

LELYSTAD - A NEW TOWN

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Introduction

Physical planning in The Netherlands has lost its way for some time. The status of this discipline has become uncertain, and important decisions about the future which have spatial consequences are taken without reference to the usual circles.

For planning historians there is no ideal planning. They can only try to reconstruct series of events, placing them in a wider context and asking critical questions. One such question is that of the changes which have brought about this decline in physical planning. If it is posited that the decline began with the introduction of 'open' or process planning, a proposition for which the planners themselves have advanced many arguments in recent years, the study of the planning of Lelystad as a laboratory for process planning forms an interesting test case. While the 'open plan' -- a form of planning no longer based on a preconceived final state of the projected polders, but on an open concept to be filled out gradually, depending upon the decisions taken in the various policy sectors -- was introduced for the planning of the southern IJsselmeer polders in about 1959, Lelystad was still planned up to 1965 according to the end state planning tradition. The collision between these two concepts forms the subject of this article.

With the granting of provincial status to the North East Polder and Flevoland on 1st January, 1986, the 19th century idea of a Zuyder Zee province, consisting entirely of land reclaimed from the sea, became a reality. The capital of the new province is Lelystad, named after the creator of the plan for enclosing and draining the Zuyder Zee, Cornelis Lely.

Anyone passing through Lelystad will ask him or herself whether this town really forms the culmination of the Zuyder Zee works. It is clear that neither money nor trouble have been spared. The traffic can generally flow freely, and traffic safety is unique in The Netherlands. Moreover, all kinds of experiments have been tried to secure the maximum residential amenity. Nevertheless, Lelystad does not correspond to any image of the 20th century town, but rather to that of a string of commuter suburbs. Because of the emphasis on residential amenity, the building development has concentrated on the enhancement of housing standards and so has not been sufficiently exploited as an ingredient of civic design. Because of this and the consistent use of low rise building, a continuous string of neighbourhoods has been

created, connected by transport links. Each neighbourhood seems to be competing with its predecessor in its layout and building types, so that the endless variety gives rise to an endless monotony. All the whims of town planning and architectural fashion are to be found there, but the visitor will look in vain for an urban silhouette, a skyline, points of orientation (outside the shopping centres) and urban bustle.

A partial explanation of this lack of identity is to be found in the reaction to the early history of Lelystad. The town planner, Van Embden, who played an important role in this dark period through his repeated confrontation with Van Eesteren, the author of the first plan, gives this explanation in euphemistic terms: 'As a reaction to the early history and relying on our own experience, it was finally decided not to make a 'plan', but to aim at a summary growth scheme, limited to the strictly essential' (Van Embden, 1985: 65). The changes in planning approach analysed below (1950-1964) are not described in relation to the work and design ideas of Cornelis van Eesteren. This would require research into the Van Eesteren archives, which will be catalogued over the next few years. The analysis in this article has been taken from the standpoint of the institutional functioning of planning, for which the archives of the Dienst der Zuiderzeewerken (Zuyder Zee Project Departments ZZPD) and Rijksdienst voor de IJsselmeerpolders (Ysselmeer Polders Development Authority: YPDA), both at Lelystad, were consulted.

Eastern Flevoland

The new polders, which were originally approached exclusively from the hydraulic and agricultural standpoint, have gradually become a laboratory for experiments in the field of physical planning, for which the government departments concerned engaged researchers and town planners. Although 'ideal planning', the unity of design, research and organisation, with which experience was gained in developing the North East Polder (Andela & Bosma, 1985), seemed to have been achieved in the planning of the southern polders, including the new polder capital, the planning and development of a virgin territory with a new capital certainly did not proceed smoothly. Even in planning carried out entirely by the state, the realities of social change and value patterns proved to be more difficult to fathom and control than was originally thought. Moreover, there were profound differences of opinion between the various government departments involved in the planning. The creation of Lelystad is the living proof of this. Lelystad was one of the settlements in the central places plan for the southern polders. In contrast to the Wieringermeer (drained in 1930) and the North East Polder (drained in 1941), where hydraulic and agricultural considerations took precedence over housing aspects, in the planning of the southern polders it was precisely the housing aspects which formed the point of departure for the development plan. The Zuyder Zee Project Department, which had the task of enclosing, draining and developing the polders, appointed an Advisory Committee for the Development of the Southern Polders (1949) to advise it on these matters. Apart from researchers, officials of the Authority and representatives of the Ministry of Transport and Water Affairs, two leading town planners, Van Eesteren and Scheffer, served on the committee. They enjoyed some fame because of their contribution to the well-known Amsterdam General Extension Plan of 1933 (Hellinga, 1983, 1984; Hellinga & De Ruijter, 1985). With this expansion of its personnel, the foundation was laid for ideal planning, the unity of design, research and organisation.

For a long time, the basis for research was a report published in 1948,

in which a distinction was made, on the basis of figures relating to comparable agricultural areas elsewhere in The Netherlands, between A, B and C centres, with progressively larger populations and spheres of influence (Takes, 1948a). On the basis of this hierarchical model, which the authors tried to relate to the theories of the German geographer Christaller, one C centre (over 30,000 inhabitants), 4 B centres (each with 3,000 to 5,000 inhabitants) and 40 to 45 A centres (each with 1,000 to 1,500 inhabitants) were planned in the southern polders spaced at 6 kilometer intervals.

In combination with an 'ideal subdivision scheme' based on a diagram by the sociologist Hofstee, which started from residential considerations and the location of the settlements in the road network, this model provided a settlement plan that formed a basis, in the sketch of the Zuyder Zee Project Department's planner, Miss Van den Ban(1), for the first subdivision plan for Eastern Flevoland (1951). The latter was the first of the southern polders to be developed. The sketch served as the basis for a detailed plan in which the various aspects of drainage, railways, roads, parcel and farm size, settlement pattern and municipal subdivision were combined. The C centre, the later Lelystad, was planned on the central canal, the waterway separating the southern and south-western polders, which later became the Oostvaardersdiep. The subdivision plan of 1954 was presented in the following terms: 'A structure has been chosen which is characterised by a certain severity, deriving from the nature of the assignment. The severity is less pronounced, however, than in the structure of the previous polders. For various reasons, the dikes follow a more winding course, and greater liveliness and variation has been aimed at in designing the lines of the roads and waterways, although we have tried to avoid an illogical romanticism' (ZZPD, 1954).

The plan, which enjoyed the support of the planning consultants, Van Eesteren and Scheffer, defined the aspects already referred to, including the lines of the four primary roads serving the future province capital from the different points of the compass and, not to be forgotten, the emphatic treatment of the landscape, since the large scale of the polder demanded special measures to articulate the limitless, amorphous plain. This resulted in large areas of woodland being planned on soils which might have formed highly fertile farmland. In the previous polders woods had been restricted mainly to uneconomic left-over parcels and sandy soils.

Supported by farming organisations, the Directorate of the Wieringermeer (the later IJsselmeer Polders Development Authority, which had the task of bringing the land into cultivation and developing the area) worked out a counter-plan with the assistance of a town planner, Van Embden, and a landscape architect, Bijhouwer, among others (Andela & Bosma, 1983). As was to be expected, the agricultural interests were dominant in this plan and the area of woodland was greatly reduced and restricted to left-over parcels.

Apart from clouding the relationship between the two government departments and their town planning consultants, the counter-plan was unsuccessful. The Zuyder Zee Project Department was forced to make only a few minor changes, although the affair did result in the Minister of Transport and Water Affairs deciding to set up an advisory committee on which both government departments were represented and which was concerned with all future planning, including the plan for Lelystad.

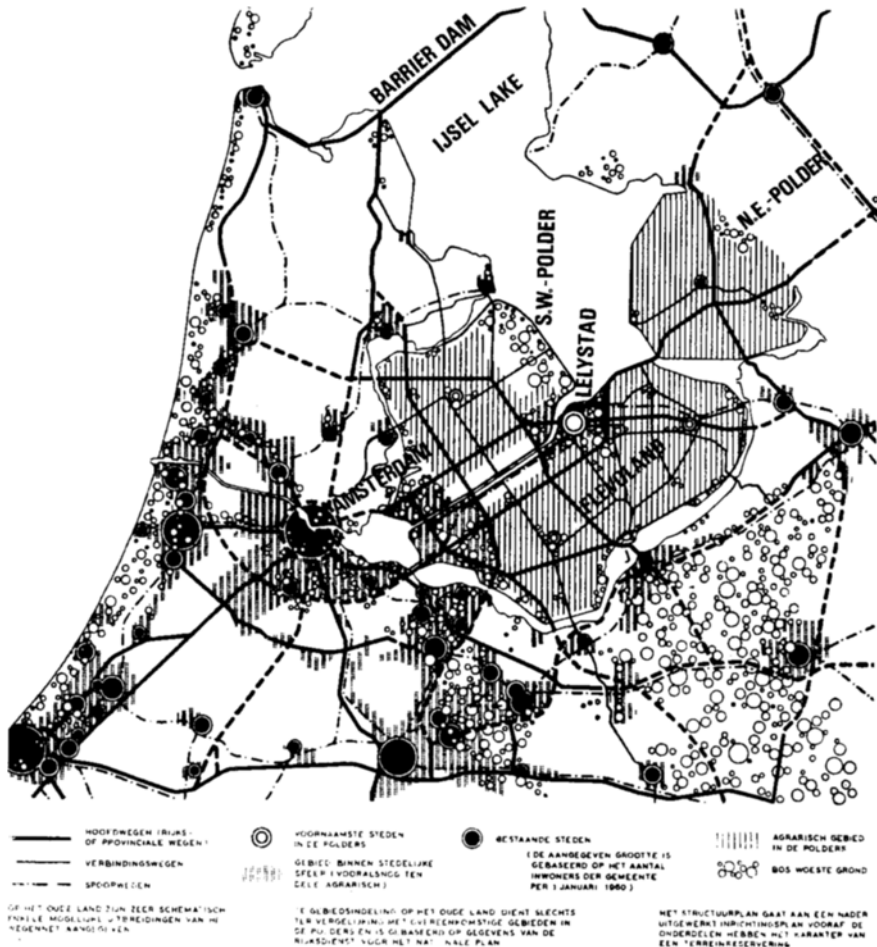
Towards a structure plan

It soon proved necessary to adapt and add to the plan. Because of economies of scale and the mechanisation of agriculture, the need for labour declined

and, with it, the expected population density. This meant that, in order to be able to maintain a certain level of service provision, the number of villages was reduced first from ten to six and, later, to only four. Ultimately, in the 1960s, only two villages were built -- Biddinghuizen and Swifterbant --, but they were twice as large as originally planned.

The uncertainty about the size of the future population was increased by the proposal to involve the polders in the policy to reduce population congestion in the Randstad Holland. In the report 'Het Westen des Lands' (The West of the Country), drawn up in 1956 with the participation of representatives of the departments involved in the Zuyder Zee works -- (Van den Ban and Hofstee) --, it was suggested that Lelystad could be expanded into a town of 100,000 inhabitants and each of the B centres in the southern polders into towns of 50,000 inhabitants. This altered conception meant that

FIGURE 1. A Structure Plan for the Southern Polders (1961). Illustration of the central geographical site of Lelystad, based on the presumption that the southern part of Flevoland and the south-western polder (Markerwaard) are impoldered in the future.



Eastern Flevoland and the southern polders would play a part not only in a national agricultural policy, but also in a national physical planning policy. This fact had far-reaching consequences both for the order in which the remaining polders were to be reclaimed and for the importance of Lelystad.

The number of uncertainties in the planning of the polders increased so rapidly that a virtue was made of necessity by settling for an 'open plan'. This new planning concept led to the publication in 1961 of 'A Structure Plan for the Southern IJsselmeer Polders'. The original priority given to the south-western Polder (Markerwaard) was transformed under increasing pressure from the surrounding provinces and from national physical planning circles into a priority for the impoldering of Southern Flevoland. This enabled the new towns (Lelystad and, later, Almere and Zeewolde) to accommodate the 'overspill' from the Randstad. For the IJsselmeer Polders the choice of radial urban growth along segregated corridors meant that the planned road pattern for Eastern Flevoland had to be modified. A calculation of the expected traffic densities produced a north-easterly flow and a flow along the southern rim. The plan also included a few major roads and secondary link roads. An Amsterdam-Lelystad rail link was also considered necessary.

The development of Eastern Flevoland was influenced not only by the proposal to accommodate overspill from the Randstad and the integration of the polders into the national communications network, but also by the realisation that, because of increasing prosperity, leisure and mobility, the need for space and recreation would make increasing claims on the land of the polder. A decisive factor for the planning of Lelystad was that the Structure Plan for the Southern Polders introduced a form of process planning which broke with the previously so highly prized unity of design, research and organisation. The 'ideal plan' was sacrificed for alternatives, scenarios, schemes etc. which had to guide the countless uncertainties along safe paths. The old planning concept was maintained for Lelystad itself!

Lelystad: prelude

There was already speculation in various circles about the siting of the new province capital in the early 1940s. Certainty about its location was needed at an early stage so that the alignments of roads and railways to and through the new town could be determined. Because of the favourable communications, a location on the central canal (Oostvaardersdiep) was recommended.

The first sketches, prepared by Van Eesteren, placed the polder capital on an embayment at the entrance to the central canal. 'And in these case there is an unsought opportunity to allow the dike to follow the contour in the relief of the Zuyder Zee bottom' (Stichting Natuur en Milieu). In this proposal Lelystad would have overlooked the IJsselmeer.

Thanks to his membership of the Advisory Committee for the Development of the Southern IJsselmeer Polders he was able to submit his proposal to the Zuyder Zee Project Authority at the beginning of 1950, as a result of which the location of the 'capital on the bay' was more or less maintained in all the following plans. An additional reason for doing so was that the authority's town planner, Van den Ban, had proposed an almost identical location for the capital at nearly the same time. It was decided by way of compromise to shift the town two kilometres farther to the north east. According to Van Eesteren, two principles had been combined in the one sketch: 'a centrally situated town and a living relationship with the IJsselmeer. This contact has been accentuated by the idea of placing the locks close to the town and situating the latter close to the shore of the IJsselmeer, which has been turned inland at this point. An element, the town

wood, is proposed between the town and the lake, the nature, dimensions and shape of which can effect the said relationship' (Advisory Commission, 1950).

Research into the location of the industrial zones and the structure of services for the province capital also began in about 1950. Attention was drawn to the need to integrate research and design, i.e. for the planning process to take its ideal course. The design had to be able to accommodate unexpected developments in different directions, in different ways and at different rates, while an orderly and harmonious whole had to be maintained at each stage of these developments (Zuyder Zee Project Department, 1951). For this purpose Van den Ban designed a scheme in 1955 to serve as a basis for the structure of the town. A structure plan and the working out of the primary organisation in one or more development plans were to follow at a later stage. Her scheme was based on a town of 50,000 to 100,000 inhabitants. The main traffic roads and a railway formed the skeleton of the future town. The town centre fronted onto the water, because it was partly planned at dike height on the broadened section of the central canal (Oostvaardersdiep), with wooded slopes on both sides, where schools etc. could be built. Low-lying residential areas with neighbourhood and subneighbourhood centres were proposed behind it on three sides. A higher residential area was planned near the Houtrib Locks, along which the proposed motorway to the Markerwaard would pass. South west of the residential area, a 500 to 600 metre screen of woodland formed a buffer to the industrial zone lying behind it. A town wood with sports fields was situated along the bay, with the harbour to the west of it (Van den Ban, 1955).

It was not so much because of the opportunities which it offered, but rather because of the lack of firm data that the scheme was quickly outdated and found incomplete. The planners demanded clarity from the central government about its decentralisation policy. Accordingly, a report about Lelystad was published in 1959 which, in conformity with the recommendations of the report on 'Het Westen des Lands' (The West of the Country), took as its starting point a town of 100,000 inhabitants to be developed according to a flexible plan. 'The design will have to allow for a harmonious expansion to 100,000 inhabitants, while, at the same time, the nucleus must already possess at the initial stage (up to 25,000 inhabitants) a certain measure of wholeness, finish and completeness' (Subcommittee, 1959). The building in of growth potential brought with it three kinds of additional costs: the planning and construction had to be based on a figure of 50,000 to 100,000 inhabitants, while the actual population in the early stages was far below this; the provision of facilities to attract industry; giving a certain scale to the town, which was to some extent justified, because Lelystad 'is the culmination of the IJsselmeer Polders, a work which has become a national symbol both here and abroad' (Subcommittee, 1959).

Programme

On 31st July, 1959, Cornelis van Eesteren was commissioned by the Minister of Transport and Water Affairs to produce an outline development plan for Lelystad within five years. The projected population for the new town was 50,000, with allowance for a growth to 100,000 inhabitants. He also had to produce a detailed development plan for about one third of the projected area of Lelystad in the outline plan, namely, for the town centre and part of the residential area.

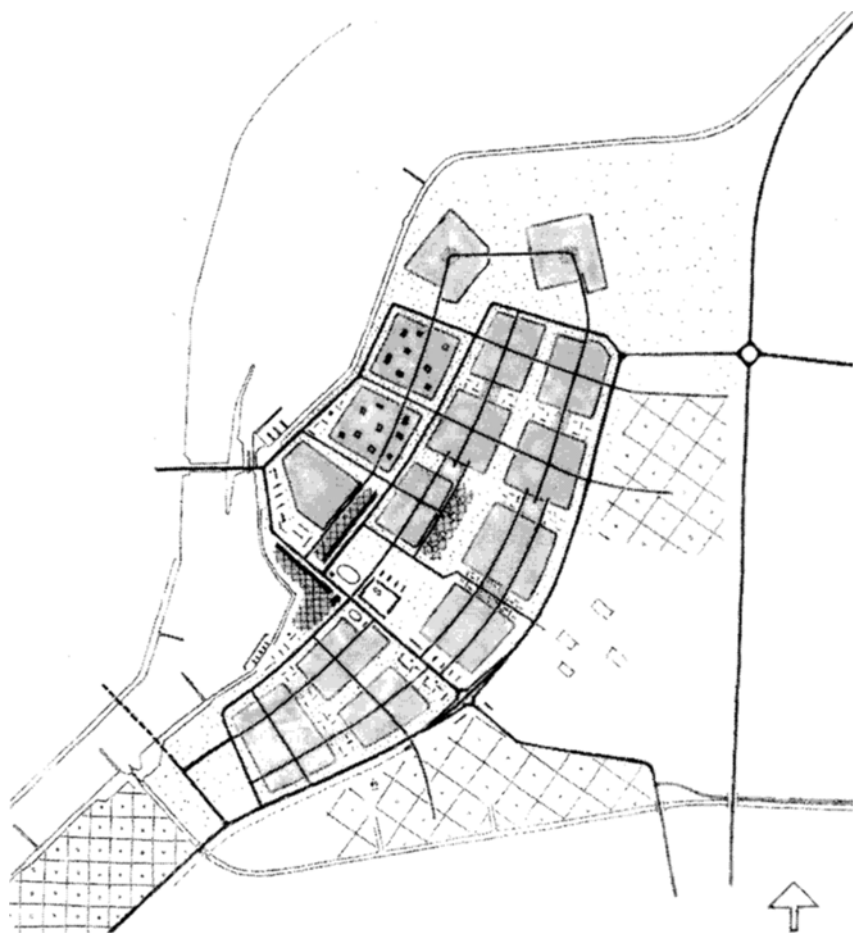
Van Eesteren could find few starting points for his design. The majority of them came from the Structure Plan for the Southern IJsselmeer Polders,

FIGURE 2. Cornelis Van Eesteren. Source: Historisch Topografische Atlas Gemeentelijke Archiefdienst Amsterdam.



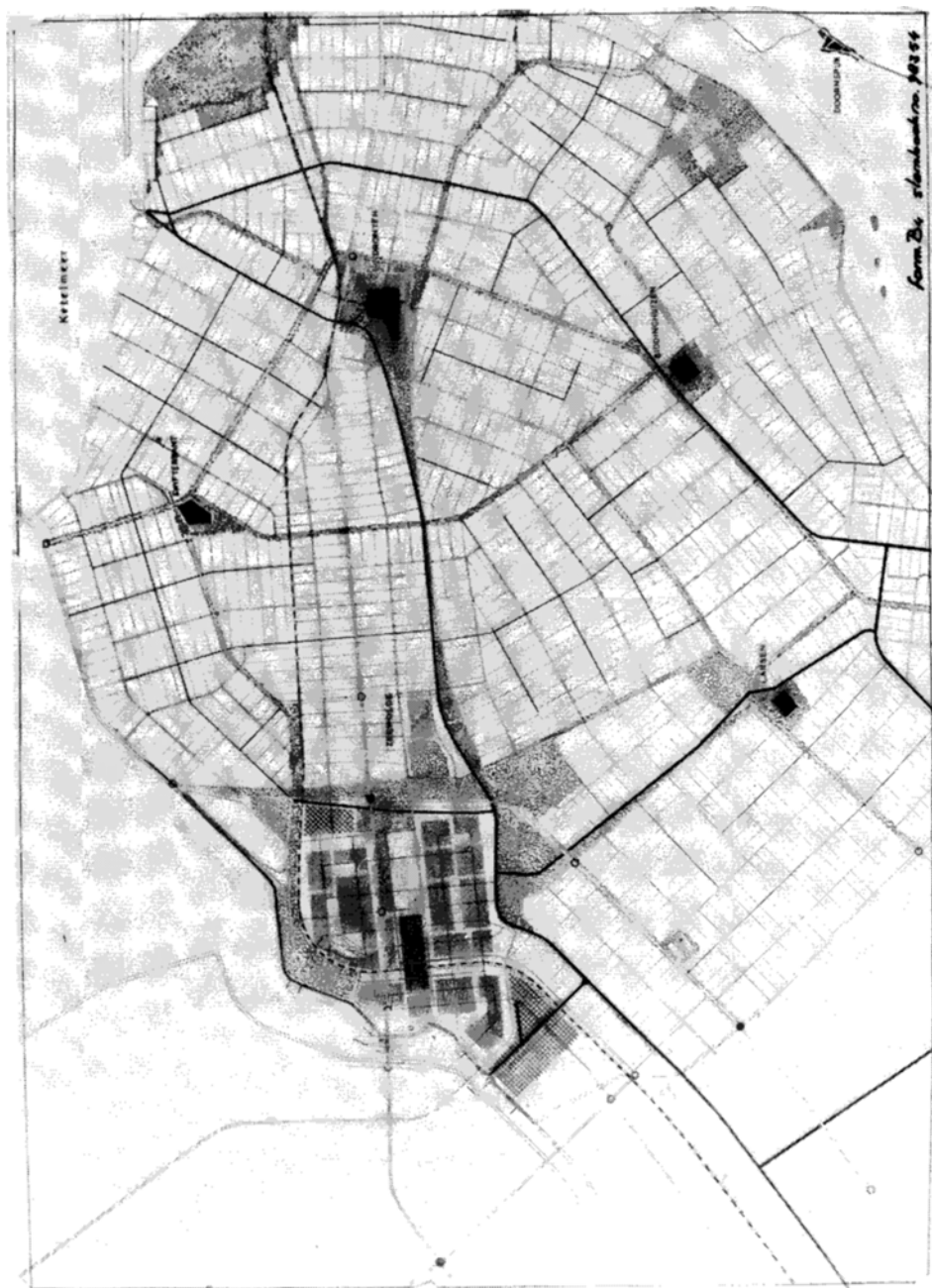
published in 1961. They included the water and the Houtrib Locks, the roads and bridges, the railway and the Enkhuizerzand (in the future Markerwaard) with the adjoining recreational area, which would act as a magnet on the town. In addition, he was able from 1961 to draw upon the report of the Economic and Technological Institute of South Holland about the future infrastructure of Lelystad, in which it was suggested that the residential areas should consist for 25% of high-rise building (in the vicinity of the centre) and 75% of low-rise building (towards the fringes). This means little, of course, until these percentages are linked to a particular population density. The report stated expressly that it followed from the nature of the commission that, in making the design, 'attention should be concentrated first on the plan for 100,000 inhabitants. Only when the overall structural framework of the town has been established can the section for 50,000 inhabitants be detached from it. In this way, the requirement can be met that the town

FIGURE 3. C. Van Eesteren: One of the first designs for Lelystad, June 30 1959. Concept of autonomous districts, connected by traffic roads and communal services. On the left, across the water, the future south-western polder. Source: YPDA-archives.



should be able to develop and double its population in a harmonious, planned manner after a population of 50,000 has been reached' (E.T.I.-Zuid-Holland, 1961: 5). The report was, in fact, a glorified survey in the traditional sense (needs and figures), but the essential ingredient, a politically argued case for the development, was lacking. 'The question of the non-planning conditions for the development has not been examined, nor has it been asked what official measures must be taken to bring about and stimulate the establishment and growth of the town. These two vital aspects lie outside the scope of the commission.' The report was not accepted by the Planning Commission for Lelystad until early 1962. Van Eesteren had then already been working on the plan for nearly three years in accordance with his own ideas.

FIGURE 4. YPDA and C. Van Eesteren: Integration of Lelystad in the Structure Plan, 1961. Source: YPDA-archive.



Design

Two stages can be distinguished in the series of designs which he produced between 1959 and 1964. The traffic system forms the foundation of both. During the first stage (August 1959 - May 1960) he designed a twin town on either side of the central canal, with the motorway over the Houtrib Locks, which was intended to connect with Enkhuizen across the future Markerwaard, forming the link between the two parts of the town. The industrial and port areas lay on the water in the eastern section (60,000 inhabitants) on the side towards Amsterdam. The bridging of the distances between the residential and work areas, which had caused problems in the early sketches, led Van Eesteren to the concept of the twin town. Since he considered the town to be too small to produce an impressive silhouette, he decided not to give Lelystad a front to the water.

For the town centre he used the analogy with a comfortable American shopping centre, at a road intersection and with a clearly identified entrance. The locks and unloading quays were situated on one side and the stadium, exhibition and festival sites on the other side of the centre. The centre would be interwoven with the specifically regional facilities which were to be located at a walking distance from the central bus and railway station. Although the great motorway to the Houtrib Locks cut through the town (it was about 7 metres above ground level), the correct placing and detailing of the viaducts would make the division scarcely noticeable, according to Van Eesteren. The segregation of motor traffic from other kinds of traffic enabled the pedestrian to maintain his independence. The motorways linking the neighbourhoods were planned to be at half-height (3.5 metres), so that local traffic could pass under them.

In the second stage of the design (from 1960), under pressure from the Planning Commission for Lelystad (see below), Van Eesteren abandoned the projected western section of the town in the Markerwaard and elaborated an element already present in the plan: the linear town concept along the principal motorway and the railway, which crossed each other at right angles. The structure of the centre was little changed. The western part comprised mainly the regional functions and the eastern part the urban facilities. The work area was located on the Amsterdam side of the Houtrib Locks. A 'welcoming' residential environment with 'value for the future' (including central heating), public transport and services and parks within walking distance had to attract future residents and businesses to move there.

Inadequate programme

Because the size of the town was linked to national policy decisions and trends, any population projection was a shot in the dark. Research to underpin a programme of requirements for the future Lelystad could do little more than put forward suppositions, wishes and uncertainties. The same doubts kept arising at the design stage and during the discussion of the plans by the various committees: the growth of competition with Dronten (the B centre under construction in Eastern Flevoland), the competition from towns in the future Southern Flevoland polder, the very remote location of Lelystad as long as Southern Flevoland and the Markerwaard were not drained, uncertainty about the establishment of industry and the absence of signs that the government really wanted to support the development of the polder capital with positive measures.

It may therefore be argued that a proper survey as a basis for a programme

was lacking throughout the design stage. Van Eesteren's design activities took place in a vacuum from the beginning. This was aggravated by the division existing between the members of the Planning Commission for Lelystad who were supervising the work. Besides officials from the Zuyder Zee Project Department and the Wieringermeer Directorate, the Commission consisted of the town planning consultants Scheffer, De Bruijn and Van Embden and the sociological consultant, Hofstee.

Within the Commission there were deep differences of opinion between the Wieringermeer Directorate and its consultants (Van Embden, De Bruijn and Hofstee), who argued on agricultural grounds for a concentric development of Lelystad in the manner of Emmeloord, and the Zuyder Zee Project Department and its consultant, Scheffer, who supported Van Eesteren's linear concept.

In order not to offend Van Eesteren and because they could not test the designs against a programme and were not yet able to devise such a programme, De Bruijn, Van Embden and Hofstee were reticent in their criticism at first. In a last attempt to reach a consensus, the consultants tried to formulate a concept of the modern town to serve as a model for the development of Lelystad. It is frankly astonishing to note that this attempt got no further than a few sheets in Hofstee's hand.

Criticism

Van Eesteren had deliberately rejected the idea of the concentric town because of the danger of maximum congestion in the town centre. The linear design was very radical, certainly in view of the agricultural tradition of the polders. His concept of the modern town was bound to arouse resistance and fundamental questions in the various assessment committees. Why was the through traffic not conducted round the town? Would not the conception of the plan have been quite different if the town did not grow beyond a population of 40,000? Did the railway have to be given such a central role if it could not be built before 1975? Had the relationship between the coherence of the town and the growth stages been clearly thought through and worked out? There was also the fact that Van Eesteren was unable to deny the fundamental points of criticism: the excessive consumption of land, the un-economic structure of the public transport network, the abandonment of the waterfront and the expensive and land-consuming structure of the elevated, grade-separated motorways. As early as the end of 1961, the Minister of Transport and Water Affairs had put the architect under pressure to work out the details of the plan for the first stage of Lelystad, so that preparations could begin in 1963 for the housing in the section of the town where the first residents were to be accommodated(2). The pressure was increased at the beginning of 1963, when he was, in fact, faced with an ultimatum to abandon the linear concept.

The Planning Commission, or at least the Wieringermeer Directorate and its consultants, now expressed their criticism openly. The architect immediately based his plan on 100,000 rather than 50,000 inhabitants. He had assumed a high rate of growth for Lelystad on theoretical grounds and had therefore been satisfied with interim stages which looked unfinished and open, resulting in 'unattractive and even scarcely 'habitable' residential areas'(3). The majority of the Commission found the centre of Lelystad too eccentric, too large even for a town of 100,000 inhabitants and, because it was planned on two levels (the centre reserved for pedestrians; the access roads and car parks at a lower level), on too large a scale and too expensive to carry out. The system of grade-separated roads and the very low resi-

dential density increased its 'diffuseness' and the costs of implementation. Lastly, Van Eesteren had constantly worked on the idea of urban growth from one or two residential neighbourhoods, while the majority of the Commission had considered only a growth from the centre (and the building activity originating from there) to be acceptable: 'Apart from creating a better quality of life, this would also encourage private investment'(4). Van Eesteren was asked to accommodate the wishes of the client (the Minister) and the Commission in his plan within a month. Large-scale work on the town centre had to begin during the first stage, namely on the first shops, which were to be exclusively in the centre, and the housing in its immediate vicinity. Such a requirement attacked the linear town concept, based on linear growth, at its foundations. If Van Eesteren did not satisfactorily modify his design, the Minister would be informed that 'despite three and a half years of consultation, such differences of opinion still exist about the theoretical basis of the plan for Lelystad that it cannot be expected that a plan will be completed within the set time ...'(5). This was a devastating criticism of the conception and detailing of the large town and illustrated at the same time the impasse that had been reached. A few large companies already wanted to establish themselves in Lelystad, while all that existed was a structure plan over which there was much disagreement and a start had not yet even been made on a detailed development plan. Van Eesteren would have to give way quickly or the IJsselmeer Polders Development Authority and the Planning Commission for Lelystad would themselves produce a provisional plan to enable a start to be made on the development of Lelystad.

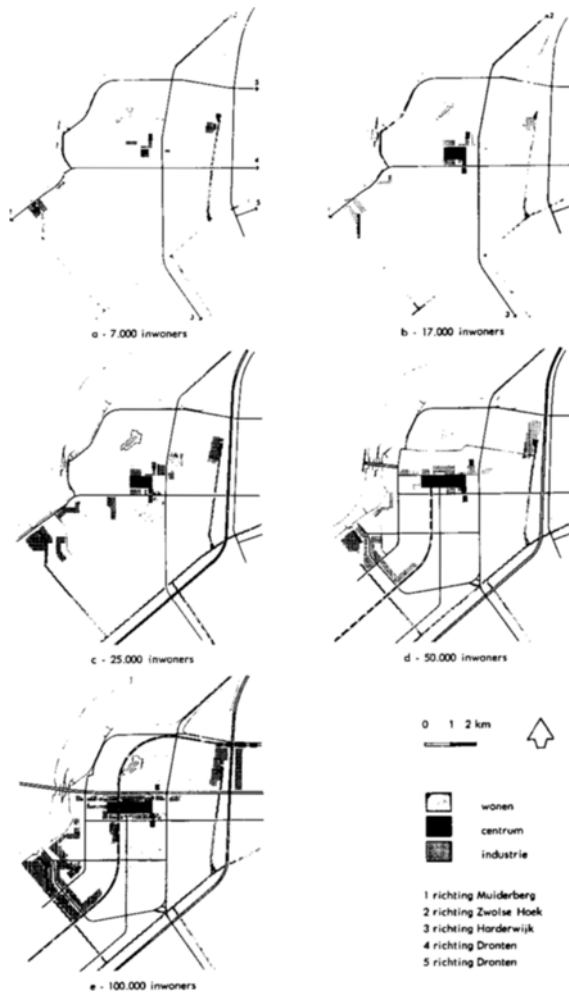
In August 1963, the Minister bowed to this criticism and set out the details of his commission to Van Eesteren. The plan must be based on a population of 50,000 with room for expansion to 100,000. At all stages the town had to give an impression of finish and completeness. Growth would have to take place from the centre, which was also to be the geographical centre of gravity, with housing immediately adjoining it. The building of a centre at two levels was unnecessary at this stage for a town of 50,000 inhabitants; the design had to leave open the possibility of making the principal traffic arteries crossing-free at a later stage. Besides these expected requirements, some very pragmatic demands crept in which can be regarded as the first steps towards an alternative plan that left Van Eesteren's plan in the air. Because, according to the Minister, there was no objection to changing the provisionally determined railway and regional motorway alignments if they restricted the freedom of design. The station, which had a crucial location in the Van Eesteren plan, did not have to be situated in, but only near, the town centre. It was proposed to begin development of the town on those sites where the soil conditions allowed them to be quickly and cheaply developed. The housing for the employees of the first companies to arrive would be built in the north. Lastly, each stage of the plan would be subjected to financial tests(6).

Pushed aside

Despite a number of compromise proposals and the Planning Commission's non-committed acceptance of Van Eesteren's draft structure plan for a town of 100,000 inhabitants, Van Eesteren's position became untenable. His concept became increasingly emasculated: 'the severely rectangular road network which has so far characterised your plan is still regarded as too diagrammatic, too figurative'(7).

In fulfilment of an undertaking by the Minister to the Second Chamber, the outline development plan had to be prepared and approved, and the

FIGURE 5. Some growth stages and the number of inhabitants, source: C. Van Eesteren, Stedebouwkundig plan voor Lelystad, 1966.



first phase of 1,000 dwellings worked out in detail. In February 1964 Van Eesteren was given a final time limit. The work of preparing the land for development would proceed with or without him. The IJsselmeer Polders Development Authority undertook to prepare alternative schemes 'within ten days' (sic!) for a town of 20,000 inhabitants and to draw up a detailed timetable (8).

Van Eesteren submitted his plan to the Minister on 14th July, 1964. Apart from his plan for 100,000 inhabitants, the Planning Commission had insurmountable objections to the plans for the interim stages (50,000 and 17,000 inhabitants), not to speak of the start. The Minister gave a very tactful

response to the plans and explanatory memorandum on 15th January, 1965, and promised to publish the plan. For the present, however, only a modest segment of the town would be built, because it was possible that the town planning philosophy underlying the plan would be superseded at an early date. The Minister had meanwhile commissioned the IJsselmeer Polders Development Authority to prepare a design for the first stage(9).

Not until one and a half years after its completion did the Minister allow the Van Eesteren plan to be published as a basis for a broad discussion (1966). The publication illustrated the final elimination of the plan of Van Eesteren. The rearguard action in various committees was wholly theoretical and not free of rhetoric, as shown by a typical passage about the plan: 'This offers the rare opportunity in our country to create a town of stature based from the very beginning on the demands of the motorised society of the future'(10). Since the IJsselmeer Polders Development Authority was already engaged in implementing an alternative plan for Lelystad, the publication of the Van Eesteren plan can be understood only as a consolation prize. Van Eesteren's Lelystad could be added to the illustrious row of paper plans for new towns.

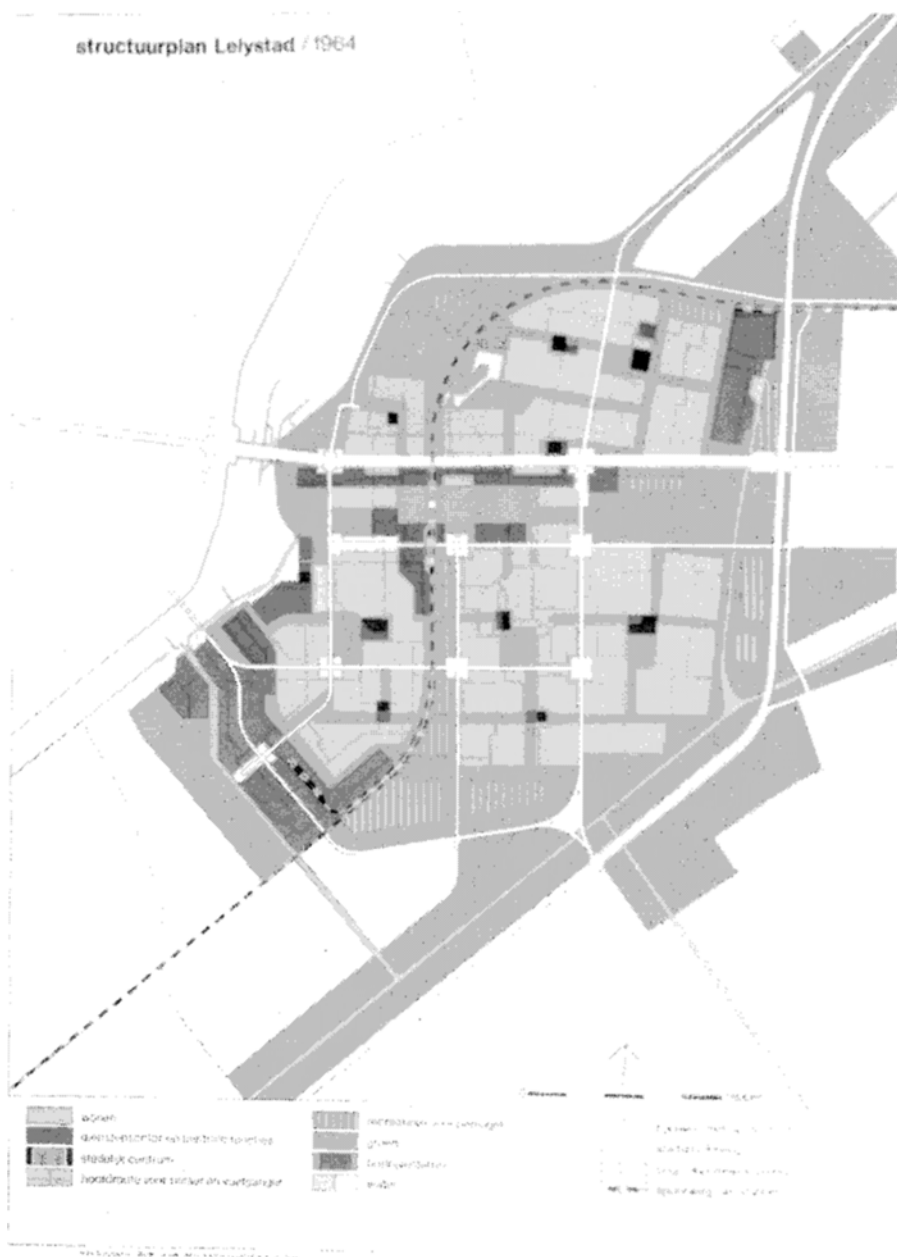
Structure scheme and structure plan

In June 1965 the IJsselmeer Polders Development Authority (YPDA) published an Explanatory Memorandum on the plan for the first stage of Lelystad, in which it stated: 'It has not yet been decided to what extent Professor Van Eesteren's plan will serve as a basis for the further development of Lelystad and, in any event, there is insufficient time to carry out the research necessary for the preparation of a detailed long-term development plan. The starting point for the preparation of the plan for the first stage of growth was therefore that it must in itself create a good living climate and exercise an attraction of its own, but that every opportunity will be left to develop the town plan in the direction to be later determined by the Minister on the basis of further research' (Advisory Committee, 1965).

In the report an alternative plan was developed that was estimated to be 30 million guilders cheaper to implement than Van Eesteren's plan (11). The Minister of Transport and Water Affairs formally supported this plan. He declared on 22nd November, 1965, that a rapid expansion of Lelystad into a town of 100,000 inhabitants was a necessary and, in fact, minimum objective. In the sitting of the Second Chamber of 8th February, 1966, he limited himself to a plan for the completion of a small town of 10,000 to 15,000 inhabitants by 1975, in other words, the YPDA plan. It came to light at the same time that the YPDA, in collaboration with the consultants, but without Van Eesteren and Scheffer, had been commissioned to design the first stage of Lelystad.

A number of elements of the Van Eesteren plan was retained in the later plans (see De Jonge, 1979; Nicolai, 1978; YPDA, 1969, 1979, 1980). To a certain extent, the Van Eesteren plan could be maintained with the alternative plan for the first growth stage (2,500 dwellings), because the direction of the parcels was the same, the site for the first industrial zone was the same and the first section of the town centre could be extended into Van Eesteren's east-west oriented segment of the centre. However, besides a first growth stage designed on different town planning principles, it was decided to invert Van Eesteren's traffic system, so that the main traffic roads were at ground level and the cycle tracks and footpaths passed over them at the upper level. This deprived the motorist for good of the view of

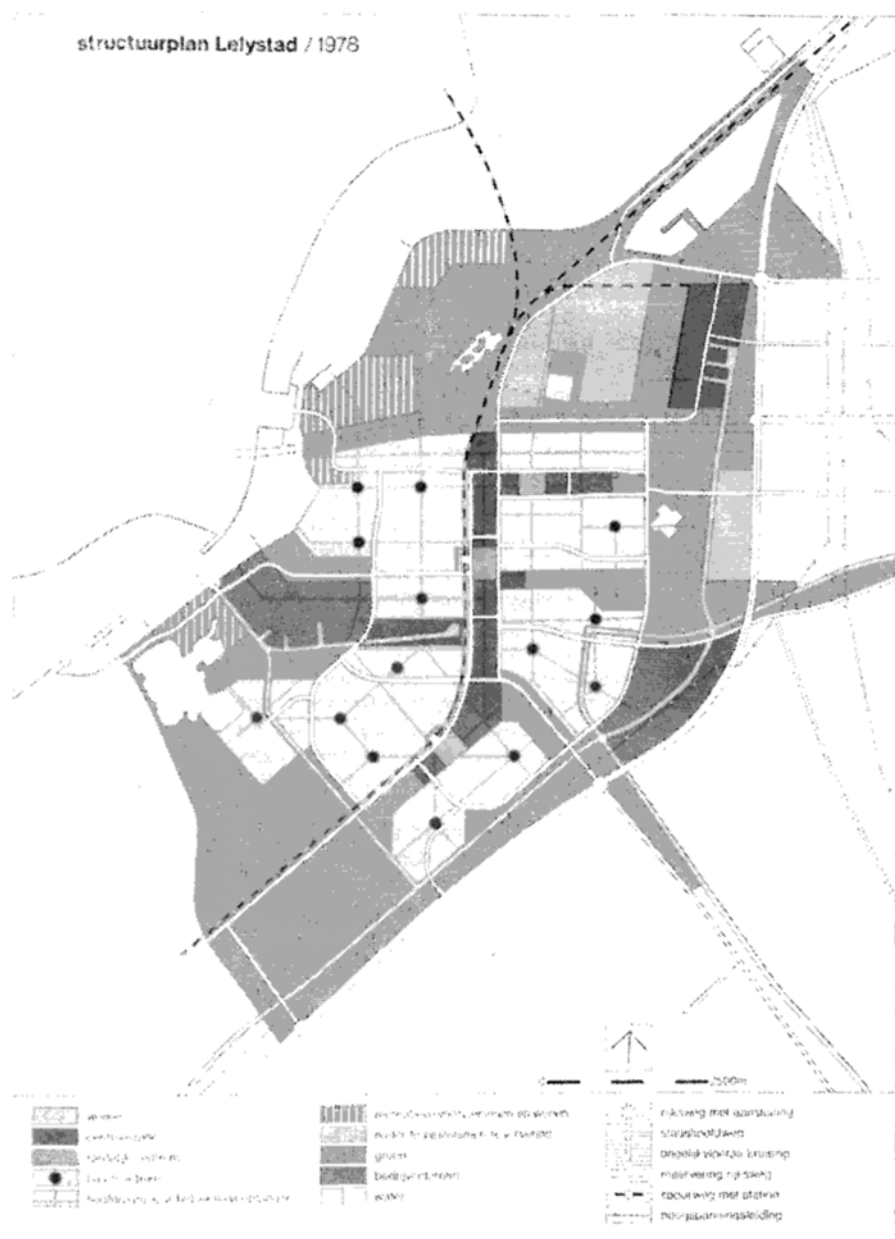
FIGURE 6. Structure Plan for Lelystad, 1964.
Source: YPDA-archives, Lelystad uit de kluiten.



Source: YPDA-archives, Lelystad uit de kluiten.



FIGURE 8. Structure Plan for Lelystad, 1978.
Source: YPDA-archives, Lelystad uit de kluiten.



the culmination of the IJsselmeer polders and removed the backbone from the Van Eesteren plan. Because Van Eesteren's structure plan, the outline plan for 50,000 inhabitants and the detailed plan for 17,000 inhabitants now had no legal status, the YPDA was revising the plans in collaboration with the consultants De Bruijn, Van Embden, Kuiper and Hofstee, which resulted in a **Structure Scheme for the Development of Lelystad** of 1969, approved by the Minister in 1973. Building on the already realised section, this very abstract sector scheme proposed a Lelystad of four neighbourhoods in cloverleaf form, each with its own neighbourhood centre. The linear town centre was projected along the railway, wedged between two motorways, and turned through 90 degrees relative to Van Eesteren's plan. The division of functions, which had already been a striking feature of Van Eesteren's plan, was carried to a maximum here. Remarkably enough, the scheme's authors did not develop the waterfront, despite their repeated criticism of Van Eesteren in this respect. It was now argued that the waterfront demanded formal buildings adapted to the unique situation, which only a very large town would be able to provide.

The **Structure Plan for Lelystad, 1975-2000**, approved by the Minister in 1979, was based on much more detailed and extensive research. The town centre and the neighbourhood centres from the 1969 plan were removed. The town centre is replaced by a very elongated central zone ('rootstock'), with branches to the west and east, on the site of Van Eesteren's original town centre. The neighbourhoods have been enlarged and future growth is projected in neighbourhoods to the south, linking with the 'rootstock'. The waterfront is given a recreational and residential function and a third industrial zone has been added. In addition, subneighbourhood centres and a cycle track system (present in Van Eesteren's plan, but not in the 1969 scheme) are proposed. A series of neighbourhood structure reports, sub-neighbourhood structure plans and development plans was prepared on the basis of this plan.

It is useful to quote again the characteristics of the planning approach used in the plan as recently recorded by Van Embden, one of the consultants: 'Under the impression of the previous history (of the planning of Lelystad) and on the basis of our own experience, it was finally decided not to prepare a 'plan', but to aim at a summary growth scheme, limited to the strictly essential. The greater part of the time was spent on eliminating everything that was superfluous from the scheme and testing the result for 'permanence' against as many departures as possible from the initial assumptions. (...). The scheme deliberately leaves future generations with freedom in interpretation as far as its implementation is concerned and wide use has been made of this, not always in the sense of and to the liking of the authors of the scheme, but that is the responsibility of the interpreters' (Van Embden, 1985: 65). Could anything be more non-committal?

The analysis of the early history of the polder capital illustrates the limits of the scope for government intervention, the limited ability of town planners and researchers to predict future trends and cast them in an appropriate form, and the painful lack of a three-dimensional vision of the future town that could form the link between the research into the desirable infrastructure for the projected town and its translation into an urban design by the town planner.

The decision to exchange ideal planning for an extreme form of ad hoc planning is ultimately illustrative of the inability of physical planning to tackle complex problems. In the absence of an image of the 20th century

town, town planning remains two-dimensional and the transition to the third dimension cannot be made. Where there is lack of vision 'the science of muddling through' is the commonest response. The signs of this are evident in Lelystad.

Footnotes

1. As Secretary of the Permanent Commission for Extension Plans in North Holland, she had already been deeply involved in the planning of the Wieringermeer and, later, from the P.P.D. (Provincial Planning Department) of North Holland, with the southern polders. In 1949 she was engaged by the ZZPD to work on the design of the southern polders.
2. Letter from Minister of Transport and Water Affairs to Van Eesteren, 16th November 1961. Reply from Van Eesteren, 22nd January, 1962, in which he agrees and announces that he will have the draft plan ready in the spring of 1962. YPDA Archive, register no. 19,469, file 263.
3. Letter from Otto, Director of YPDA, to Minister of Transport and Water Affairs, 26th July, 1963. YPDA Archive, register no. 19,469, file 263.
4. See note 3.
5. Letter from Otto to Van Eesteren, 17th June, 1962, regarding a meeting on 11th June, 1963. YPDA Archive, register no. 19,469, file 263.
6. Letter from Minister of Transport and Water Affairs to Van Eesteren, 2nd August, 1963. YPDA Archive, register no. 19,469, file 263.
7. Letter from Otto to Van Eesteren, 20th December, 1983, YPDA archive, register no. 19, 469, file 263.
8. Report of YPDA managements meetings, 10th and 17th February, 1964, YPDA Archive, register no. 19, 469, file 263.
9. Letter from Minister of Transport and Water Affairs to Van Eesteren, 19th January, 1965. YPDA Archive, register no. 19,469, file 263.
10. Appendix 1 to the memorandum to the Development Policy for Lelystad (draft), Appendix 2, C. Van Eesteren, Explanatory Memorandum to the Plan for Lelystad, 21st December 1965. Intended for the meeting of the Advisory Commissions for the Southern IJsselmeer Polders of 6th April 1965. YPDA Archive, register no. 17,547, file 184.
11. Minutes of the Executive of the Zuiderzee Council, 6th September, 1965, YPDA Archive, Involvement of the Zuiderzee Council with the planning and construction of Lelystad, register no. 21,126.

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APPENDIX

List of the principal persons, bodies and municipalities mentioned in this article

E. van den Ban: town planner, designer employed by the Zuyder Zee Project Department.

J.T.P. Bijhouwer: landscape architect, joint author of the alternative subdivision plan for the East Flevoland polder.

C. van Eesteren: town planner, member of the Advisory Commission for the Development of the Southern IJsselmeer Polders, from 1959 to 1965 author of the plans for Lelystad.

S.J. van Embden: town planner, consultant to the Wieringermeer Directorate (later IJsselmeer Polders Development Authority), joint author of the alternative subdivision plan for the East Flevoland polder, member of the Planning Commission for Lelystad, from 1965 joint author of the plans for Lelystad.

E.W. Hofstee: sociologist, consultant to the Wieringermeer Directorate (later IJsselmeer Polders Development Authority), member of the Advisory Commission for the Development of the IJsselmeer Polders and the Planning Commission for Lelystad.

L.S.P. Scheffer, member of the Advisory Commission for the Development of the IJsselmeer Polders and the Planning Commission for Lelystad.

A, B and C centres: settlements with 1,000 to 1,500; 3,000 to 5,000 and over 30,000 inhabitants.

Advisory Commission for the Development of the Southern Polders (1949-1956): committee to supervise the creation of the subdivision plans and the development of the southern polders.

Biddinghuizen: B centre in Eastern Flevoland.

Dronten: C centre in Eastern Flevoland.

Emmeloord: town in the centre of the North East Polder.

Houtrib Locks: locks in the Oostvaardersdiep at Lelystad. A major motorway was planned across these locks to link the southern with the south-west polder (Markerwaard).

Lelystad: C centre in Eastern Flevoland.

Planning Commission for Lelystad: committee to supervise the preparatory plans for Lelystad.

Oostvaardersdiep: the central canal separating the southern polders from the, as yet unreclaimed, south-west polder (Markerwaard).

Randstad: the Western part of The Netherlands, comprising generally the cities of Amsterdam, Utrecht, The Hague and Rotterdam and the areas within their spheres of influence.

Swifterbant: B centre in Eastern Flevoland.

Wieringermeer Directorate (1930-1961): government body with the task of bringing the land into cultivation and developing the drained polders (from 1962: IJsselmeer Polders Development Authority).

IJsselmeer Polders: the polders created after the Zuyder Zee were transformed into a lake, the IJsselmeer (Lake IJssel), by the construction of the Afsluitdijk (Barrier Dam) (1924-1930).

IJsselmeer Polders Development Authority: continuation from 1962 of the Wieringermeer Directorate.

Zuyder Zee Project Department: government body (established in 1919) with the task of carrying out the hydraulic and civil engineering works for the draining, reclaiming and development of the Zuyder Zee.

Zuyder Zee Works: drainage, reclamation and development of the Zuyder Zee by government bodies.