, except for the area near the mouth of the Brantas River which belongs to Pasisir. However, Geertz's division is quite questionable; if a more accurate demarcation line of the eastern boundary of Kejawen is drawn (the dotted line B in Figure 2), at least the eastern half of the third region falls outside of Kejawen. Consequently, Geertz's implicit equating of the central wet-rice region (Kejawen) with the central sugar-

<sup>14</sup> In the Southern Malang area, East Java, where small-holder sugarcane production (*tebu rakyat*) is most prevalent, sugar tends to be grown as a dry-field (*tegal*) crop or in wet-rice fields with only rainfall for irrigation (*sawah tadah hujan*).



Fig. 4. Geographical Distribution of the Principal Sugar Regions (1920)



Principal cities:

- |               |                  |                  |
|---------------|------------------|------------------|
| BDG = Bandung | MDN = Madiun     | SMG = Semarang   |
| CRB = Cirebon | MLG = Malang     | SRK = Surakarta  |
| JKT = Jakarta | PKL = Pekalongan | YGA = Yogyakarta |
| KDR = Kediri  | PSA = Pasuruan   |                  |
| KDS = Kudus   | SBY = Surabaya   |                  |

Source: *Landbouwatlas van Java en Madoera* [19, Part 1, No. 21].

TABLE VI  
SUGAR PRODUCED BY ESTATES CLASSIFIED BY REGION (1922)

Region	Residency	Sugar Produced	
		Amount (1,000 Kg)	%
Northern shore	Cirebon	102,067	5.6 10.7 6.5
	Pekalongan	193,514	
	Semarang	117,027	
		412,608	22.8
Principalities	Yogyakarta	189,993	10.5 9.1
	Surakarta	164,599	
		354,592	19.6
Brantas River basin	Surabaya	295,743	16.3 14.3 2.5
	Kediri	258,949	
	Pasuruan (a)	45,485	
		600,177	33.2
East Hook	Pasuruan (b)	195,612	10.8 3.8
	Besuki	68,267	
		263,879	14.6
Others	Banyumas	58,869	3.3 2.2 4.4
	Kedu	39,425	
	Madiun	79,840	
		178,134	9.8
Java total		1,809,391	100

Source: *Landbouwatlas van Java en Madoera* [19, Part 2, pp. 96\*-101\*].

Note: Pasuruan (a)=Malang Division. Pasuruan (b)=Pasuruan, Bangil, Probolinggo, Kraksaan, Lumajang Divisions.

producing region is highly questionable, although it is schematically satisfying. A total reexamination of the sugar industry, its birth and subsequent development constitutes an important area of unfinished business for researchers.

Of greater general importance, however, is the following point. According to Geertz, Dutch colonial rule, thoroughly mercantilist in nature, governed Indonesia "without changing fundamentally the structure of the indigenous economy" [11, pp. 47-48]. But is this perception of colonial rule valid? Should we not take note of certain fundamental changes that occurred in the social and economic organization of Javanese society at the rural as well as urban level, including changes in the commercial sphere and in the power structure, as colonial rule entrenched itself? For instance, a case study using primary data has shown that the imposition of the Culture System brought about a violent change in socio-economic structure at the rural level [22] [23]. The colonial system should be understood as an instrument of primitive capital accumulation created by Dutch capitalism, and a study of its economic history should not neglect the fact that the Culture System could only be implemented after brutally crushing with military force the uprisings of the Javanese nobility, the Islamic leadership, and the peasantry (e.g., the War of Diponegoro, 1825-30). Furthermore, the period of the Corporate Plantation System which dates from 1870 must certainly have produced extremely important changes in the rural social structure through such measures as the Native Municipality Ordinance (*Inlandsche gemeente ordonnatie*: IGO) of 1906 and other administrative reforms including the Ethical Policy (*ethische politiek*) with its construction of irrigation networks. It needs to be emphasized that a rigorous empirical and theoretical analysis of the process by which the rule of the sugar estates was gradually imposed on the villages and peasants in close cooperation with colonial policy and of the institutional changes this brought about has barely begun.

At any rate, of utmost importance is the fact that Dutch colonial rule was not simply superimposed on the existing ecosystem but in fact created a qualitatively new and different system; it was as a result of this process that the socio-economic organization and power structure of Javanese villages underwent radical change. Agricultural involution and shared poverty, then, should be given their proper places as aspects of this overall transformation. But from the point of view of political economy, this historical process must be seen to describe the disintegration of Javanese village society under the impact of the Dutch capital concentrated in the sugar industry and the subsequent reorganization of rural society by this latter. It must be noted, moreover, that it was through this very process of disintegration/reintegration that various latent but substantive contradictions were created which would later threaten the stability (and ultimately the very existence) of the system of dominance by capital. The real question, then, should be what was the reaction of the different elements of Javanese rural and urban society to this process. It is in this long-term historical perspective that the emergence of resident landlords and wealthy farmers in the 1970s as enthusiastic borrowers and promoters of new agricultural techniques must be analyzed. The task of economic historians, indeed of historians in general con-

cerned with Indonesia and particularly with Java, must be to trace this entire historical process once again in a detailed and systematic manner (which will probably involve going back to the nineteenth century), keeping their observant eyes firmly fixed on the different levels of rural life in Java.

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