The focus of the paper is the sugar industry, of late colonial Java and the evolving history of its access to land and labor. Its argument relates primarily to developments in one major sugar-producing region of North-Central Java, the Residences of Pekalongan and Tegal, which after 1960 were administratively combined into one. By the 1970s, this region produced around ten percent of the sugar produced in Java's network of around one hundred and eighty colonial sugar factories. Though its factories themselves were similar to those to be found elsewhere in the colony, as we shall see, a number of aspects relating to the production factors of land and labor differentiated Pekalongan-Tegal from its

The sections of this paper dealing with Brazilianos are based on research carried out by Arthur van Schak in The Hague, and on the final report of the Braakhuis Commis sion (see below) of 1921, a copy of which was located by Mr. van Schak in the Colether Mopert Jaarboek. The second half of this paper represents a preliminary report on research conducted into the issues surrounding Braakhuis in Pekalongan-Tegal currently being carried out by the joint authors of this paper and funded in part by a Small Grant from the Australian Research Council.
counterparts elsewhere in Java. In turn, this was something which served to throw the spotlight on the relations between the managers and owners of the factories and the various strata of the colonial administration with whom they had performed to deal.

In broad summary, the paper’s argument concerns the access to land and labor which, in tandem with technology and management, were the crucial factors underpinning Java sugar’s trajectory in the international trade in sugar for the better part of a hundred years, from the 1860s through the 1930s. For much of that time, Java’s colonial sugar factories, supplyng first European and North American and subsequently predominantly Asian markets, exported cane sugar in quantities exceeded only by Cuba, largest of the New World producers. Java’s factories were the first in Asia to industrialize on any significant and sustained scale, and the industry’s Dutch and Dutch-colonial managers and technicians, evolved a level of expertise and an accompanying business culture which meant that in terms of managerial competence and the application of science to the manufacture of sugar and the horticulture of cane, the Java industry had emerged as a world leader by the early twentieth century.

Intervened with these developments was a relatively plentiful supply of disciplined, low-paid labor and, perhaps most controversially, the industry’s capacity to access some of Java’s most fertile and best-irrigated farmland for the cultivation of its raw material. Taken together, they formed the basis for the degree of hegemony over the agrarian resources of rural Java which significantly underpinned the Java industry’s position at the apex of the international sugar economy. The argument of this paper, however, is that cane’s hegemony on the island was by no means a foregone conclusion; that it was achieved through a complex mixture of duress and accommodation involving both the power of the colonial state and the several strata of Java’s rural society; and that it remained essentially precarious, prone to disruption from a variety of forces within the colonial bureaucracy and from secular trends in the rural economy over which it had only marginal control. 7

Sugar, Land and Labor in Colonial Java.

In many of the lowland areas of Central and East Java, sugar cane was an ubiquitous crop from the second half of the nineteenth century through to the 1930s. Although the cane grown for colonial sugar factories was nationally limited to a planting for any one harvest which never exceeded around eight percent of Java’s arable land, such a figure was in some respects deceptive. Most obviously, 7

7 This latter aspect of the argument, which will not be developed further in the present context, owes its inspiration to the work of Pierre van der Eng, notably his Agricultural Growth in Indonesia, Boston: Macmillan, 1996.
sugar cane and the industry which it supplied with raw material was concentrated in a number of specific areas; most notably, the North Coast from Cirebon to Semarang, the lower Brantas valley and delta, the coastal region around Pasuruan and last but not least - a number of districts in the Vorstenlanden, especially those on the lower slopes of Merapi between Yogya and Solo. Enthuse (and other) areas, the land planted for any one harvest amounted to a considerably higher percentage of the total. In the North Coast sub-region of Pekalongan-Tegal, for example, it amounted to around thirteen percent and in some districts to as much as thirty percent in the dry monsoon.

Equally importantly, however, cane harvests overlapped and had unpredictable, often deleterious effects on the agriculture of surrounding, none-cane fields. Generally speaking, cane occupied fields for upwards of fifteen or sixteen months. Preparation of the fields normally began in April, planting took place from May-June through to August, and produced a crop which was harvested in the following year, beginning in May and ending (usually) in September. However, because of the rotational system of annual replanting which was practiced in Java (rationing was the exception), planting for the following year's harvest began well in advance of the completion of the current year's harvest, implying as much as a six month overlap in some cases. The degree of priority - historically varying - accorded to cane's irrigation requirements, moreover, had the potential to circumvent significantly the agriculture practiced throughout the sugar districts, rather than just on the land designated for cane. Particularly during the dry monsoon, the priority given to cane had a well-deserved reputation for curtailting the potential for peasant cultivation of a variety of marketable second-crops.

For these reasons, sugar cane established and sustained a formidable presence in some of the most densely populated and fertile parts of Java well beyond anything which recoursre to statistics alone might imply. That presence, nonetheless, was not a forgone conclusion. Nor would it be correct to assume that cane achieved an early or uncontested hegemony that changed little over time. Indeed, as the issues analyzed in this paper suggest, quite the contrary was the case.

Sugar cane's struggle for hegemony in rural Java began in the mid-nineteenth century. Prior to that, Java's colonial sugar industry had been characterized by either the separation of cane from the production of food crops (in the Batavia Ommelanden) or by its clear subordination to the requirements of other commercial crops, notably rice (in the Pessiri). An essential element in the industry's mid-nineteenth century re-construction was that cane began to achieve a hegemony in the lowlands of Central and Eastern Java, to which it was transferred under the aegis of the Cultivation System. This was a development
central to Java sugar's trajectory in the world sugar economy of the late colonial era. It remained, nonetheless, a problematic development characterized by complex and changing dynamics over its century-long history. The first part of this paper outlines the several facets of the growth of that hegemony and the problems confronting it. The second part of the paper will provide a preliminary analysis of a particular episode in the evolving history of cane's access to land and labor in relation to the so-called Brantas or Fallow-lieu question in the Pekalongan-Tegal sugar region of north-central Java during the first three decades of the twentieth century.

If there can be said to be a single orthodoxy about the century-long trajectory of Java sugar from the mid-nineteenth century through to the industry's decimation (but not destruction) during the Inter-War Depression of the 1930s, it relates to its apparent access to virtually limitless amounts of 'cheap' labor and to a workforce whose malleability was virtually guaranteed by a coercive colonial regime and by the sheer density of the rural population. This thesis, for all its undoubted strengths, is nonetheless more problematic than might appear at first blush, in so far as it postulates a colonial state characterized in terms of a close nexus between colonial administrators and 'plantation' capital and a substantially homogenous rural population on whom such a state acted more or less at will, then is both incomplete and unsatisfactory.

Specifically, it was the historically skewed access to resources which characterized what might only very broadly be described as the peasantry of lowland Java, in conjunction with the crude ratio of tillers to soil, which constituted the basis for Java sugar's sustained access to labor and land. The subordination of land and labor to the requirements of the large-scale production of cane, that is to say, was predicated on a growing differentiation among Java's rural population. The coercive positioning of the sugar industry within the larger framework of the agricultural cycles of lowland Java's agriculture was contingent not only on the determination of state power holders to support or restrain it, but also on social and economic developments in rural Java which the state might seek to shape, but over which, in the long term, it had only a limited degree of control. In total, these crucial factors formed the crucial parameters within which Java's colonial sugar industry sought to have its way in the countryside.

Discussion of this can best begin with the industry's supply of labor. In this respect, the still widespread assumption that Java sugar production was rooted in the exploitation of peasant production is at best ambiguous. This is particularly the case, in so far as there is implicit in that notion the idea that it was the nexus of cultivating households, rather than rural labor directly which the industry exploited. In fact, this held good — and then only to a limited extent — during...
initial phases of Java sugar's reconstruction during the mid-nineteenth century. The degree of peasantisation which agrarian Java had undergone by that date enabled the industry to draw, to a degree, on the output of settled cultivators who were habituated to providing produce and labor service to rural estate's and, through them, to the state. As a model for the industry's evolution over time, however, 'sugar-with-peasants' is largely obsolete. Subsequent developments in the late nineteenth and early twentieth centuries saw rented land cultivated with cane by a workforce lured quite separately from arrangements for such rental - and substantially comprised of individuals who were not themselves landholders.

Even in the mid-nineteenth century, moreover, and progressively so thereafter, Java sugar gained the very heavy labor inputs needed at crucial stages of an efficient work process through access, not simply to peasant-like landless cultivators, but also to a substantial number of functionally landless rural workers. Such people - in the initial, mid-nineteenth century stages of reconstruction - were potentially available to the industry through the intermediaries of the state and its local officials. Deliberately in 'Government Coodies,' labor of this kind was raised on the basis of the putative corvee obligations of the landholding elements among the village populations of the areas around the sugar factories. In fact, there are strong indications that much of the actual turn-out comprised people from the pool of landless households attached in various ways to the landholding group. Evidence is, moreover, that where that pool was insufficient - as in parts of Pekalongan-Tegal - the state's ability to foster the industry was correspondingly limited. From the 1860s onward, Government Coodies were progressively phased out of the industry. Their replacements were wage workers often brought into the industry by gangers or foremen mandor and, though far from invariably, informally bound to their employers by a system of advances on their earnings. Java sugar continued to rely on such flows of labor from an increasingly land hungry countryside for the remainder of its colonial-era existence, with the

3It very much looks as if in the Penalang kebupaten (and further to the east in the adjoining districts of Pekalongan) the ratio of landed to landless households was a good deal lower i.e. more landless/less landless) than it was in the districts of Tegal, kebupaten immediately to the south of Tegal city, in which there was a cluster of mid-century sugar. The Unhagrove Monographs include data which, however problematic in might be in a number of respects, appears to establish relative differences between these two areas of cane cultivation which point to a much larger pool of landless households e.g. for the Adiyeran sugar factory, in the Tegal cluster, than was the case at Cimul (Penangun) or Seggi and Wonogrango (Pekalongan). (The Verslag van de Rijstkolonie Tegal 1835, waarin het percentage landbouvrige ingenieurs en van alle ingenieurs in de diensten Pamanal, Comual for Comual kindel (resp. 83, 72 m 72) veel hoger is dan in de districts Penangun het rapporteert Tegal (30 a 60). Before assuming that this latter source unambiguous Unhagrove, however, it should be realized that it was precisely from Residency data of this kind that the Unhagrove Monographs would have been drawn up.
significant provision that securing the regularity of the flow brought the industry into competition with other (usually) employers of rural labor. Colonial administrators played a part in disciplining such labor - in stopping it, in effect, from becoming too aggressively proletarian in its demands on capital. The industry, its future closely bound up with ever more intensive cultivation, never felt itself entirely secure, however, in its access to labor. This was evidenced, inter alia, by its repeated experiments with mechanized ground preparation, designed to obviate the need to recourse to manual labor which not only took considerable and sustained effort to secure, but also needed considerable supervision to perform effectively. Ready and sufficient access to 'cheap' labor was far from being a foregone conclusion.

Labor was one aspect of cane's hegemony: the other was land - and the state which so often gave it value. At the basis of the reconstruction of the industry under the sign of the Cultivation System was the assumption that Java sugar could be revived and expanded through the reorganization of existing farmland for the cultivation of cane on a rotational basis with rice and other of what were deemed to be 'p assist' crops. As with the commandeering of labor, the broad guidelines determining how the Cultivation System was made operative similarly assumed that the authority of the state - sweeter, as it were, by some kind of payment to cultivators - was sufficient for the purpose.

In Pekalongan-Tegal (the situation seems to have varied from one part of Java to another) these several assumptions ran into difficulties or accrued both of the pre-existing, highly commercialized character of peasant cropping and - notably - in the districts which comprised the (old) Pekalongan Residency itself. A crisis of authority in which successive and singularly short-term Dutch Residents found themselves pitted against the local Javanese power holders - a situation compounded by the exceptional heavy demands made by State Cultivation's other than that of cane. In the (old) Tegal Residency, more so, the early 1860s were marked by a significant amount of rural unrest some of whose origins (at least) lie in opposition to the requirements of cane cultivation.

By the late 1860s, however, the position of sugar had settled down. Throughout the Pekalongan-Tegal and cane's emergent hegemony was assured by (sort of) state power which was itself contingent on accommodations with key elements among an increasingly stratified agrarian population. The groundwork was being laid for developments which, during the 1880s, saw the industry move from a situation in which its raw material was supplied from state-run plantations to one in which the factories themselves accessed the land required for the cultivation of cane through rental agreements with landholding cultivators. This shook the industry, with or without the connivance of the state's local officials.
in a good deal of manipulation of the rural ‘market’ for land - and of the irrigation water which gave land a significant proportion of its value.

In Pekalongan-Tegal, as elsewhere in central and eastern Java, access to land through state requisition gave way, that is to say, to a complex of formal and informal arrangements. On a formal level, the industry rented fields from the peasant landholdcrs of the districts surrounding the factories, and was subject to certain restrictions imposed by the Indies Government. Among these was a (highly notional) ceiling on the amount of land which was rented and brought under cane in any one village in any one year and, after 1898, an (operative) prohibition on the further expansion of the hectarage per factory which might rent (a prohibition which could only be over-ridden with the express permission of the colonial Government). Informally, access to land was determined, at the local level, by a wide variety of intertwining factors, an important background to which was that the factories generally had agreements among themselves to avoid competing for land in each other’s recognized zones of operation. These informal factors included the whip-hand which the factories possessed - until it was challenged by provincial administration; at the very end of the nineteenth century - over the distribution of irrigation water in their localities; an understanding with local-level state officials that they would use their power and prestige to underpin the factory’s rental agreements; accommodation (by no means assured) between the industry and the substantial landholding and resource-controlling elements among the peasantry; and last but by no means least - a degree of indebtedness among the bulk of the countryside’s petty peasant landlords which caused them to be apt to seize upon rental as a debt-servicing device which overlooked any concerns with longer-term opportunity costs.

Given this set of parameters, the relation between the factories and the colonial administration were many-sided and highly convoluted. So too was the social and economic setting in which cane came to be embedded in the countryside.

As we shall see in part two of the paper, access to land became an increasingly major pre-occupation with the industry early in the twentieth century, as it sought to combat potentially disastrous trends towards protectionism in the world market by cutting its production costs to the bone. One way to achieve this was the utilization of its (continually upgraded) manufacturing capacity by extending its plantation area. In Pekalongan-Tegal, this lead to an expansion of the hectarage under cane to an extent unparalleled elsewhere in Java. With the permission of the Indies Government - and often in the teeth of opposition from provincial colonial administrators - Pekalongan-Tegal’s fifteen existing factories expanded their cane planting exponentially between 1900 and 1917, three new,
high capacity factories were established, and one of the old ones totally rebuilt in state-of-the-art style.

One crucial dimension of this evolving situation had to do with the huge expansion of technical irrigation in the Residency early in the twentieth century which brought thousands of hectares of land under perennial irrigation in the Pekalongan lowlands, primarily in the kebun arean of Pemalong and Sumber. At approximately the same time, the industry's reputation as the world's most advanced in terms of its horticulture of cane was reflected in increasingly intensive techniques in the agricultural sector, techniques which - together with new varieties of cane - significantly enhanced plantation productivity but which also demanded greater labor inputs. Underlying the industry's great deal of raw material moreover, was its adoption of global innovations in the manufacturing sector, particularly the introduction of multiple milling. This latter development, in particular, brought the industry in considerable expense and added significantly to existing commercial pressures to reduce the unit cost of production by increasing its volume. These were pressures which were felt, of course, throughout the Java industry. As will be argued, however, they had particular repercussions in Pekalongan-Tegal because of the locally specific land and labor situation which had grown up there over the preceding decades.

Braakhuys in Pekalongan-Tegal.

Taken together, these developments in manufacturing and in the horticulture of cane precipitated something of a crisis in the industry's access to both land and labor. Indeed, in some respects, the two were intricately interlinked. The expansion of the industry was predicated not simply on an increase in the hecatnage under cane, but on the ever more intensive exploitation of the hectarage. This called for labor resources on an unprecedented scale. Yet the demand for labor came at precisely the time of the year - April through May and beyond - when the labor demands of native agriculture were also at their greatest, both in the harvesting of wet monsoon rice and in the planting of a wide variety of crops, including (increasingly) more rice, which would mature during the following dry monsoon. This clash of cultivation had a long history in Pekalongan-Tegal but the early twentieth century increase in cane planting created a pronounced escalation in the situation.

The industry responded, in parts of the Residency at least, with the widespread adoption of a new arrangement which had been pioneered in the 1890s by the Administrateur of the Central factories in Pemalong kebupatihan. This...

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arrangement came to be dubbed Brookhuis or Fallow-hire, since it involved the factors concerned in the rental of land during rather than at the end of the wet monsoon (as had generally been customary), thereby preventing the land being planted with main-crop rice. Instead, it lay fallow and could be prepared for cane planting well ahead of the high demand period for labor in April–May, and by workers whose employment opportunities locally were in any event diminished by the fact that Brookhuis considerably diminished the hectarage of rice ready for harvest at the end of the wet monsoon. Brookhuis had a complex rationale, but one essential element was its effect of freeing labor for work on the sugar fields. Around 1914, some forty percent of the total cane hectarage in Pekalongan-Tegal was planted on land rented in Brookhuis, a percentage totally without parallel elsewhere in Java.

The Colonial Administration and Sugar Factories.

The Brookhuis question (as already indicated) served to put the spotlight on the relations between the colonial administration, Java’s sugar factories and sugar capital in general. As reconstructed in the middle decades of the nineteenth century under theegis of the Cultuurstelsel, the nexus between the industry and the Dutch colonial administration had initially been a very close one. The individuals and firms—eventually almost all (colonial) European—who had contracted with the Indies Government to process cane into sugar in the 1830s and 1840s had been supplied with working capital, together and low-interest loans with which to establish or re-model their factories. Nationally, at least, such contractors worked hand-in-glove with the provincial and local officials of the colonial administration, from the Resident downward, who were in charge of the planting of the cane which the contractor subsequently harvested and turned into sugar. Though this did not preclude some spectacular eruptions of the tensions inherent in this division of management, it did mean that the industry re-emerged in Java in its late colonial form in very close association with an administration which not only (largely) financed it but also directed labor into the industry and provided it with its raw material.

On a formal level at least, this nexus between administration and industry started to change fairly radically after 1870 and the establishment of a new framework for the operation of Western Enterprise in Java, in which the state played a much reduced direct role. Already in the 1850s, the Indies Government had stopped providing the Contractors with working capital, and had begun to leave the factories to own devices to access labor for the Campaign. This formal dissociation accelerated during the 1880s, as the administration phased out the compulsory cultivation of cane on the industry’s behalf, a development which was substantially complete by 1890. The situation remained a highly ambivalent one,
nonetheless. On the one hand, the fin-de-siècle industry inherited a tradition stretching back over more than fifty years in which it was closely linked to state power in Java. On the other hand, it began to encounter a generation of colonial administrators who saw industry and state in quite distinctive terms, and who conceived their own agendas as separate from—and quite possibly antithetical to—those of the sugar factories and their managers and owners. This evolving situation was highlighted in Pekalongan-Tegal, where particular pressures combined to bring potential areas of conflict between administrators and the industry into sharp focus.

At least as seen in retrospect, the 1890s and much of the subsequent decade were a period in which the industry in Pekalongan-Tegal had largely been untrammeled by the provincial administration in its procedures for accessing land and labor in the wake of the dismantlement of the Cultuurstelsel. This was the period in which Blokhuis make its first appearance in the Residency—at the Cornal factory in Pemalang district (hence so-called ‘Cornal Contracts’ of the 1890s)—in conjunction with a management of the all-important distribution of irrigation water during the dry monsoon which concealed the whip-hand to the factories.

Towards the very end of the century, however, the situation began to change, as a succession of Residents both began to assert their control and to develop an agenda which caused them to view the sugar factories in a critical light. This appears first to have been evident when H.E. Steinmetz took over, first as Resident of Pekalongan in 1898 and subsequently as chief executive of the new combined Pekalongan-Tegal in 1900. Steinmetz gained a reputation in industry circles as “an enemy of capital”, and together with his successors sought both to...
carts the practice and spread of Brookhuis. They also opposed extended and new concessions to the sugar companies, for which they saw Brookhuis as the uncritical agency. Hence the granting of concessions in 1915 to three different sugar companies to establish new factories in Pekalongan-Tegal took place in the face of opposition from the Resident, as did the very substantial and roughly contemporaneous expansion of the permitted cane-planting area of many of the other Pekalongan factories. Colonial prominent amongst them.

What seems to have been in the mind of Simmetz and his successors was the social disruptions which they saw as inherent in Brookhuis. They appear to have viewed the class of peasant farmers (and their dependent laborers) as the backbone of social order in the countryside.

The point which they made repeatedly about Brookhuis was that it threatened the basis of this order by alienating the farmer from his land through the creation of a situation in which the landlord lost access to his fields over a very extended period of time. Sometimes in this thinking, moreover, lay a bureaucratic concern for a rural self-sufficiency in food-stuffs which were denied by the requirements of the sugar industry. This manifested itself adversely towards the class of the First World War, when inter-Asia disruptions to international shipping seemed joined to deny Java the rice imports on which it had long subsisted. In Pekalongan-Tegal, this prompted urgent action at the colonial administration's behest to curtail the amount of land planted to cane.

In fact, however, the several levels of the colonial administration were deeply divided over the claims of the sugar industry and on the issue of Brookhuis, in particular. The dynamics of such divisions were complex: it might well be that an as particular individuals rose through the ranks of the colonial bureaucracy, their stance toward the sugar industry underwent a transformation. D.F. W. van Rees, for example, moved from a position hostile to the sugar industry's ambitions to make long-term contracts with peasant landholders to one in which he declared that such matters were not the legitimate concern of the government. Many high-ranking officials in the early years of the twentieth century, moreover, in terms of education and life experience, had few of the "Ethical" sympathies of their junior subordinates. Money also talked quite directly, particularly at the local level, where there was clearly a likelihood of accommodation between hard-pressed...
government officials - Javanese and Dutch - and the managers of the sugar factories whose operations were within their administrative orbit. In the case of the Comal factory, these considerations appear to have reached the very highest level of the indigenous officials of the native wing of the colonial service. Leastwise, it transpired early in the twentieth century that the Javanese Regent (Regent) of Pemalang had a debt to the factory amounting to the very considerable sum of forty-three thousand guilder.

More to the point, perhaps, was the fact that while the Residency was generally opposed to Breakthrough - though even this was not invariably the case - the central government in Batavia proved to be very reluctant to risk in the sugar industry on this and other counts. While the Director of the Betawi Lands Bessaar, the senior central government official concerned, might appear to sympathize with the arguments of the Resident, he also had to take into account the pressure being applied, both in Batavia and the Hague, by an industry which was both well organized and highly influential. Most obviously, the colonial administration had to take into account the General Syndicate which represented the overwhelming majority of Java's colonial sugar factors and had been established as a lobby group in the 1890s. In the Netherlands, its influence was paralleled from 1911 onward by the Bond (Board of Executives of the Netherlands-Javanese students). The former organization, in particular, was keen to press the industry's case that without recourse to Breakthrough and the access to labor which it especially facilitated, the position of the sugar factories in some parts of Pekalongan, and particularly in labor short Pemalang, would be impossible. The industry, did not deny that Breakthrough (and rental arrangement more generally) had the potential to change the social order in the countryside around the factories. Unlike the officials of the Residency, however, the industry was inclined to regard the development - interalia toward what they explicitly spoke of as 'proletarianisation' - as a accepted fact of life. There may have been some change in their attitude, however, after the labor unrest which beset the industry in 1918-1920, in so far as this brought home to industry managers the negative side of proletarianisation. 'Proletarianisation' might mean not only the 'freeing' of labor from land but also the development of a 'free market' in which the worker might withdraw his labor - which case proletarian activity tended to be dubbed 'political' rather than 'economic'.

In Pekalongan-Tegal, the key players on the industry side were the NHI, the Javanese Carteurningi and the Comal Sugar Company. Though a small company with no other significant business interests in the colony, other than their factories in Pekalongan-Tegal, the Comal company were very well connected. The closely-knit group of aristocratic Dutch families who owned it counted among their number (in the early years of the twentieth century) a recently retired Governor-General
(C.H.A. van der Wijck), and their long-serving Administrateur at Comal, S.C. van Mueschenbroek, could likewise claim kinship to the Governor-General through his mother's family. 4 Hence both Mueschenbroek and his immediate successor at Comal, his brother-in-law, E.J. von Balssseck, felt free to take-up their complaints about the policy decisions of the Resident and his subordinates directly with the Governor General (which is not to say that they made immediate headway there!)

The NHM - owners of the Semberbars, one of the new concessions granted in 1911 - were a ubiquitous presence in the colony, by far the largest single Dutch firm operating in the Indies, and based in Amsterdam. They owned or financed five other factories in Pegalangan-Tegal and had a very substantial sugar investment elsewhere in Java. For this very reason, however, they were perhaps inclined to play it slow carefully: the report of the Government Commission which eventually investigated the Brookhuis question in Pegalangan-Tegal noted that the company's Administrateur at Semberbar (seemingly at the request of the Resident) had cut back on the amount of land taken in Brookhuis, despite the fact that this was immediately disadvantageous to the factory's interests. Not that the NHM necessarily paid heed to it. In 1913, for example, the Subcommission of the NHM's factories was received in audience by Governor-General A.W.F. Idenburg for the purpose of making the company's case that its factories in Pegalangan-Tegal not be subject to the ordinance restricting their rental of land to no more than one-third of the total fields of any one village. On the subject of Brookhuis itself, however, the NHM appears to have proceeded with some circumspection. On the other hand, the third of the main industry players in the Brookhuis issue, the Jan Schae-Ciciumang - or its local managers - appear to have few such reservations. They owned Sf. Petrusan - another of the new concessions granted in 1911 - and the old-established Bandarjawa. The latter factory was singled out by the Government Commission already cited on account of its recalcitrance in clinging to high levels of Brookhuis.

4 Samuel Cornelis van Mueschenbroek, n Okt 1857, d. Annaboren 1914. His mother was Jhr. Mrs. Maria Teuling van Berkhout, sister-in-law of Simon Petronella Sophie van der Wijck (b. Utrecht 1837 d. The Hague 1921) - she had inherited a large estate in Comal on the death of her brother E.J. van der Wijck on 24.12.1874 on account of the latter's marriage to W. H. Teuling v. Berkhout in 1862. Governor-General C.H.A. van der Wijck appears to have been Simon Petronella's brother. Note that he was responsible for renaming in the populaR of R.V. Mullerster for circumventing the landholding/vanroon activities of the sugar industry while GG (1803-1889) and was accused in the Dutch parliament in 1894 of being too sympathetic to the sugar industry see J. van Goor, 'T Plantaan boegmatie in de Koloniale Geschiedenis Van der Wijck bij 'sgeheeld', 'E. van Marum et al., Between People and Statistics. Essays on 20th Century Indonesian History. Presented to P. Creutzberg. The Hague: Nijhoff, 1979, pp. 283-290. On the 'geheimmata' of early 20th century Netherlands, see Mauritius Kruissnaber and Harmut Selig, 'The Dutch Colonial Business Elite of the Turn of the Century', Indonoeva (1988), pp. 61-87.
The Commission itself represented the eventual, tardy response of the central administration in Batavia to a situation which provincial officials had been drawing to the attention for a decade and a half. Even then, its institution probably owed less to official disquiet than the need to be seen as making some sort of concession to increasingly "student" Nationalist complaints that the Indies Government was, at best, spineless in the face of industry pressures. The Commission itself was made up of the four Assistant-Residents of Pekalongan-Tegal, and three officials connected with the State Irrigation Service and the Department of Agriculture, Industry and Trade. One of these latter was J.W. Mejer Ranft, later to rise to considerable prominence in the Indies Government. Their report was treated as a provincial matter, filed eventually in the Archive of the Governor of Central Java and not, as it would appear, forwarded to The Hague. Its potentially damaging recommendations for the phasing-out of Brookhuis were overtaken by events; the decimation of the industry in the Inter-War depression of the 1930s which not only rendered much of it redundant but also put a stop to plans being evolved within the sugar industry of Pekalongan-Tegal late in the 1920s to secure a further and considerable extension of the area under cane - something which would, almost inevitably, have placed Brookhuis back on the agenda of industry-state relations.

Brookhuis, the Sugar Industry and the Agrarian Economy of Rural Pekalongan in the Late Colonial Era.

There can be little doubt that Brookhuis evolved in the context of an industry response to a locally particular agrarian ecology which characterized the eastern half of the Pekalongan-Tegal littoral. Only this can satisfactorily explain why Brookhuis was so rarely encountered elsewhere in late colonial Java and why, even in Pekalongan-Tegal it waslargesconfined to a number of specific districts and the area of some six or seven sugar factories. In a wider frame, however, Brookhuis also brings into focus the complexities and dynamics of the agrarian economy and relations of production in rural Pekalongan which the sugar industry sought to exploit.

* Commission was established in 1919 and submitted its report in October 1921. Apart from the Assistant Resident (one of whom was Chairman), the three other officials (who at the time the Commission reported) were: W.A. van der Menen, van Onderhoof van de Afdeling bruinte aan het Departement der Burgerlijke Oimestamp, T.J. Lekkerkerker, Warenmeed Hoofd Afdeling Landbouw aan het Dept. Landbouw. Neverheless in Handel. J.W. Mejer Ranft, Waarnemend Adjunct Inspecteur voor de Afdeling Wet en Vrijmeele Diensten.

** His almost contemporaneous involvement in "peasant" issues in Central Java is, of course, extremely dealt with by Jim Breman, Control of Land and Labor.
The agrarian social and economic order with which the sugar factories had to deal in late nineteenth and early twentieth century Pekalongan Tegal was one very far removed from stereotypical notions of a self-subsistent and largely homogeneous peasantry. Colonial investigations as far back as the 1850s had delineated a rural society characterised by a significant number of landless, "dependent" households in addition to those categorized as landed. Even allowing for the problematic nature of this mid-nineteenth century cataloguing of the countryside, it would appear that in some parts of Pekalongan -Tegal there were much larger concentrations of landless households than in others. These concentrations were seemingly at their greatest in the area immediately south of the city of Tegal itself, which may go some way toward explaining why the sugar factories there were relatively successful in the mid-century decades. Further to the east, in Pemalang and (parts of) Pekalongan the percentage of landless households in the total rural population was seemingly significantly smaller. As the sugar factories were singularly dependent during the Campaign on a ready and steady turn-out of labor - "three hundred men at six o'clock every morning" was how its was expressed by one factor Administrateur - this in itself may go some way toward explaining the continuing difficulties which many of the factories in the region continued to face throughout the mid-nineteenth century - and later still.

The immediate agrarian context of Baudhaka, however, appears to have been a rather different one. It was the propensity of the petty farmers of large parts of the eastern littoral of Pekalongan-Tegal to concentrate their efforts on the cultivation of fast-ripening paddy during the dry monsoon. The generally accepted picture of 'peasant' agriculture in nineteenth and early twentieth century Java is, of course, one in which the main crop of the agricultural cycle was 'wet' rice grown in the savannahs during the wet monsoon between November and April, followed by a variety of second-crops or Palawija during the subsequent dry season. In the narrow coastal plain of Pemalang - and in some of the contiguous areas of Pekalongan further to the East - there are indications that this pattern was not the norm. In particular, heavy clay soils meant that water stood in the fields longer than was the case with lighter soils, increasing the chances of root-rot and other diseases in the growing paddy. In addition, the particular geographic configuration of the narrow coastal plain of Pemalang and Pekalongan meant that the risk of the standing crops being swept away by the 'hujan pengantik' was unusually high. For these several reasons, a situation arose in which the farmers had opted to expend much of their energy on dry monsoon agriculture, in which the growing of so-called 'dry' rice, dry monsoon paddy or paddy gaga was very prominent. This apparent preference for the cultivation of paddy gaga had excited the attention of colonial administrators in Pekalongan (though not in Pemalang?) as early as the 1850s. It may therefore be
assumed to have been something which predates the expansion of the sugar industry rather than to have been the consequence of it.

This appears pre-dates of the dry monsoon cultivation of paddy-gaga faced the sugar industry with a serious problem, however, the more so after the 1860s, when the factories had to struggle their own supplies of raw material. The problem, broadly stated, was that the industry required its maximum labor inputs at the onset of the dry monsoon. Only then was it sufficiently late under true for the campaign to get underway. Simultaneously, conditions were also optimum for the opening-up of fields for planting with canes for the following year's campaign. This was a situation which held good, of course, for the Java sugar industry as a whole. In parts of Pekalongan-Tegal, however, the pre-plantation dry clay soil both gave a greater danger of harringup the fields before the rains drifted too hard and in any event, tended to make a greater call on labor. At the very same time, however, the work of preparing the ground and planting dry monsoon paddy was also likely to be reaching its peak in the surrounding villages. Broadsides, in this context, was a way of cutting the gorden line. It was kept mind out of cultivation during the wet monsoon, thereby freeing up labor for an early start in opening up land for sugar while doing nothing to damage the local farmers' cultivation of paddy gaga. Indeed, some kind of accommodation on this score may have lain at the heart of the factories' ability - starting with Cornal in the 1890s - to import Broadsides on the countryside. By simultaneously guaranteeing the farmers access to irrigation water during the dry monsoon, the factories took account of what was most probably the farmers' chief concern. The losers, it might be hypothesized, were less the farmers than the landlords' workers of the countryside, for whom labor there was now less competition and whose wage-levels suffered accordingly.

Given these circumstances, why then did Broadsides come to suffer such ostracism in the early twentieth century? A number of reasons may be questioned. One crucial factor may well have been that the great improvements that had been made to the irrigation and drainage systems of Pekalongan-Tegal by the beginning of the twentieth century gave a far greater certainty to wet monsoon paddy, thereby providing the farmers with a greater incentive to retain their fields for the main paddy crop, of else to anticipate far greater compensation for their land being fallowed. Changing attitudes on the part of Residency officials also had a part to play, the more so since those posted to the Pemalang and Pekalongan Kebupatans could see that whereas in their districts 'main crop' paddy production, as a percentage of total paddy outputs, had been falling continuously since the 1870s in neighboring Tegal Kebupatans it had remained more or less constant. Something of this changed attitude can be seen, for example, in early twentieth century Residency documents which reflect firmly on a recent past in which the sugar factories more-or-less did what they liked.
Other factors too, stay well have been involved, though they need further investigation. One was that the increasingly hard-driven, commercialized character of ‘peasant’ cropping in Perakongan-Vegal observable by the opening decades of the twentieth century meant that landholders were less inclined than before to follow the dictates of the sugar industry. This was a course of action in which they were also encouraged by the Sarekat Islam, which had begun to establish a real presence in the countryside by 1913-1914. In this context, moreover, growing socio-economic differentiation and the emergence of people whom the Dutch designated as ‘groot-goedbezitters’ and ‘village-capitalists’ may also have had a significant impact. Was it also the case that the laborers, as well as the rural landholders, were getting more of a voice? As has already been suggested, it was they whose incomes suffered most obviously from the system of *Braakhiuur*, in so far as it reduced the possible options for work available to them.