

Removing the Stain: The Botany-Rockdale Sewage Farm, Sydney, NSW

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This study of Sydney's only sewage farm is concerned with a significant aspect of the urban process. Introduced as state of the art ideology during a short-lived phase of dynamic urban development in the late 1880s, it operated only thirty years before being superceded by the newer technology of ocean outfall disposal - a policy only now recognised as having far greater long term problems. The writer proposes that the lack of surviving visual evidence of this experiment in recycling human waste was part of a deliberate policy to erase it from urban memory. This research was carried as part of a BA Honours program.

The Botany-Rockdale Sewage Farm was a socio-environmental experiment which was formulated in response to the critical sanitary problems in the 1870s. Sanctioned by contemporary ideologies, it employed home-grown empiricism to mutate imported technology into an indigenous enterprise. It was Sydney's only sewage farm, and the earliest, major, government-funded project which attempted to purify, and to utilise, human waste products. The timespan of the Sewage Farm coincided with a period of dynamic urbanisation. During this period, a new ideology of sewage management was introduced. This was in ideological opposition to that which had motivated the formation of the Sewage Farm, and was based on cost-efficient, technolo-emphatic sewage schemes for large-scale urban problems. For a time the Sewage Farm operated as a small self-contained cog serving as a component of the larger, urban machine. Ultimately it was destroyed by the large-scale system, and was closed in 1916; a scant thirty years after it had been opened.

Since the Sewage Farm closed, the Water Board has published two official histories which encompass the water supply, sewerage and drainage works in the Sydney metropolitan area.¹ These histories do not provide an historical synthesis of sewage treatment, and it is apparent that selective historiographic processes have been employed to emphasise specific ideological messages. The Sewage Farm is only briefly mentioned, and emphasis is placed on later ideological developments in sewage technology e.g. the cost and size of the system, how the system works; and constructional difficulties overcome in its production. This historiographic method enforces the existing order, and at the same time, allows the influence of the present to be felt in the perceived past.² As a result, the Sewage Farm and the cultural ideologies which validated its establishment have become historically disenfranchised.

The site of the former Sewage Farm has been intensely modified, and all distinguishing landmarks have been eradicated. The surviving physical evidence is scattered, disparate, and insulate - a ruined corner of a building, a cluster of introduced trees, and a raised earthen platform. These physical remains are anonymous objects, which provide no visual mnemonic to trigger any remembrance of the Sewage Farm. They regain their original integrity only when they are translated into the composite of the total archaeological site. Mark Leone contends that our conceptions of the past are constrained by the past that

survives;³ and the past, in the direct physical form of the Sewage Farm, and indirectly in the ideologies of sewage management that it embodied, has not survived. Like its literary analogue, the Sewage Farm has become physically disenfranchised.

It is evident from the historiographic process used in the official histories of the Water Board that in order to reinforce the progressive nature of later ideological developments in sewage technology it was necessary to devalue the historical significance of the Sewage Farm. It is probable that a rationale of a similar nature can be applied to explain the intense modifications to the archaeological site, as well as the absence of any prominent physical evidence pertaining to the Sewage Farm. This paper therefore proposes the following hypothesis: to reinforce the validity of later ideological developments in sewage technology which disposed of urban sewage by ocean outfall, it was the preferred policy of the Water Board to diminish the physical evidence which distinguished the site of a government-funded Sewage Farm which had employed resource-management and anti-pollution to dispose of urban sewage.

To test the validity of this hypothesis the industrial archaeological site of the Sewage Farm will be examined within a broad historical interpretive construct in order to gain an understanding of the purpose of the Sewage Farm and the ideologies which led to its establishment; the broad-scale ramifications of the later ideological developments in sewage technology which ultimately led to the Farm's closure; and the ensuing partition of, and modifications to, the lands on which the Sewage Farm was situated. The archaeological site and its remains will be located and identified, and examined against relevant documentary evidence. No detailed survey is presented, nor was any excavation undertaken.

DOCUMENTARY SOURCES

There are four main sources for the historical understanding of the Sewage Farm. Each presents a separate argument, and facts are manipulated to suit the purposes of the particular vested interest. Therefore none can be taken at face value.

First: the Annual General Reports of the Water Board were prepared for the Legislative Assembly and tend to accentuate positive aspects of the operation and ignored or glossed over negative aspects. These Reports are the only documents which provide consecutive accounts of

the yearly activities at the Sewage Farm.

Second: the Minutes of Evidence 1875 relate to the Sydney City and Suburban and Health (SCSSH) Board's inquiry into the best means of disposing of Sydney's sewage. They detail the appalling sanitary conditions in the city and suburbs, and a pragmatic attitude to human waste which spanned the class spectrum from judges, to Chinese market gardeners.

Third: the Minutes of Evidence 1906-1908 relate to the Parliamentary Standing Committee on Public Works Inquiry into a Scheme of Sewerage for the Illawarra Suburbs. Among those who gave evidence were the manager of the Sewage Farm who outlined the Farm's physical limitations, operating difficulties, future prospects and other matters, as well as officials and private individuals from neighbouring suburbs who commented upon local attitudes to the sewage farm, and to sanitary/medical matters in general. None of this material is included in any secondary source.

Fourth: the two official histories of the Water Board, which do not present an historical synthesis of sewage or sewage treatment, and the Sewage Farm is only briefly mentioned. Instead, they emphasise and chronicle the technological achievements involved in the metropolitan sewage networks, from point of entry to point of disposal.

It is not possible to confront these historical sources with detailed archaeological evidence. Nevertheless, when viewed as a total archaeological component the site itself illuminates the contradictions and misrepresentations in the documentary sources.

PROPOSED SEWERAGE SCHEMES FOR SYDNEY

The SCSSH Board was appointed in 1875 to inquire into, and report on, the best means of sewage disposal for the city and suburbs.⁴ Board members included scientists with a knowledge of physical and natural sciences, medical professionals involved in the public health arena, and civil engineers. The latter belonged to a new class of professional men attaining prominence in governmental matters involving civic planning and administration, who relied on science and technology to solve the problems created by mass urban living.⁵ The Board's investigations revealed that there was a critical sanitary situation in the city and suburbs, and that the problem of providing adequate water supplies and efficient sewerage systems had assumed metropolitan proportions.⁶ Current medical ideology held that most diseases were either directly, or indirectly, attributable to the gaseous stenches, or miasmas, emitted by putrifying matter, and the Board considered the greatest health risk to the community came from the 'the immediate and palpable evil' generated by commonly used cesspits.⁷ These were virtual on-site storage depots for human excreta, and it was not unusual for a common cesspit straddled by three or four privies, to be shared by the inhabitants of several houses as well as by the patrons of commercial establishments. The removal of such waste products to some remote location was, *ipso facto*, essential for 'the public good'.

Two sewerage systems were recommended for the city and suburbs. Both cut across Municipal boundaries, and both were capable of being controlled by a single overriding authority.⁸ They were to be water-carriage systems; with watertight, underground sewerage mains for transport; and with final disposal points as far removed from human habitation as possible. The first system proposed to intercept the sewage entering Port Jackson through sewers built during the 1850s, and divert it into a tunnel for discharge via ocean outfall at Ben Buckler Point near Bondi.

The second system proposed to sewer the southern slopes of the city, which had an estimated population of only 20 000.⁹ These slopes formed the watershed of the north side of Botany Bay, and included portions of Surry Hills, Redfern, Newtown and other suburbs. Although Sydney's geographical position made ocean outfall the most effective and cost-efficient method of sewage disposal, the SCSSH Board was aware that the Government would not approve the expense of constructing a second ocean outfall to service an area with such a small population. They therefore recommended that the sewage from the southern slopes be intercepted and collected in a similar manner to the Northern system, and disposed of at Botany. There the sewage would undergo a form of land treatment to purify the effluent and render it 'harmless' before discharge into Botany Bay. At the same time, the manurial value of the sewage would be utilised to produce vegetable crops for sale, the revenue from which would be used to offset running costs.¹⁰

This latter proposal was simply an extension of a relatively common domestic activity. A lack of embarrassment towards the functions of the body and its byproducts made it culturally acceptable for home, and market gardeners, to improve the poor quality soil in Sydney by fertilising their gardens and vegetable crops with liquid sewage, 'soup' from boiling-downs, or dried blood. The Board also knew from their investigations of English and European sewage farms that 'the most surprising fertility'¹¹ had resulted from irrigating raw sea sand with sewage, and they were of the opinion that the same results could be achieved at Webb's Grant. The soil was light and sandy, it could be easily cleared, and with proper management and the application of night soil, Sydney's mild winters would allow 'a luxuriant growth of a great variety of useful plants [to] be maintained here throughout the year'.¹²

Webb's Grant, the site chosen for the Sewage Farm, was a 120 ha (300 acres) tongue-shaped tract of land on the southern side of the mouth of Cook's River (Fig.1). It was almost uninhabited. It was an accessible place of deposit, and 'however much then the city and suburbs may extend, it may be made to remain for indefinite period almost isolated... [with] no possibility of any watercourse being polluted'.¹³ The northern side of the river was mainly occupied by small market gardens, generally run by Chinese. These establishments provided most of Sydney's garden produce, and as settlement spread and land use became more intensified, they had gradually been pushed to unwanted areas on the periphery of the city. The Botany Swamps, at that time the source of Sydney's water supply, were also on the northern side of the river. In the 1850s a series of dams had been created along the Lachlan Stream. An engine pond was excavated, and an engine house constructed to pump water to Paddington Heights.¹⁴

THE BOTANY SEWAGE FARM 1880-1889

In 1889 the Metropolitan Water and Sewerage Act Amendment was passed by Parliament, and all existing sewerage systems, including the Sewage Farm, came under the centralised control of the Board of Water Supply and Sewerage, generally called the Water Board.

The main works of the Southern Sewage System were constructed between 1880-1889. Sewage discharged into a recessed chamber inside the Inlet House on the northern bank of Cook's River (Fig.2), and was passed through three sets of circular mesh screens. It was then transferred via an under-bed inverted syphon to a well inside the Outlet House on the southern side of the River from where it gravitated through the eastern portion of the farm in an open, concrete main carrier. The sewage was used to

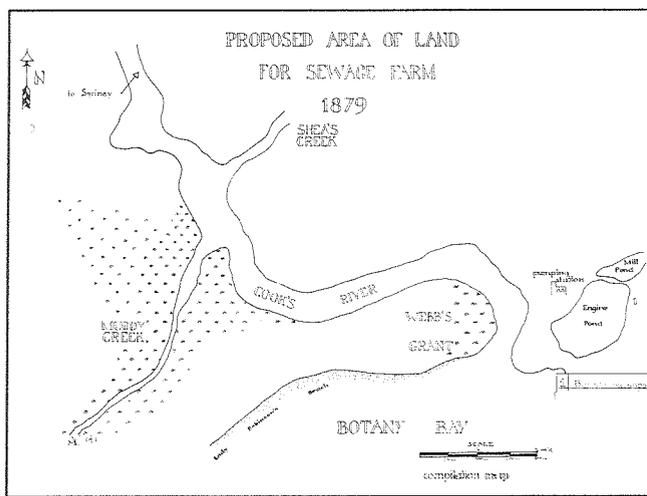


Fig. 1: Map of Botany-Rockdale Sewage Farm.

irrigate the beds on either side of the carrier, and the filtered effluent discharged into Cook's River and Botany Bay. A manually controlled Priestman grab mounted on a travelling gantry dredged the remaining sludge in the screening chambers for transfer into waiting skips, via chutes set into the side of the Inlet House. It was trucked by locomotive across a wooden bridge spanning Cook's River to the irrigation beds, where the farm's labourers manually dug it into the beds as manure (Fig.3). Crops were grown on the sheltered, northern side of the main carrier in a series of terraced, ridged and furrowed irrigation beds, which were separated by earth banks. On the exposed southern side, about 4 ha (10 acres) of partially underdrained ground was laid out in filtration beds. These received surplus sewage during heavy rainfall.

The farm commenced operating in 1887, and seven labourers were employed under the control of a manager. After three years of continual applications of sludge, about 8 ha (4 acres) of land were converted to a good loam from which successful crops of cabbages, turnips, lucerne and sorghum and other produce were grown. The Water Board's annual reports noted that the quality of the crops evidenced the value of liquid sewage when properly applied to raw sand, and lengthy inclusions from the Government Analytical Chemist declared that the high quality of the effluent demonstrated the suitability of the site and soil for purifying sewage by land filtration. However the Farm never produced enough income to cover operating expenses. To generate additional income some land was let for agistment, and around 1892 some land near Muddy Creek was leased for market gardens to Chinese and Europeans.

The Farm was in an exposed position. Sand blown by prevailing south-east winds destroyed early attempts at crop growing on the southern side of the main carrier. This limited the amount of land capable of producing crops, and reduced anticipated income. Documentary sources do not indicate if the SCSH Board was aware of this factor when choosing the land, but site inspections testify to the fact that strong breezes sweep across the area, even on the calmest day. Although never clearly specified in official accounts, irrigation with crude sewage was not completely successful, and prolific growth could only be expected during a good rainy season. It was excellent for established crops, but was generally too strong for irrigating newly seeded land, as it burnt the plants.¹⁵

Webb's Grant was limited in size, and in choosing the

English method of intermittent downward filtration the decisive factor had been the increased filtering capacity provided by underbed drains which were laid on the herringbone principle about a metre deep. To prevent soil clogging and maintain maximum filtering capacity, sewage applications were rotated. These applications could also be varied i.e. broad irrigation, ridge-and-furrow irrigation or flood irrigation.¹⁶ However, the imported system did not adapt successfully to local conditions as the sand was so fine it filtered through the gaskets choking the underground drains, and preventing the flow of sub-soil effluent. This impeded the filtration rate and the beds became sewage-logged. In one unsuccessful attempt to remedy this fault, the effluent drains were dug up, 'and after some trouble a cement joint, made of Nepean sand and cement mixed in proportions sufficient to make it porous, and at the same time, cohesive', was adopted.¹⁷

Around 1894, it was discovered that 'a coir mat wrapped around each joint and sewn on',¹⁸ would successfully serve the purpose. Some of the material, 'made in the form of a mat', was found 'to be as sound as the day it was put in', after being buried in one of the filtration beds for over twelve months.¹⁹ In line with the models proposed by Birmingham and Jeans, and later by Schreuder, this is a classic example of the modifications required before an imported technology could be adapted, mutated and eventually 'indiginised'.²⁰ Unfortunately the available information is tantalisingly insufficient. The Water Board's reports add little more, and it is doubtful if any other sources would elaborate on such a detailed point. The form of the coir used is unknown, and although the situation was critical, to wrap and hand-sew coir mats around every joint in all the underground effluent drains seems an extraordinarily laborious procedure. Furthermore, it seems too cumbersome a method to repel fine sand. As it is likely that many of the drains are still *in situ*, archaeological excavation is the only method which would explain exactly how this ingenious solution was accomplished.

Contemporary Attitudes to the Sewage Farm

Official histories relegate the role of the Sewage Farm to that of an experimental, temporary expedient. However, contemporary accounts belie this pejorative depiction, as does the quality of the buildings which were erected on the site. The deliberate matching of the Inlet and Outlet Houses, and the elaborate architectural detailing of their facades, represent a formal expression of civic pride in the establishment, and an external indication of the importance placed on the modern technological equipment which they housed. Pride in the establishment is also evidenced in the May 1892 edition of the *Illustrated Sydney News*, which describes, and illustrates, the Southern Sewerage System in considerable detail. A visit to the Sewage Farm is recommended; the best time being after a heavy storm to see how the 'inky tide within the carrier swells and threatens to become a banker'. Indirectly the article also indicates a lack of embarrassment regarding the evacuation processes of the body that is alien in today's society, but which made the concept of the Sewage Farm acceptable to nineteenth century society.

Each year specific monies were allocated to improve the appearance of the Sewage Farm. Although never a stated policy, documentary and archaeological evidence indicate that the Water Board's longterm intention was to transform the Sewage Farm into an environmentally attractive, self-sufficient working environment. A substantial tree-planting program was instigated, which was still in progress in 1908. Fifteen hundred ornamental trees and shrubs were purchased from the Director of

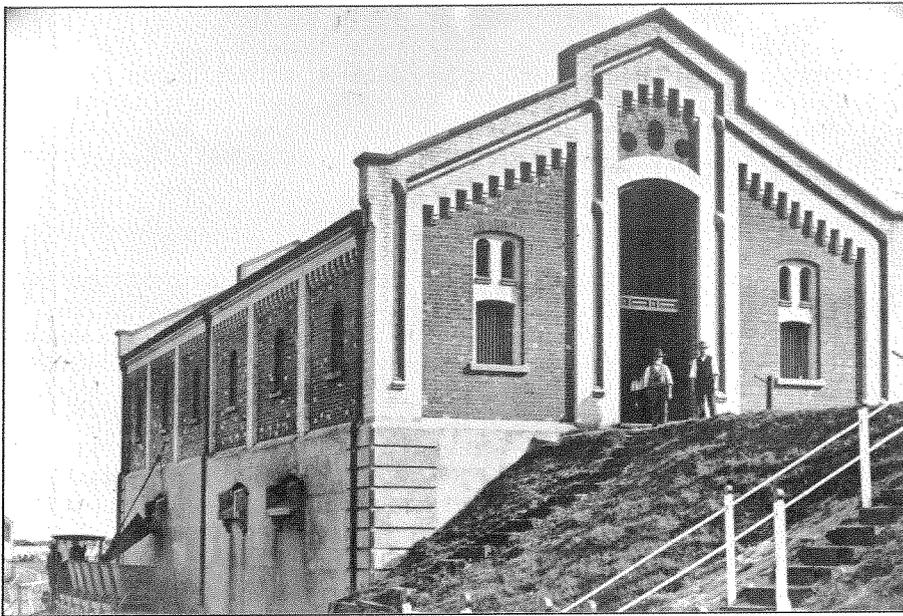


Fig. 2: The Inlet House at Botany Sewage Farm. (Archives of Sydney Water Board).

Fig. 3: Sludge being deposited into a waiting skip from the side of the Inlet House. (Archives of Sydney Water Board).

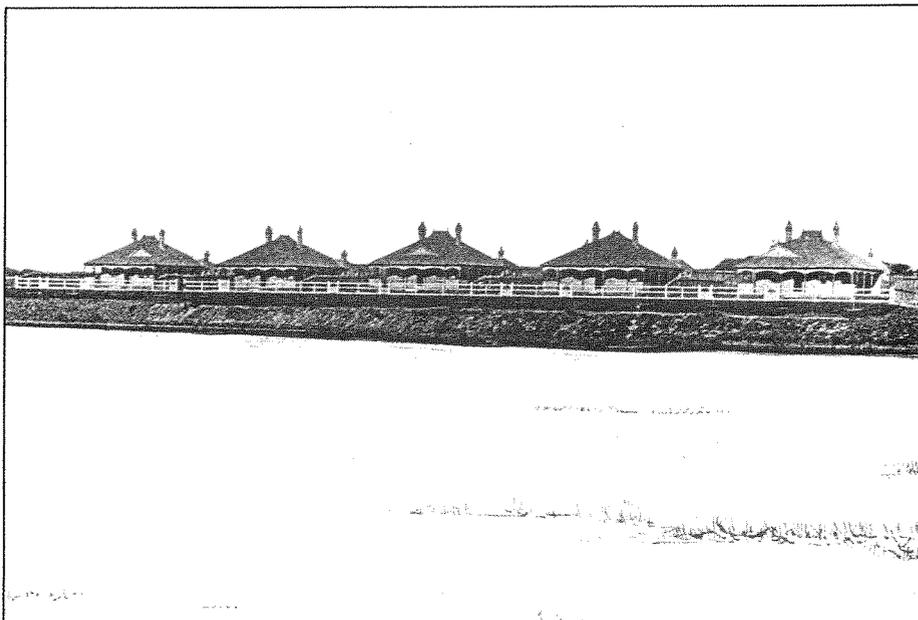
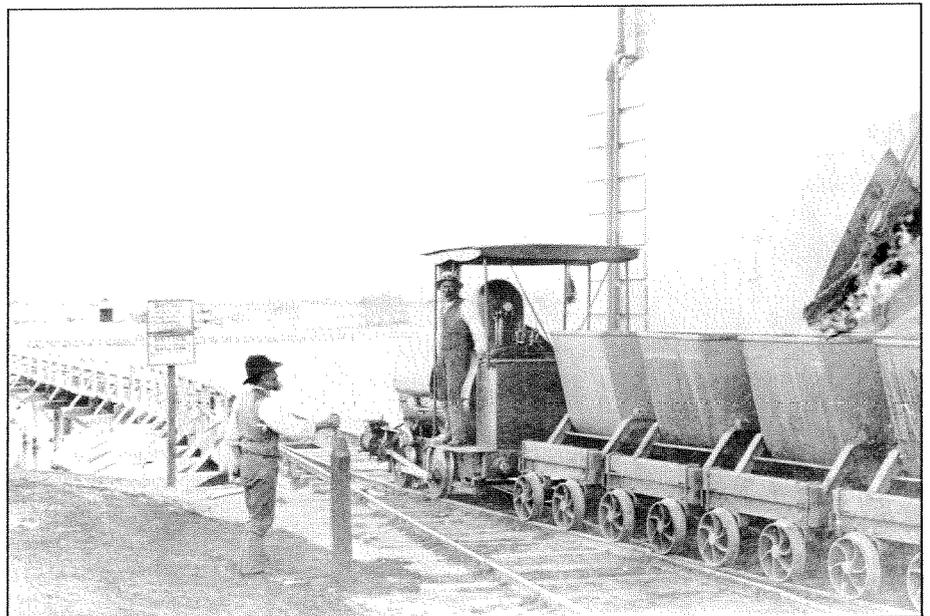


Fig. 4: Cottages built for the labourers at the sewage farm in 1898.

Botanical Gardens in the first year, and after trial and error it was found that Norfolk Island pines and Moreton Bay figs did especially well. Over 6 000 willows were also purchased. Apart from their attractive appearance, these were mainly planted in water-logged areas where their moisture-absorbing capacities would do most good. The trees were intended to enhance the Farm's appearance, provide useful and ornamental windbreaks, and afford shade for the cattle.

The manager was provided with a residence at the Botany end of the Farm, and in 1898, five workmen's cottages in 'brick with tiled roofs to neat design', were erected on resumed land at Lady Robinson's Beach.²¹ (Fig.4). The cottages were rented to the Farm's labourers, and were intended to conduce the appearance of the place. The foreshore bank of Botany Bay was trimmed and grassed, and the land enclosed by a substantial fence with entrance gates to keep out trespasses. The railway was also extended across Muddy Creek to the new western perimeter of the Farm at Eve Street, Rockdale, principally to convey farm employees' children to school.

Western Suburbs Sewerage Scheme

During the 1890s work commenced on the nucleus of the immense Western Suburbs Sewerage Scheme, which proposed draining portions of nineteen municipal districts, and was designed to meet the future requirements of the entire area. The Scheme was based on the superiority of a technologically-emphasised system which would eventually underpin the total suburban landscape with a network of self-regulating and self-cleansing sewers unobtrusively transporting all sewage to ocean outfalls for final disposal. The decision was taken to dispose of the sewage from this large system on resumed land adjacent to the Sewage Farm. An additional 124 ha (309 acres) of land were resumed to the west of Webb's Grant to form the Botany-Rockdale Sewage Farm, which placed the western perimeter on the edge of the populated Illawarra suburbs. Much of the resumed land was totally unsuitable for filtration or crop growing purposes as it was swampy, and subject to tidal influence. Saltwater could be found about 20–22 cm (8 or 9 inches) under the surface of the sand,²² and when maximum filtering capacity was required it was necessary to flood the land with sewage to a depth of 30 cm. To make way for the larger and more cost-efficient urban sewage scheme, the Sewage Farm became a disposal area for immense quantities of urban sewage. In 1896 the Board had been able to report that 'the high standard of purity hitherto reached is still maintained',²³ but by 1902 analyses of the effluent showed that it was 'merely clarified sewage', which putrefied when it was incubated.²⁴ The resource-management and anti-pollution ideology which had motivated the establishment of the Sewage Farm was now superseded by a different ideology of sewage.

The scattered nature of the Illawarra suburbs had begun to change with the construction of a railway from Sydney to Wollongong in the 1880s, and by the turn of the century the locality was undergoing its own process of urbanisation. The changed nature of the newer method of sewage management had begun to alter private perceptions of human waste products, and while not yet a universal desire, many people considered that until their suburb was supplied with an efficient sewerage scheme it lacked total gentrification. It was deeply resented that the sewage from the western suburbs was dumped on the local doorstep. It was generally demanded that the Sewage Farm be totally abolished, and all sewage be disposed at sea where it could not be seen or smelt. Despite the fact that miasmatic-based medical beliefs were no longer current, it was considered

to be a malodorous blot on the local landscape which depressed property prices in the locality; deterred a 'better class' of people from settling in the area; and prevented any 'decent residences' from being built for many years.²⁵ One resident described it as a foul nightmare which looked like a 'big sheet of water' in wet weather.²⁶

Partition and Disappearance

Following a Parliamentary Inquiry held between 1905-1908, it was recommended that the Sewage Farm be abolished, and the sewage disposed into the ocean at Long Bay. The Botany-Rockdale Sewage Farm ceased operating in September 1916, when the Southern and Western Suburbs Ocean Outfall Sewer (SWOOS) No.1 was completed. The Farm cottages were let, and the plant and railway were sold in 1919. SWOOS No.2 was constructed in 1941. Both systems traversed the Sewage Farm and the existence of archaeological remains along their paths is unlikely, as their construction created considerable ground disturbance. The main carrier is not visible in aerial photographs taken in 1947, and was probably demolished when SWOOS No.2 was built. Sections of the concrete foundations could still exist in archaeological form.

Excepting about 18 ha (45 acres) retained by the Water Board along the path of the ocean outfall line, the lands were disposed during the 1930s. Rockdale Council reclaimed an area in the south-western corner to create a large recreational park.²⁷ The main areas of activity (irrigation and filtration beds) were occupied by a public area abutting Botany Bay, designated Cook Park, and two golf links on the northern side of the peninsula. Crop marks from ridge-and-furrow cultivation methods in the irrigation beds were visible in a 1950s aerial photograph, indicating minimal ground disturbance when these new land uses were developed. Consequently some below-ground archaeological evidence may have survived, particularly the filtration drains with their coir wrappings, as it would have been an unnecessary expense to remove them.

Between 1947-1956, Cook's River was diverted south of its original mouth to a new outlet into Botany Bay, to allow for extensions to Kingsford Smith Airport. A large area of land was resumed, including much of the site of the Sewage Farm, and during the ensuing civil engineering works, the Inlet and Outlets Houses were demolished. The foundations were probably left *in situ*, as the ground level was raised to create a new east-west runway, and the demolition rubble used as fill in the old river bed. The under-river syphons were probably left *in situ*, along with other archaeological deposits, some of which could predate the original installation in the 1880s. The workmen's cottages were demolished following the 1963 extension of the north-south runway into Botany Bay.

The Site Today

The site of the original Botany Sewage Farm now forms part of the airport complex, and orientation is extremely difficult as all distinguishing landmarks were obliterated by the airport extension (Fig.5). Nevertheless, site inspections are invaluable as they animate a comprehension of the environmental context, which allows an appreciation of the Sewage Farm as a working entity in a specific physical location. Despite busy airport traffic, the area still has a feeling of isolation which makes it easier to understand why the site was chosen in the first place. Yet the exposure of the land to the winds from the Bay, the fine sandy soil, and the scrubby nature of existing vegetation, clearly demonstrates the unsuitability of the

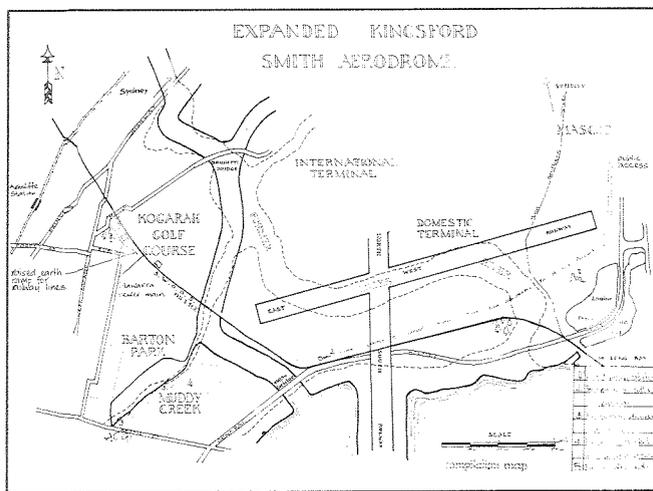


Fig. 5: The site today.

location for crop growing activities on a commercial scale.

The diversion of Cook's River had a radical effect on the physical site of the Sewage Farm. The new course of the river bisected Webb's Grant, alienating the Botany end of the Sewage Farm from the Rockdale extension. Also, the archaeological remains associated with the Botany water works and Mill Pond, which were originally on the opposite side of the River, became adjacent to the site of the Botany Sewage Farm when the disused river bed was filled in. Consequently the physical site of the Sewage Farm has become more obscured by the proximity and prominence of these archaeological remains, which are associated with some of Sydney's earliest history.²⁸ One direct link to the past is provided by a group of small Chinese market gardens which still operate alongside Muddy Creek, on low-lying land that was formerly part of the Sewage Farm.

A rear corner from one of the workers' cottages, eight brick-courses high, is the only remaining above-ground bricks and mortar structure from the Sewage Farm. Located outside the perimeter of the airport alongside General Holmes Drive, the site is discernable by demolition rubble, possibly from the former cottages, which is scattered between fairly dense native shrubbery resulting from natural revegetation. Despite the passing traffic, the site of the workmen's cottages is isolated. This isolation would have been even more pronounced when the cottages were first built, as they were situated on the extreme south-east perimeter of the Sewage Farm, quite remote from any other habitation. This remoteness must have increased the construction costs of the dwellings, reinforcing the fact that, at the time, the Sewage Farm was sufficiently important to have its workers housed on site, despite the expense. The context in which these cottages were built also highlights the more fundamental attitude to human waste products which then prevailed. The Sewage Farm would have been the focal point for those who lived in this isolated enclave, as external contact could only be gained by traversing the Farm to Arncliffe in the west, or by crossing Cook's River to Botany in the north.

On the western perimeter of the site is a small area of land now known as the Eve Street Wetlands. These are a relic of a larger water system originally paralleling the western margins of Botany Bay, and may be a surviving remnant of a pre-European landscape. The Wetlands are a valuable archaeological indicator, as a portion of this system was incorporated into Rockdale Sewage Farm. The land was left largely untouched because it was unsuitable

either as a filtering medium or for crop-growing purposes. This very unsuitability illustrates the change in ideologies pertaining to sewage technology. With the commencement of the Western Suburbs Sewerage Scheme, it was ideologically more important to have a disposal area for large quantities of urban sewage, than to have a sewage farm which could purify and husband the resources of relatively small quantities of sewage. The swampy, low-lying nature of the area also demonstrates the physical difficulties in draining and desalinating the land to make it suitable as a filtering medium, and the magnitude of filling carried out during, and since, the closure of the Farm, which increases the survival rate of archaeological remains.

It is possible that a brick building used by Rockdale Council, which is adjacent to the the Wetlands, could contain some archaeological evidence. It is situated almost directly over the site of the screening chamber, which was in use at this end of the Farm.²⁹ However the only above-ground archaeological evidence at the Rockdale end of the Farm is a stretch of earthen embankment, which carried the railway past the swamplands to its termination point at Marsh Street, Rockdale, and a stand of pine trees, which are remnants of the Farm's tree-planting programme.

The two disparate sets of archaeological evidence – the remains of the worker's cottages on the south-eastern perimeter and the railway embankment and pine trees on the western perimeter – are virtually located on opposing extremities of the Sewage Farm, and are out of sight of each other. In conjunction with each other, they serve as archaeological indicators delineating the spatial distribution, as well as the size of the Sewage Farm, which appears far too large to have been attended successfully by a manager and seven labourers. Significantly, both sets are associated with the attempts to improve the appearance of the Sewage Farm and to make it a self-sufficient working environment. All traces of the working establishment have been totally abolished.

DISCUSSION

Despite miasmatic-based medical opinions, nineteenth century pragmatism saw nothing amiss with utilising human excreta to improve the soil and encourage crop growth; such practices were an indication of good husbandry. A government-funded sewage farm which proposed purifying sewage by land treatment, as well as utilising the manurial value of the sewage to produce and sell vegetables commercially, was therefore neither unusual nor unacceptable; indeed there was considerable civic pride in the establishment, as witnessed by the elaborate public buildings which were erected at the Farm. Contemporary literature also indicates that, for most of the 1890s, the Sewage Farm managed to fulfil its goals, and was well regarded. However during this decade the ideologies which had motivated the establishment of the Botany Sewage Farm in the mid 1870s were superseded by an ideology of sewage management which was based on large-scale and cost-efficient technologies. The Sewage Farm became officially expendable in the late 1890s when it was extended to provide a sewage disposal area for the immense Western Suburbs Sewerage Scheme.

The twenty years prior to the turn of the century had been characterised by intense urbanisation. One of the effects of this process on the residents in the adjacent Illawarra suburbs had been to develop an awareness of their own collective identity. Miasmatic-based medical opinions had altered, but so had earlier fundamental attitudes to human waste products. While many residents considered the prestige of the area would be enhanced by

an efficient scheme of sewerage similar to that of the Western Suburbs, the majority strongly resented the sewage from the Western Suburbs Scheme being deposited so close to their suburbs. The Sewage Farm became privately expendable, when its malodorous proximity was considered to be a threat to the welfare and prosperity of the local community.

When the lands were partitioned during the 1930s, almost all of the site of the Sewage Farm was alienated for sport or recreational facilities. Rockdale Council created a large park, by raising the level of the land and obliterating the swamp lands in the south-west corner. An action which could be regarded as vindicative, as by totally changing the landscape, unpleasant memories associated with former landmarks were effectively eradicated. In 1939 the Sewage Farm became historically expendable when it was virtually written out of the Water Board's first official history. An historical process that was to continue when the second history was published in 1969.

Although it was never a stated policy of the Water Board, archaeological expendability was simply the final step in the process of reducing the Sewage Farm to a non-event in terms of sewage disposal techniques. No official, or private, objections were raised when the extensions to Kingsford Smith Airport proposed restructuring most of the site and demolishing the remaining buildings associated with the Sewage Farm. Significantly the archaeological evidence associated with the earlier Botany water works and Mill Pond survived the massive extensions to the Airport; the Inlet and Outlet Houses did not. Failing any hard evidence to the contrary, it would appear that the severe modification to the archaeological site of the Sewage Farm, as well as the absence of any prominent physical evidence, came about not through neglect or disuse, but by a change in the official ideology of sewage management. This ideological change caused the Sewage Farm to become defunct. It also caused the Sewage Farm to become such an anathema to the people in the local neighbourhood, that any action by any authority which aimed to replace or obfuscate the Sewage Farm with a 'respectable' alternative would not have been discouraged.

In the late twentieth century the disposal of sewage by ocean outfall has become a culturally acceptable fact of urbanised living, and the method of disposal is seldom called into question, despite pollution of the city's beaches. So far has the cultural pendulum swung from the more fundamental approach of the nineteenth century, it is probably fair to say that most people are unaware that Sydney once had a sewage farm which employed resource-management and anti-pollution techniques to dispose of urban sewage. To paraphrase Mark Leone, we only know the past by what we can see, and ignorance of the Sewage Farm has been fostered by the absence of any conspicuous archaeological evidence and the severe modifications to the site. This absence has had the effect of allowing its memory to fade from the collective consciousness, while simultaneously it has reinforced the ideological validity of current sewage technology. The past has been reinterpreted to buttress modern identity, and there is no place in this modern identity for the Sewage Farm.

NOTES

1. Henry, F.J.J. 1969. *The Water Supply and Sewerage of Sydney*, W.V. Aird 1939. *The Water Supply, Sewerage and Drainage of Sydney*.
2. Schiffer, M.B. 1981. 'Introduction' in R.A. Gould & M.B. Schiffer (eds), *Modern Material Culture: The Archaeology of Us*, Academic Press.

- 3 Leone, M. 1981. 'Archaeology's Relationship to the Present and the Past' in R.A. Gould & M.B. Schiffer (eds), *Modern Material Culture: The Archaeology of Us*, Academic Press, pp. 5-13.
4. Twelfth and Final Report, SCSSH Board, 11 May 1877, p.1.
5. For discussion on the ramifications of self-perpetuating technological systems such as the sewerage system of Sydney see Beder, S., 1990. 'Early Environmentalists and the Battle against Sewers in Sydney'. *Journal of the RAHS*, 76:24-41.
6. F.J.J. Henry *op.cit.* p.1.
7. Twelfth and Final Report, SCSSH Board, 11 May 1877, p.4.
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10. Debate on Sewage Disposal, Minutes of Evidence SCSSH Board, 1875, p.142.
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28. These remains are currently under review as part of the Botany Wetlands Heritage Study Report prepared for the Federal Airports Corp. & the Sydney Water Board, May, 1991, W. Thorp, B. McDonald, C. Burton, T. Brassil.
29. Oral information supplied by N.J. Thorpe.