

PROCEEDINGS  
OF THE  
CAMBRIDGE ANTIQUARIAN  
SOCIETY



VOLUME XLV

JANUARY 1951 TO DECEMBER 1951

CAMBRIDGE  
BOWES AND BOWES

1952

PROCEEDINGS OF THE  
CAMBRIDGE ANTIQUARIAN SOCIETY

THE UNIVERSITY OF CHICAGO

PH.D. THESIS

BY

DAVID J. GALE

IN

PHILOSOPHY

AND

THE HISTORY OF IDEAS

AND

THE HISTORY OF PHILOSOPHY

AND

THE HISTORY OF SCIENCE

AND

THE HISTORY OF MATHEMATICS

AND

THE HISTORY OF LITERATURE

AND

THE HISTORY OF ARTS

AND

THE HISTORY OF CULTURE

AND

THE HISTORY OF SOCIETY

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THE HISTORY OF ECONOMICS

AND

THE HISTORY OF POLITICS

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THE HISTORY OF LAW

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THE HISTORY OF MEDICINE

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THE HISTORY OF AGRICULTURE

AND

THE HISTORY OF TECHNOLOGY

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THE HISTORY OF ENVIRONMENTAL STUDIES

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THE HISTORY OF EDUCATION

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THE HISTORY OF PSYCHOLOGY

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*Published for the Cambridge Antiquarian Society  
by Bowes & Bowes Publishers Limited  
Cambridge*

*Printed in Great Britain at the University Press, Cambridge  
(Brooke Crutchley, University Printer)*

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# SIR CORNELIUS VERMUYDEN AND THE GREAT LEVEL OF THE FENS.<sup>1</sup> A NEW JUDGEMENT

L. E. HARRIS, A.M.I.MECH.E.

I AM NOT going to pretend that in the past a lot has not been written about Cornelius Vermuyden, but I would go so far as to say that, if a lot has been written, in the end very little has been said and of that little a lot has been inaccurate. In the popular mind Vermuyden is the man who drained the Fens, but, of course, the Vermuyden story is not quite so simple as that, and this statement is in itself inaccurate because his work in the Fens was confined to the Great Level, or Bedford Level as we know it to-day, and this comprises only about 307,000 acres of the Fenland as a whole, or something less than half the total area of over 700,000 acres. I am not suggesting that that fact in any way detracts from the greatness of Vermuyden's achievement, but it is cited as an example of the rather loose thinking associated with the man, if, indeed, there has been much thought devoted to him. That, perhaps, is rather strange if it is realized that undoubtedly he did occupy a position of some considerable, if varying, importance in England during the thirty-five years from 1621 to 1656, after which he disappeared behind a curtain of obscurity which has not yet to my knowledge been pierced.

Korthals-Altes, the Dutch writer, has produced what is, perhaps, the longest story to be concerned with Vermuyden—if we except the writing of Samuel Smiles—but he is inaccurate in many details. Furthermore, he has dealt in his book almost entirely with the Hatfield Chase undertaking and given only a page or two to the Great Level, by far the most important of Vermuyden's activities.

In a life so complicated as that of Vermuyden it would be impossible, within the compass of a short paper, to deal in any sensible or adequate way with more than a portion of this life, and the limited objective of this paper is to examine and dissect something of the story of Vermuyden and the Great Level in order to arrive at what, it is hoped, is a new and reasoned judgement not of the work alone but also of the man himself, and a judgement based not so much on new information but on a re-evaluation of established evidence.

In expressing the doubt whether much thought has been devoted to Vermuyden I base that statement on the conclusion that almost up to the present day it has been customary to form a judgement on him not on an independent evaluation of the available evidence but on what has been said before. To paraphrase what

<sup>1</sup> This paper was read to the Society on 12 February 1951.

Fox-Davies said about the study of Armory, 'some statement appears in a book about Vermuyden, it is copied into book after book, and accepted by those who study Vermuyden as being correct, while all the time it is absolutely wrong'. Hence the adverse criticisms and condemnations of the seventeenth century were repeated in the eighteenth and nineteenth, and even in the twentieth century, so that, starting with the rather vindictive pamphlets of Andrewes Burrell in 1641, there has been a progression of adverse criticism of such individuals as, for instance, Thomas Badeslade, Charles Labelye, Samuel Wells, Miller and Skertchley jointly and Skertchley individually, to the happily more enlightened, and hence more charitable, judgements of to-day based on a wider knowledge of hydraulic principles and of the particular problems of the Fenland.

I have no intention of entering into a discussion of any complicated hydraulic principles involved in the draining of the Fens. There is no conclusive evidence to show that Vermuyden ever had any scientific training, even within the limits of his own period, and from the evidence of his own *Discourse touching the Drayning of the Great Fennes* which was published in 1642, the reasoning on which his practical remedies were based was simply that of common sense, or pure empiricism. That was the only course to pursue because not only was there not at that time any developed science of hydraulics, or perhaps it would be more correct to say of hydrology, even if he had had the training, and moreover, the drainage of low-lying lands was not in the seventeenth century, and it is not now, an exact science. Fen drainage may, perhaps, to-day involve the applications of the principles of a developed science of hydrology to individual problems such as siltation, erosion, and so on, and also the application of the more recently developed science of soil mechanics, but it still remains to a large extent within the province of practical experience and common sense. Not that I am suggesting that it is an easy problem. It is far from that, but what I want to emphasize is that my main consideration is not drainage principles but rather Cornelius Vermuyden the man.

Nor is it intended to relate what would be the rather tedious details of Vermuyden's career in England. These have been referred to time after time in the past with varying degrees of accuracy, but I give below a brief chronology in order to provide some idea of the background against which he was working and against which, as it were, this paper has been prepared.

He was born about the year 1590 or 1595. The *Nieuw Nederlandsch Biografisch Wordenboek* gives the former date and the *Dictionary of National Biography* the latter. The place of his birth was St Maartensdijk, in the isle of Tholen, in the province of Zeeland. He came to England in or about the year 1621, in which year he carried out the repair work to the banks of the Thames at Dagenham with somewhat doubtful success. He drained Windsor Park for James I in 1623. In 1624 he and his wife were naturalized. In 1626 he signed an agreement with Charles I for the draining of the 70,000 acres of Hatfield Chase in Yorkshire. In 1628 he purchased the manor of Hatfield from the Crown for £10,000. On 6 January 1628/9 he was knighted by Charles at Whitehall and one wonders if the contribution of £10,000

to the royal treasury had anything to do with the knighthood. Later in 1629 he was very nearly appointed undertaker for the drainage of the Great Level of the Fens. In 1630 he was engaged by Francis, fourth Earl of Bedford, as Director, or chief engineer, of the work of draining the Level. In 1638 when Charles declared himself the undertaker for the draining Vermuyden was again appointed Director. In 1649, after a lot of bitter argument, he was again appointed Director of the work of draining by the Adventurers of the Bedford Level, with William, fifth Earl of Bedford at their head, subsequent to the passing of the so-called Pretended Act of May of that year. The last occasion on which his name appeared in the Proceedings of the Adventurers was on 4 February 1655. In 1656 he unsuccessfully petitioned Parliament for permission to proceed with the draining of Sedgmoor, Somerset, 4000 acres of which he had purchased from the Crown some years previously for the sum of £12,000, and from that date onwards he disappeared completely from the records of history.

And the inevitable question is why—assuming of course that we admit, as I think we must, that Vermuyden was important.

In order to help us to answer that question it is desirable to know what kind of a man this Cornelius Vermuyden was. Plate II is a portrait of Vermuyden, painted by the Dutch portrait painter van Miereveld some time before 1641, which is now in the possession of the present writer owing to the generosity of Col. Noel to whom it originally belonged, Col. Noel being a direct descendant through the Earls of Gainsborough of the second creation of Anna Margareta Vernatti, great-granddaughter of Abraham Vernatti, one of the original participants with Cornelius Vermuyden in the undertaking of Hatfield Chase in 1626. It is believed to be the only portrait of Vermuyden extant.

But the interest of the portrait lies not in its history but in what it shows of the man himself. It is suggested that it was painted about the year 1638 when Vermuyden was at the height of his power and in the full favour of Charles I. It shows a man of obvious determination, a quality of which he had ample need in his later, bitter, struggles against all the obstacles with which he was faced. It shows also, perhaps, a man with more than a touch of aggressiveness, a quality, or shall we say disability, partly responsible in the end for the defection of his friends and his final passing unrecorded and unregretted.

Now whether he was born in 1590 or 1595 is a matter of little account, but there is no doubt that at the time of his birth the Vermuydens had been established in St Maartensdijk for a long time and were of no little importance. There is a record of a Colard van de Muden being concerned in the reclamation of the Middelland Polder in the 'waterschap' of St Maartensdijk as far back as 1339, and, coming forward some two hundred years, in 1570 one of the aldermen of St Maartensdijk was Bartel van de Mue, alternatively known as Bartel Marinuss Vermuyden, a grandfather of Cornelius Vermuyden.

Cornelius Vermuyden's mother was Sarah Werckendet, one of a family of some prominence in the town of Zierikzee, the capital of the neighbouring isle of Schouwen,

and her brother, Burgomaster Lieven Werckendet, had been prominent in the work of embanking and impoldering in the isle of Schouwen, and in the construction of the harbour of Zierikzee.

Plate III shows a plan of the town of St Maartensdijk made in the year 1696 and undoubtedly represents substantially the state of the town at the beginning of the seventeenth century when Cornelius Vermuyden lived there. A feature of interest is the inner basin of the harbour on the left-hand side of the plan. It is known that it was the practice in the small ports of Zeeland at that time to utilize such an inner basin as a means of scouring the main harbour by the simple method of allowing this basin to fill on the flood tide, closing the sluice between the two, and then when the main harbour was partially empty on the lowest ebb, opening the sluice and allowing the water from the inner basin to flow rapidly into the main harbour and thus scour out the silt carried in on the flood. This principle was certainly employed at Zierikzee and was undoubtedly known to Vermuyden, even if in later years changing conditions caused its abandonment. To-day only the outer harbour of St Maartensdijk remains but the market square, so conspicuous in the seventeenth-century plan, still retains all the essential features which must have been so familiar to Vermuyden.

Vermuyden was undoubtedly brought up against a background of land reclamation but it is interesting to note that in 1621, when, as he tells us in his own words, he 'was come over to England, invited to this work [of the Great Level]',<sup>1</sup> he was then employed as a tax-collector in the neighbouring town of Tholen.<sup>2</sup> I do not suggest that this fact proves or disproves anything about the experience which he brought with him, but it may lend support to the theory that the reopening of the Spanish War in 1621 after the 'Twelve Years' Truce, and the consequent cessation of land reclamation schemes in Zeeland, may have been the reason why Vermuyden left the Netherlands and sought employment in England.

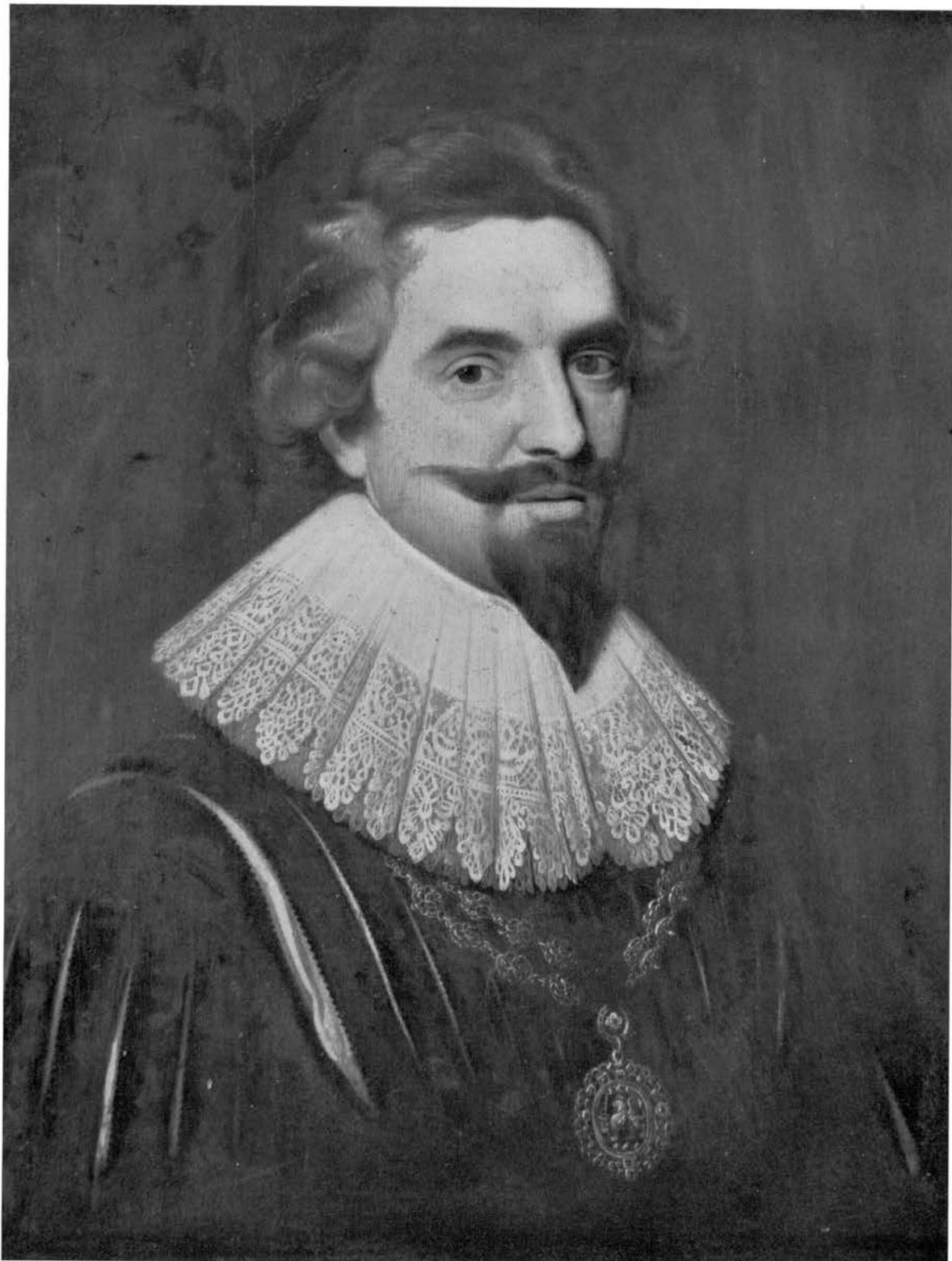
Why then was Vermuyden 'invited', as he tells us, to come to England to examine the problem of the Great Level? It is intended only to deal with the personal side of that question and there is no intention to discuss the question of the generally awakened interest in the drainage of low-lying lands in the Elizabethan and Stuart reigns.

In the town of St Maartensdijk at the beginning of the seventeenth century the family of Liens was probably of greater importance than that of the Vermuydens. It is true that it has not been possible to find a reference to the family as far back as 1339, the year when Colard van de Muden appears, but certainly in the early sixteenth century they were conspicuous, and as far as the administrative side of polder reclamation is concerned, in 1580 a Jacob Liens is mentioned in connexion with the Hikkepolder of Oud-Vossemeer on the north-east side of the isle of Tholen.<sup>3</sup> There is to-day a tablet on the front wall of the little seventeenth-century town hall in the market square of St Maartensdijk which commemorates the fact that Cornelius Liens was a member of the town council in the year 1628.

<sup>1</sup> *Discourse*, 1642.

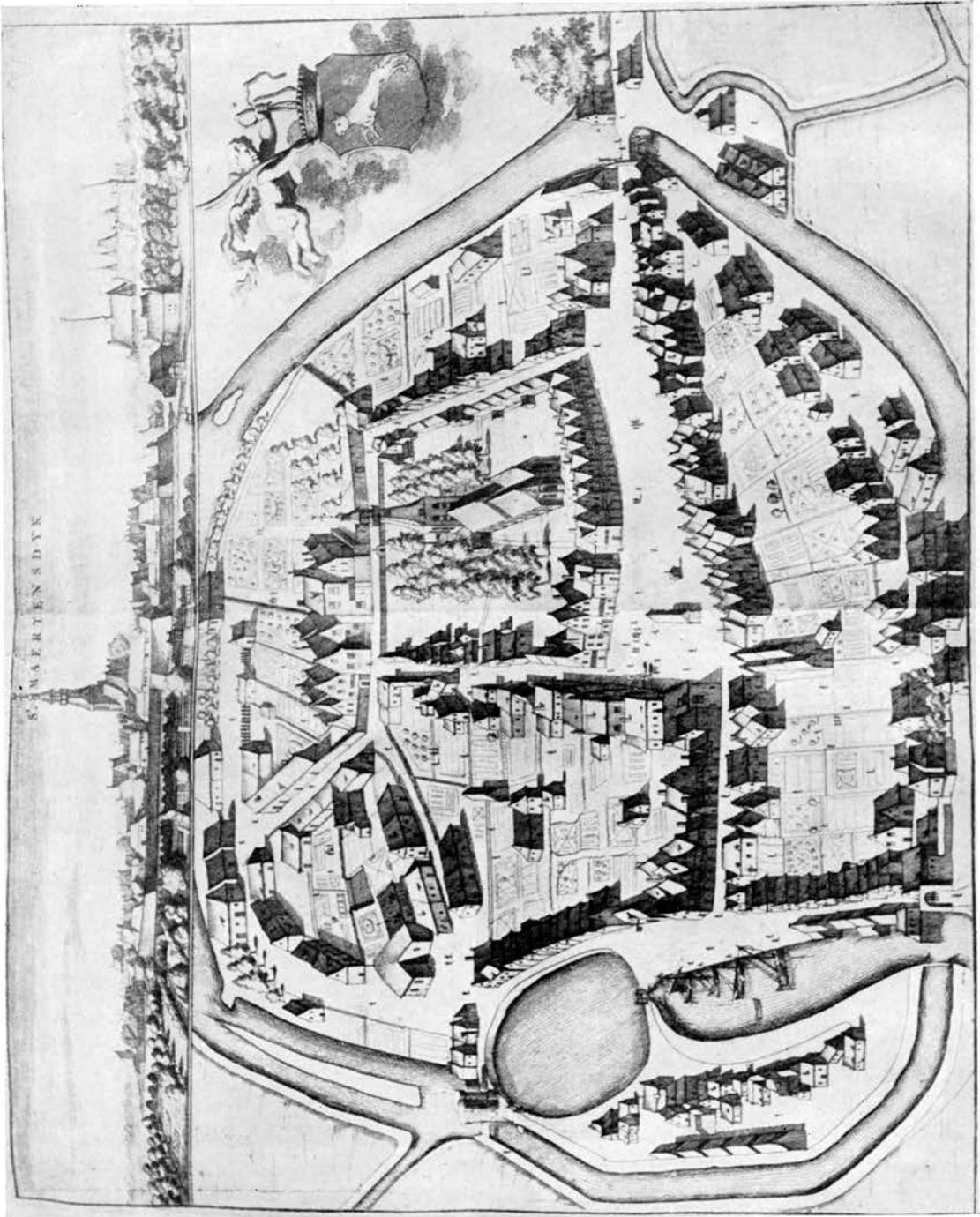
<sup>3</sup> A. Hollestelle, *Het Eiland Tholen*.

<sup>2</sup> F. Nagtglas, *Levensberichten van Zeeuwen*.



SIR CORNELIUS VERMUYDEN  
Contemporary portrait by VAN MIERVELD (1567-1641)

PLATE III



Plan of the town of St Maartensdijk from *Nieuwe Cronyk van Zeeland*, 1696

There is a record in the archives of St Maartensdijk<sup>1</sup> of a contract made on 4 October 1614 by the town council with Pieter Henderickss, clockmaker of Bergen-op-Zoom, for the building of a new town clock, similar to the one which he had already made for the town of Arnemuiden, for the sum of 316 Flemish pounds, 13 schillings, 4 groats, and details are given of the sums which were to be contributed towards this cost by various prominent citizens headed by the 'rentmeester', Joachim Liens, for the sum of 8 pounds, 5 schillings, 8 groats. Mention is also made of Jacobus, Phillipus and Hendrik Liens and of Cornelius Vermuyden and his brother, all of whom contributed either to the cost of the clock or to that of the new church bells.

Now Cornelius Liens had been in negotiation with James I on the subject of the draining of the Fens as far back as 1606<sup>2</sup> but the negotiations had then broken down, and in 1622 he had again been associated with Cornelius Vermuyden in further proposals which again came to nothing.<sup>3</sup> It was, however, another member of the family, Joachim, the principal subscriber to the town clock and brother of Cornelius, who really made his mark in England when he arrived in 1618 in company with two others as special envoy for the Netherlands Government to discuss matters concerning the Dutch East India Company and the herring fisheries. He was knighted by James at Theobalds in that year.

Joachim had married as his first wife Cornelia Vermuyden, sister of Cornelius, and when she died some time before 1612 he married as his second wife Sara van Hertsbeeke whose sister, Susannah, was married to Lieven Werckendet, Cornelius's uncle. This, perhaps, produced a somewhat complicated relationship but, complicated or not, it seems clear that this relationship resulted in the introduction to James of Cornelius Vermuyden as being capable of dealing with the problem of the Fens, presumably from the technical point of view, but bearing in mind that the Hatfield Chase undertaking of 1626 was financed entirely by capital from the Netherlands, it is possible that James anticipated the adoption of similar means in the case of the Great Level.

I cannot subscribe to the view which is sometimes expressed that the introduction came from Joas Croppenburgh, the Dutchman who embanked Canvey Island. In the first place Croppenburgh's agreement for the work on Canvey Island was not signed until April 1622, a year after Vermuyden had been invited to England for the work in the Great Level and had begun his work at Dagenham. Furthermore, my feeling is that if Croppenburgh had recommended anyone it would have been himself, as there was no lack of rivalry between the several Netherlanders then striving to make the most of their opportunities in England.

The year 1621, then, saw Vermuyden installed in England with many years of work in this country in front of him, but I am going to ignore completely the work which he did at Dagenham, Windsor Park, and at Hatfield Chase, in spite of the fact that the last of these undoubtedly had a profound influence on the principles and

<sup>1</sup> *Archief St Maartensdijk*, nr. 1, fols. 49, 51, 52.

<sup>2</sup> *Cal. S.P. Dom.*, James I, XVIII, 101.

<sup>3</sup> *Ibid.* cxxvii, 145.

methods of drainage which he adopted in the Great Level. But I must make this comment on Hatfield Chase.

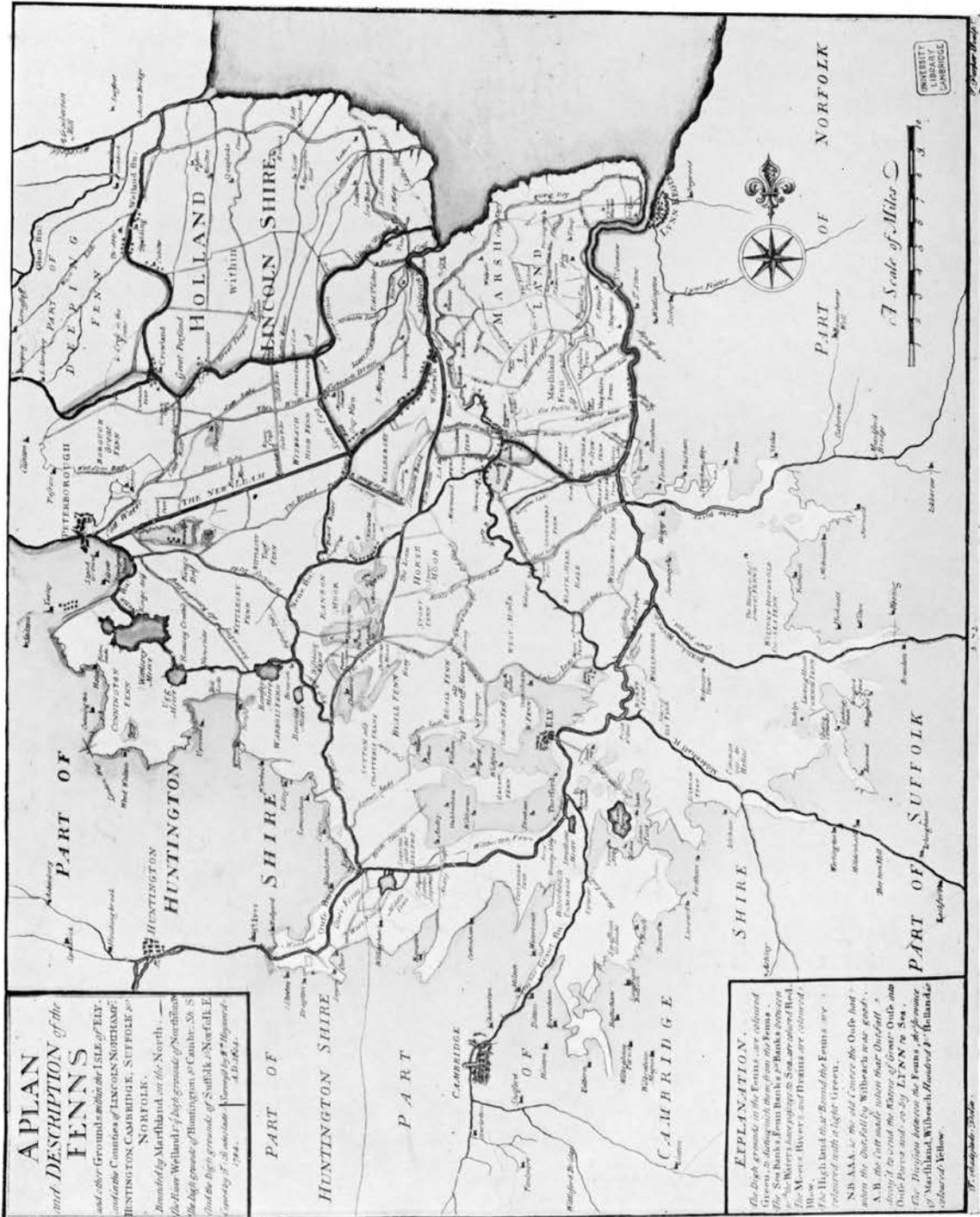
There is little doubt in my mind that when in 1626 he started the drainage work there Vermuyden was tackling something bigger than, and different from, anything which he had dealt with in the Netherlands, and therefore was to a certain extent experimenting with his methods. Dr Fockema Andreae of Leiden has suggested to me that the polder country of the isle of Tholen contributed little, if anything, to the practical development of Vermuyden, if only for the reason that the problems to be solved there were of very small scale. With this I agree entirely, and would go further by saying that the essential nature of the problem of polder reclamation with which Vermuyden probably had to deal was fundamentally different from that encountered in Hatfield Chase or in the Great Level. Now as Vermuyden has so often been accused of applying the methods employed in the Netherlands to his work in England, I think it would be as well to examine a little more closely what that fundamental difference was. But first let me say this. The Hatfield Chase undertaking was undoubtedly a financial failure, except, perhaps, to Vermuyden, but to my mind it was not technically a failure. The land there was eventually made fit for arable and pasture, at a cost, and if it did nothing else, it provided Vermuyden with the experience which he needed and which he was to utilize in the Great Level. And it is on the results achieved in the Great Level that his reputation must stand or fall.

Plate IV is the map from T. Badeslade's *History of the Navigation of King's Lynn* of 1725 copied from Hayward's original survey of 1604, and it shows the state of the Great Level before the Earl of Bedford's undertaking of 1630 was begun. In other words, it shows the state of the Level when Vermuyden, as he tells us himself, 'took several views thereof, went away, returned, and re-viewed the same, took advice of the experienced men of the Low Countries, and from time to time did study how to contrive that work for the best advantage'.<sup>1</sup> From this map it is quite clear that, particularly taking into account the northern boundary of the Level, the problem of the Great Level was, and still is, essentially a 'drainage' problem as opposed to an 'embanking' problem, and a problem involving drainage by means of rivers having their outfalls several miles outside the Level.

Plate V<sup>2</sup> will give an indication of the conditions prevailing in Zeeland. On the left is shown the 'waterschap' of St Maartensdijk as it was at the end of the thirteenth century, and on the right it is shown in its present state. The so-called isle of Tholen, of which the 'waterschap' forms part, was once an island in fact although now joined to the mainland and, in common with the other islands of the province of Zeeland, is merely the product of silt accretions in the estuary of the Scheldt extending over many centuries and combined with the 'impoldering' activities of the Zeelanders themselves. It will be clear that the problem of impoldering was essentially one of embanking as opposed to draining. In the thirteenth century the 'waterschap' of St Maartensdijk consisted of one polder, the Oudeland Polder, and from that it grew to its present state by successive embanking, or impoldering, of the silt marshes.

<sup>1</sup> *Discourse*.

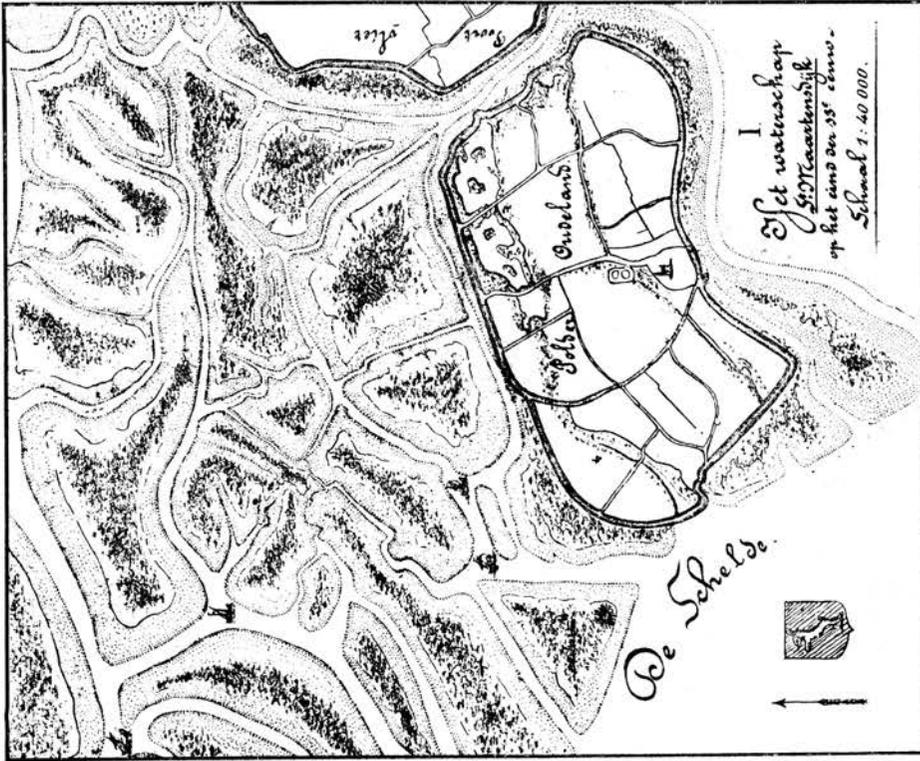
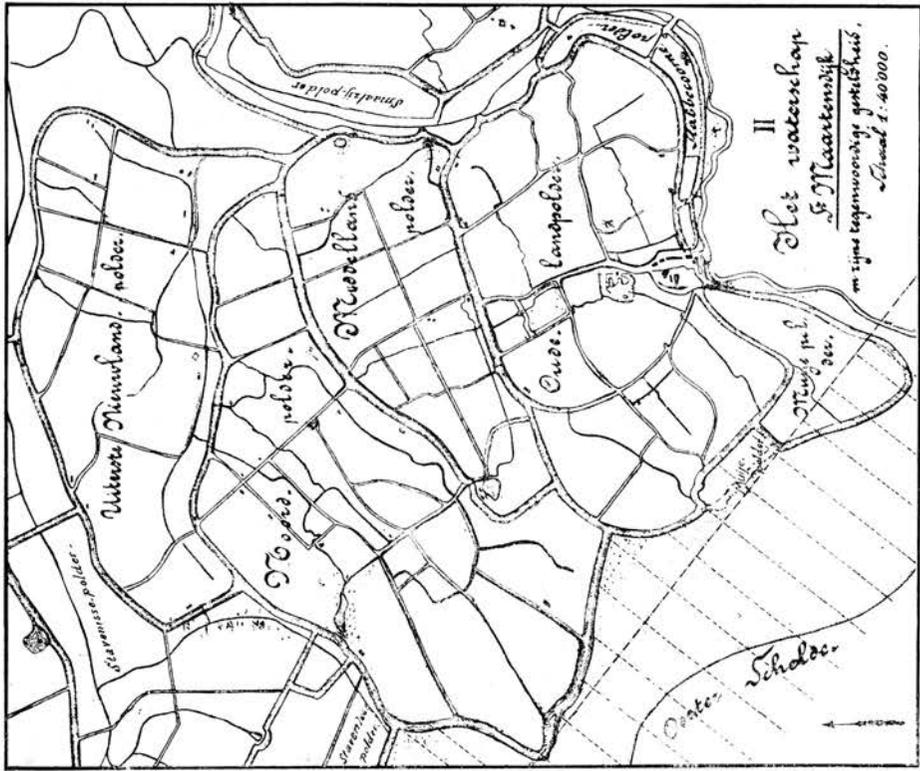
<sup>2</sup> A. Hollestelle, *op. cit.*



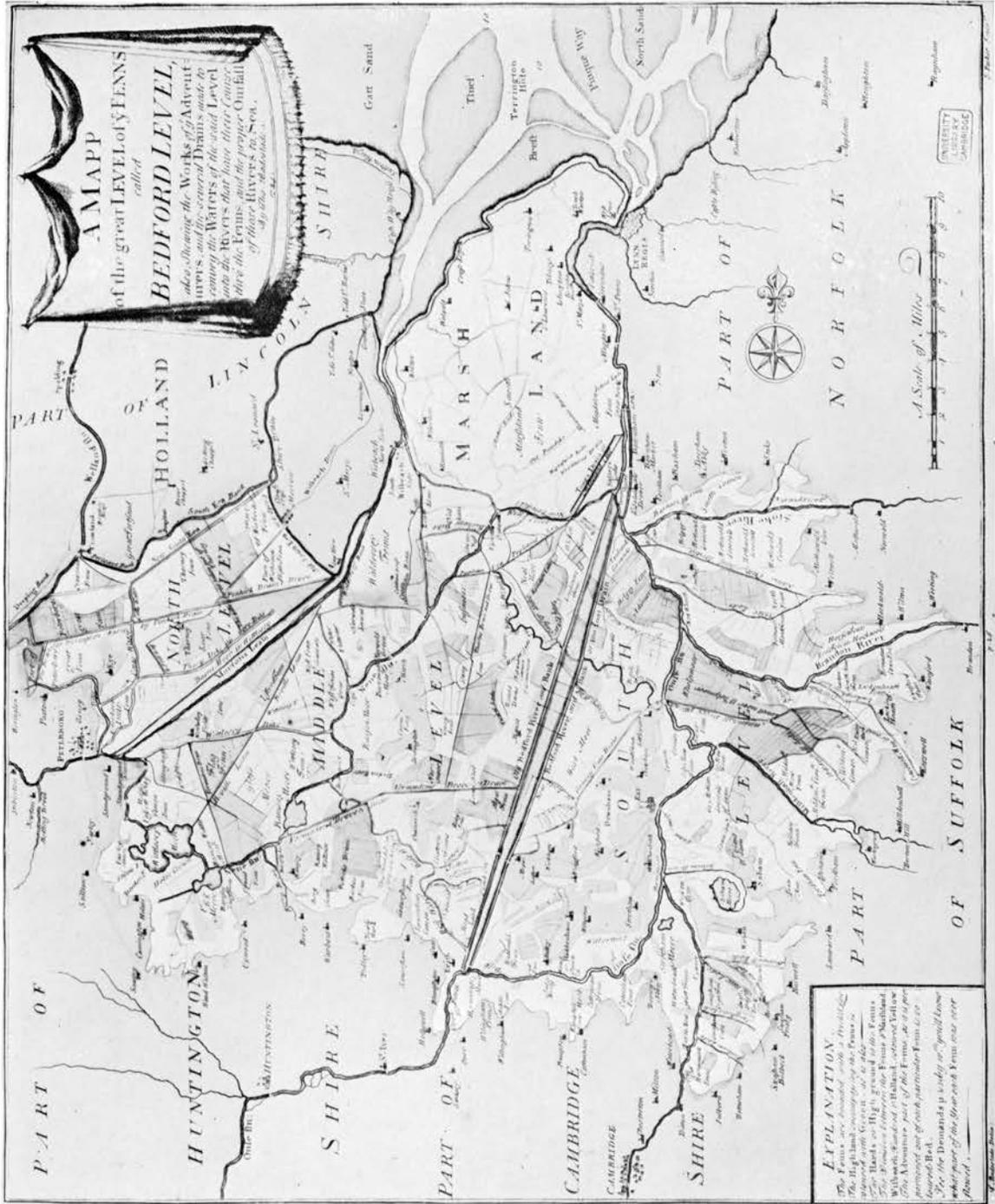
**APLAN**  
**and DESCRIPTION of the**  
**FENNS**  
 and other Grounds within the ISLE of ELY,  
 and the Counties of LINCOLN, SHIREHAMPTON,  
 HUNTINGDON, CAMBRIDGE, SUFFOLK &  
 NORFOLK.  
 Drawn by Mertholme, on the North. —  
 The River Welland & high Grounds of Northhampton  
 the high Grounds of Huntingdon, & Cambr. Sh. S.  
 and the high Grounds of Suffol. & Norfolk E.  
 Corrected by F. Blount, Surveyor of the Highways,  
 A.D. 1724.

**EXPLANATION.**  
 The high grounds in the Fens are coloured  
 Green, & being within them from the Fens.  
 The Banks of the River Great Ouse are  
 marked with a double line, & the  
 the Mares Rivers, and Drains are coloured  
 Blue.  
 The High Land that bounds the Fens are  
 coloured with a light Green.  
 S.B. A.A. is the old Course the Ouse had  
 when the Ouse-filling with which was made.  
 A.B. the Cut made when that Ouse-filling  
 being made, to send the Water of lower Ouse into  
 Ouse-filling and by LYNN to Sea.  
 The Division between the Fens, & the Province  
 of Northland, with which Hundred of Belandale  
 coloured Yellow.

Map of the Great Level of the Fens, based on Hayward's survey of 1604, from Badeslade's History of the Navigation of King's Lynn, 1725



The 'Waterschap' of St Maartensdijk (left) at the end of the thirteenth century, (right) at the present time



Map of the Great Level of the Fens, showing state of the drainage works in the year 1655



It must not be forgotten that Holland as we know it to-day consists largely of the delta portions of two rivers, the Maas and the Rhine, while Zeeland itself is part of these same deltas combined with deltaic material from the Scheldt. The direct cause of the deltas is the convergence of these three rivers into what is known as a tidal-node area where the creation of non-scouring conditions results in silt deposition.

Now Vermuyden, whatever his other faults, was no fool, as he certainly would have been had he failed to see this fundamental difference. The fact that he 'took advice of the experienced men of the Low Countries' does not mean that he slavishly followed that advice and adopted methods which were applicable to Zeeland but which were totally unsuited to the Great Level. His *Discourse*, indeed, proves that he did not.

Plate VI, the map also reproduced from Badeslade's book, shows, as the title says, 'The Works of the Adventurers, and the several drains made to convey the Water of the said Level into the Rivers' and it does substantially represent the state of the Level at the time when Vermuyden left the employ of the Adventurers in 1655. There are, of course, many other maps showing the Great Level in its pre-drainage and post-drainage states, but I have chosen these of Badeslade because, among other features, they possess the advantage of being directly comparable the one with the other and with the map shown in Plate VII. This is, in fact, the map which accompanied Vermuyden's *Discourse* of 1642 and it illustrates in a rather elementary manner what Vermuyden had done since 1630 and what he proposed to do as described in the *Discourse*. There are only two features which it is necessary to emphasize on this map, namely the old Bedford River made in or about 1632, and the proposed new channel intended to unite the rivers Lark, Little Ouse and Wissey.

I should emphasize, however, that I have no intention of giving a long description of the drainage works over the entire Bedford Level and I am going to confine my arguments solely to the South Level and to the two Bedford Rivers because, while the North and Middle Levels had a fairly respectable existence after Vermuyden's departure, the South Level experienced many vicissitudes and, with the Bedford Rivers and Denver Sluice, created arguments and bitter discussions which continued for over two hundred years, and has always been the most controversial part of the Level as a whole.

It is well known that the employment of new straight cuts to supplement or replace the existing tortuous river courses was one of Vermuyden's fundamental principles, a principle which brought him into direct conflict with his fellow countryman and bitterest rival Westerdike. The two Bedford Rivers are to-day looked upon as a monument to Vermuyden, and rightly so because he made them, but it is sometimes overlooked that the original conception of the old Bedford River was not his. Its construction had been advocated as far back as 1605 by a Commission of Sewers headed by Sir Robert Bevil.<sup>1</sup> Vermuyden was doubtless aware of this and although, therefore, the conception is denied to him, he must be given the credit for seeing the value of the principle which this straight cut represented, and for the energy with

<sup>1</sup> W. Dugdale, *History of Imbanking and Draining* (2nd ed. 1772), p. 381.

which he implemented a system of drainage after centuries of inertia and apathy in the Fens. The old Bedford River was begun some time after 1630 and was completed before the year 1637, and the reason for its existence is fairly clear. It was intended to supplement the winding course of the Ouse between Earith and Denver. But why the new Bedford, or Hundred Foot, River?

Now it will be recalled that Vermuyden in the map which accompanied the *Discourse* published in 1642 had shown how he proposed to unite the rivers Lark, Little Ouse and Wissey into one common channel to relieve the Great Ouse between Earith and Denver, but he showed on this map no second Bedford River, although the somewhat obscure wording of the *Discourse* might lead to the conclusion that he had the intention to make this. To-day will be found the second Bedford River but no common channel, which inevitably leads to the question as to why this is so.

Between the year 1638, the year when the *Discourse* was written, although it was not published until 1642, and 1649, when the undertaking in the Great Level was resumed after the Civil War, much history was made outside the Level but very little work was done inside. What passed between Vermuyden and the Adventurers after the resumption in May 1649 until December of that year, when it was finally decided to appoint him Director of the works, is written cautiously in the Adventurers' *Proceedings* which are now in the Fen Office at Ely. I say cautiously because although the bare entries in the minutes of the meetings give some indication of the clash of personalities which occurred, they cannot show the bitterness which clearly prevailed at those meetings. Nor do they tell us the details of the scheme of drainage which was eventually agreed upon.

At the commencement of the new undertaking the plan laid down in the *Discourse* still stood, and during the seven months of acrimonious discussion Vermuyden fought resolutely for his principles. He complained of the 'comptrolment', as he called it, which the Adventurers, laymen as they were, proposed to exercise over his work. He pointed out that all the time there would be the cry of 'expend not so much, do not such a work so good and so substantial'—these are his own words as recorded in the minutes of the meeting. He refused to accept the task with a rigid limit of expenditure, but in the end, and I suspect for the sake of peace and quietness, he bowed to the opposition and reluctantly sacrificed his principles. He abandoned the combined channel for the Lark, the Little Ouse and the Wissey, but realizing that this part of his plan to relieve the Ouse had to be jettisoned, he also realized that some other means of relief had to be evolved. That means was by the Hundred Foot River and it is my opinion that he had to make this larger than he had originally intended because, by the abandonment of the combined channel, the function of this new Bedford River was considerably modified.

This is all mainly surmise. It can be nothing more, but one fact that is certain is that Vermuyden was never permitted to carry out the whole of the work which he knew to be necessary for the draining of the Great Level. The two Bedford Rivers and the missing combined channel are not the sole proofs of this. Yet in spite of the restrictions which were imposed on him he very nearly succeeded completely in his

task. And modern judgement, three centuries later, justifies not only what he did but also what he was not permitted to do, and this applies not only to work within the limits of the Level but also to what he advocated should have been done on the outfalls of the rivers.

But all this gives no explanation of why he disappeared so completely after 1656, and why he inspired so much antagonism and bitter criticism after his disappearance. The answer to these questions lies, I believe, in his aggressive and uncompromising character which destroyed his friendships and created all the bitter jealousies. It may be that his disappearance was not unconnected with his intimate association with Oliver Cromwell, a theory which has not yet been fully investigated. I do not think that Vermuyden was a likeable man. There is plenty of evidence to prove that he was involved in almost continuous disputes throughout his known life. It is well known that even in his initial employment on the work at Dagenham he fell foul of the Commissioners of Sewers there, so that they refused to pay him anything when, according to him, his work was completed, and I am of the opinion that, whatever may have been the rights or wrongs of that dispute, had it not been for the very strong support which he had both from James and from Charles, this first employment might well have been his last.

But even allowing for his quarrelsome nature, it must not be overlooked that he had the misfortune to coincide with a period of constant change in the ruling caste of England, and as those changes occurred so he fell, however slightly, in favour. Nor had he the firm friendships to sustain him in these changes and so in the end his passing was unrecorded and unregretted. At least, that is my present theory based on the evidence available, but I am also convinced that he was not quite so black as he has sometimes been painted.

Samuel Wells, Register of the Bedford Level Corporation in the early years of the nineteenth century, published his *History of the Bedford Level* in 1830, and because he had full access to all the documents in the Fen Office this is a very valuable book to any student of the Bedford Level, but mainly only as a record of facts. Unfortunately in the last hundred years or so the judgement of Samuel Wells on Vermuyden has too often been accepted without question, and without the realization that Wells had an axe to grind, at least as far as Vermuyden was concerned, and thus in his book he expresses an unreasoning dislike amounting almost to hatred of Vermuyden. When Wells was writing, the Governor of the Bedford Level Corporation was John, Duke of Bedford, successor in a long line of Russells to Francis the fourth Earl, and Wells, attempting to ingratiate himself with his noble employer, set out to demonstrate that all the benefits of the original undertaking flowed from Francis, and William his son, the fifth Earl, while all the difficulties and failures—and there were plenty of these in the early years—could be attributed to Vermuyden whom he described as ‘an incubus, a nightmare, which the Corporation vainly endeavoured to shake off’. This was said particularly in relation to the dispute which went on from May to December 1649 between Vermuyden and the Adventurers over his appointment as Director. The records of the meetings at which

these disputes occurred appear in the first volume of the *Proceedings* in the Fen Office at Ely, and a dispassionate and I hope unbiased examination of these minutes leads me to the conclusion that Vermuyden was no incubus, nor was it then the desire of the Adventurers to be rid of him, whatever may have been their later feelings. He was, in fact, a sorely tried man, and if it was his earnest desire to be Director that was quite understandable because he knew that he was the only one who had the necessary experience of the Level, and a plan for the drainage which could lead to success. The Adventurers themselves were quite aware of this fact and, as the minutes of the meetings show, on every occasion when the negotiations broke down it was the Adventurers who made the first approach for their resumption, not Vermuyden.

Wells ignored these facts and by a judicious selection of the extracts from the *Proceedings* was able to create in his book the impression that Vermuyden was the villain of the piece, the incubus, the man to whom, as he also said, 'posterity offers no tribute of respect'. But in making these statements I am not in any way attempting to disparage Wells. He, no doubt, was a very estimable man. All I am trying to do is to vindicate Vermuyden in spite of Vermuyden himself, because I should be the last to say that Vermuyden was a paragon of all the virtues. I believe that he was astute, aggressive and overbearing, possibly unscrupulous and, according to the standards of to-day, somewhat dishonest, and I certainly doubt whether his behaviour in the Hatfield Chase undertaking would bear much investigation. But I am not concerned with his morals. As far as the Bedford Level was concerned his intention was to get something out of the Level for his own benefit, which was exactly the aim of the Earls of Bedford and all the other Adventurers. They were none of them philanthropists. Nor, for that matter, was Samuel Wells.

In the end Vermuyden reaped little permanent material benefit from the Great Level, or from any of his other widespread activities. Up to now, and principally on the testimony of Samuel Wells, it has usually been accepted that after 1656 he sank into a state of poverty and disgrace, and died in destitution. That, undoubtedly, is an exaggeration as even if he was compelled to dispose of his possessions in Hatfield Chase and in the Great Level, when he died, contrary to what is usually stated, he certainly possessed his 4000 acres of Sedgmoor and his interest in the lead mines in Derbyshire. These two possessions formed the subject of several suits in the Chancery Court on the death of his eldest son, Cornelius, in 1693 to whom they had descended on his father's death.

Where Sir Cornelius died I do not think that anyone can yet say. When he died is another matter. He was certainly not the Cornelius Fairmeadow with whom he is identified in the *Dictionary of National Biography* and who, it was stated, was entered in the register of St Martin-in-the-Fields as having been buried there on 6 April 1683. My main reason for saying so is that an examination of these registers reveals the fact that Cornelius Fairmeadow was buried at St Martin's on 6 April 1638, not 1683, and in that year, and for many years later, we know that Cornelius Vermuyden was very much alive. Cornelius Fairmeadow had a completely separate

existence and his identification with Cornelius Vermuyden in order to provide a date for the death of the latter (and the *Dictionary of National Biography* was not primarily responsible for this error) was the result of a lot of muddled, wishful thinking. All I can say about the death of Vermuyden is that, as far as I can ascertain at present, he died in 1677/8.

Cornelius Vermuyden was an interesting and intriguing character and a perpetual enigma. But he was more than that. It is not necessary to be a drainage engineer to appreciate the immensity of the task which he accomplished in the Great Level. That is apparent from a sight of the Fens themselves. Whether the principles of drainage which he adopted were right or wrong is a matter which can be decided only on technical considerations and, as I said earlier, modern and therefore more enlightened judgement justifies the principles and methods on which Vermuyden's scheme was based, even though he was not permitted to do all that he knew to be necessary. In other words, posterity does offer him some tribute of respect, in spite of what Samuel Wells said one hundred and twenty years ago.

# PROCEEDINGS OF THE CAMBRIDGE ANTIQUARIAN SOCIETY

VOLUME XLV

JANUARY 1951 TO DECEMBER 1951

15s. net.

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