

By Leaves We Live

The Geddes report and impressions of a Garden City

By Leaves We Live

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Utopias are untouchable. Once you try to realize them, their allusive qualities dissolve and disappear. This publication features the complete Geddes Report, as it was submitted in 1925; but the Utopian Garden City of Tel Aviv continues to hover around the spaces of the buildings he created. In Tel Aviv, the urban-ecological utopia that views the city as a habitat of continuous coexistence for various organisms has become a concept that is itself intangible.

The Geddes Plan has become a synonym for a beneficial Garden City, but only a few actually read the report, which until now remained stored in the municipal archives of Tel Aviv. The secret of this plan lays, therefore, not in the actual study, but rather in the liminal spaces between the historical reality, the imagined heritage, and the current physical city. Geddes examined the relationships between the people and the environment, between the city and its natural elements, between landscape and planning, between the south and the north; all of which remain relevant to Tel Aviv-Yafo to this day.

Like any other alienated, challenging metropolis, the city of Tel Aviv has managed to flow between two layers of reality. The sublime and the pedestrian. The vision that Geddes created for the sublime was implemented by the asset-driven planning reality of the pedestrian when tens of thousands of immigrants were knocking on the gates of the White City even before it was constructed.

Tel Aviv is on the move, balancing conservation and development, emerging from the garden-formation blocks, designed by Geddes as an urban biotope that sustains life in different rhythms. This habitat has itself evolved into an organism with a life of its own. Apparently this is the unique DNA of Tel Aviv urbanism.

Shira Benyemini, Director
The White City Center - Tel-Aviv municipality with the collaboration of the German
Federal ministry of Interior, Building and Community

Microsoft is proud to be part of the *By Leaves We Live* project, conducted in collaboration with A N + and the White City Center, and presented in the “Artificial Natures Symposium” held at the Venice Biennale for Architecture 2018.

We see this collaboration as an opportunity to demonstrate the potential of holography as a key component for near-future urban planning processes and architectural design.

Mixed Reality and holography epitomize Microsoft’s mission to empower people through technology, by completely transforming the way we create, visualize and interact with ideas and with each other.

In architecture, the ability to experience mixed reality scenarios not only brings to life static architectural models, but more importantly, allows us to incorporate smart artificial intelligence algorithms into these models. Planning of traffic loads, greenery predictions and population density come to life with a vivid 3D representation.

Using the HoloLens device already revolutionizes the way architects and city planners are engaging with planning and building processes. We believe that integrating 3D and AR experiences into professional design procedures will prove itself groundbreaking and fundamentally change the future of architecture.

Assaf Rappaport
General Manager, Microsoft Israel R&D Center

Introduction

Avital Gourary, Natanel Elfassy and Rachel Gottesman

Tel Aviv was formed by a work of literature (The Geddes Report). Zionism served as the ideological vessel that enabled its utopian city plan, designed by Sir Patrick Geddes (1854-1932), a botanist, sociologist, educator, artist, and town planner. The concept of utopia played a key role in the absorption of modernism in Israel and the invention of a new architectural language – local and singular. Tel Aviv's urban planning was influenced by the Garden City Movement, seeking an architectural alternative that will offer a radical solution to the challenges faced by humanity in the beginning of the twentieth century. Geddes set out to challenge the conventional ways of living, working, thinking, and interacting in a given society through historical, botanical, and geographical strategies.

The current project, titled *By Leaves We Live*, redefines the conventional boundaries between disciplines, rhetorical expressions, conceptual imagery, and geomorphic representations and interventions. We move beyond the heritage of traditional urban planning to focus on the functions of our Garden City as an urban landscape, a physical environment, a changing complexity of artificial and natural, a social and economic system, a place we live in.

As we revisit Geddes in Tel Aviv-Yafo today, nature becomes inseparable from the urban environment. The existing Geddesian structure has been assimilated into our DNA, shaping spatial dynamics, urban climate, infrastructure, landscape and ecosystem, the disruption of residential systems, and the challenges of both physical and social mobility.

Following the 2011 Historic Urban Landscape Recommendation by UNESCO – a new approach to urban sustainability that shifts the focus from monuments to landscapes, cultures, and people – *By Leaves We Live* questions common perspectives on urban heritage, assigning equal emphasis to tangible and intangible assets and observing both natural and artificial environments, where different layers of the city take shape and develop through constant negotiations, interaction, and conflict.

The project reviews the garden utopia of Tel Aviv as a typology, ideology, and an archetype. It highlights the successful utopian plan – the

actual materialization of the Geddes plan – that serves as a kind of a spatial oasis; and the unfulfilled ideas – when utopia remains an illusion (*fata morgana*). The suggested discourse deals with alternative histories, disrupted present, and possible future of Tel Aviv through the intersection of language, drawings and maps. Using utopia as a cross-subject, we try to escape the known historical or thematic readings of the architecture of Tel Aviv and move forward toward a new definition and recognition of the physical and imagined city.

This publication features a first-of-its-kind copy of the original Geddes report for Tel Aviv, submitted to the municipal council under the British Mandate in Palestine in 1925. Until now the report has only been available in the municipal archive. We present the full report without any commentary or interpretation. In addition to the original report, we bring forth a study of the evolution of Tel Aviv from 1925 to 2003 (Jeremie Hoffmann, Director of the Conservation Department, Tel Aviv-Yafo municipality), and a short essay about the international context of the city garden of Tel Aviv (Yulia Leonov, Ideal Spaces Working Group).

The second part of the publication is an opportunity to revisit and reevaluate principle modernistic values in practice, in theory and through the imaginary realm, and consists of architectonic, photographic and literary impressions of Tel Aviv as a contemporary urban landscape. We look back on Tel Aviv's architecture in order to shed light on its potential relevance to the current architectural discourse and highlight the fundamental reciprocal relations between nature, landscape, and human civilization (architecture and text – A N +; photography – Aviad Bar Ness; short stories – Rachel Gottesman; Flora sampling – Bezalel Academy).

This publication is part of an exhibition project led by A N +, titled *By Leaves We Live*, and presented as part of the Artificial Natures Symposium held by Ideal Spaces Group at the 2018 Venice Biennale for Architecture. The project features a collaboration with Microsoft Israel, which uses mixed reality technology as a tool for experiencing and analyzing the Garden City of Tel Aviv.



The original cover of Geddes report (1925)

Town-Planning Report Jaffa and Tel-Aviv*

By Professor Patrick Geddes (1925)

* This is a complete, unedited edition of the Geddes report, as found in the Tel Aviv municipal archive. Any inaccuracies and discrepancies are part of the original document.

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TOWN-PLANNING REPORT JAFFA and TEL-AVIV

By Professor Patrick Geddes (1925)

INTRODUCTION

With all respect to the ethnic distinctiveness and the civic individuality of Tel=Aviv, as Township, its geographic, social and even fundamental economic situation is determined by its position as Northern Jaffa; hence Mr. Tolkovsky's admirable history - "The Gateway To Palestine"- is basal, and introductory that the old town, the modern Township, must increasingly work and grow together. the rise of additional townships, a yesterday. Sarona (and before long perhaps one or more others) make sit additionally clear that all concerned have already to recognize and increasingly work for, "Greater Jaffa". Thought the local industries and developments are not without distinctiveness, their fundamental conditions are essentially one, and the due prosperity of each is closely interwoven with the well-being of all. Conversely also; the more efficient and well developed can be Greater Jaffa, the better for all its component quarters and townships and for their related districts also.

CHAPTER I**(a) JAFFA PORT**

Much here has been done. The Old Port with its (1) Exterior lack of shipping shelter, and (still worse) (2) its totally insufficient Interior space and facilities for export and import requirements, manifestly claims attention from the first. Along with this arises the question of Railway communications, (now being reconsidered by Railway Authorities ON THE FULL Palestine scale)/ without questioning the recent Government decisions, to concentrate immediate, (and necessarily limited) resources upon the fuller development of the Port of Haifa, (which I have had a special opportunity of appreciating in course of my Town -Planning Report for it in 1920), it remains evident that not only history, but

geography, and with these the contemporary and advancing economic and social conditions of Palestine, all go to prove that the days of Jaffa Port are by no means ended. In fact the superlative over-congestion, with resulting waste and inefficiency- beyond parallel (so far as the writer's experience and enquiries go) in the whole wide world today, must not be interpreted in the mood of despair which they too readily produce. But on the contrary, as substantial evidence of indispensable services to their varied and rapidly growing communities, and to their extensive and increasingly productive, region.

When we look over the map of the Mediterranean, the atlas of its various countries, and these alike in antiquity and in the present, we see at what moderate distances along the coast their seaports have arisen and prospered. The age of steam, with its deepening of the draught of sea-going vessels, undoubtedly concentrates great commerce upon the comparatively few centres of great natural advantage, and these are usually developed, at great cost, and with high engineering skill. Yet here, despite the deplorable (and as yet inevitable) fact that for twenty or more days per annum, large ships cannot load or unload, and must thus go on to Haifa - (and this all the more as soon as its port improvement can be accomplished) - this does not affect the fact that for at least eleven twelfths of the year, their business does get accomplished, and this with an economy - despite all present drawbacks) which maintains the present maritime and commercial relations and has justified their survival so far. Hence, is these minor and Interior drawbacks can be substantially abated, and even to efficiency never realised before - as we hope in present planning to justify - a substantial new advance in prosperity is practicable, without waiting for a larger measure of "Exterior port - protection, at present decided against.

**(b) PORT AMELIORATION SCHEMES
JUSTIFICATION AND URGENCY OF THESE**

It is not necessary here to discuss the various past or present projects for the thorough amelioration of Jaffa Port, since these

are already familiar to all responsibly concerned. Enough here to outline a minor proposal, which has arisen independently, in course of personal survey in this and preceding years. In short a scheme to meet ordinary fair weather requirements, and with more moderate outlay and speedy returns, as also helpful towards the interests of Greater Jaffa, as an increasingly efficient whole.

Leaving out then all present hope of protecting large vessels in rough weather, and concentrating simply on the second problem, of making the best of what goes on during the working year, we have to consider what improvements are practicable, and best worth executing? The present enormous imports of building materials, (mainly for Tel-Aviv extension, but by no means entirely so) may reasonably be expected to continue for a moderate period of years, though not any very great number, especially in view of increasing supplies within Palestine itself. But most other imports must remain, and in aggregate increase with that growing prosperity so reasonably to be expected for Palestine in general and very largely for the towns and region here concerned. Exports are still more sure of increase. Thus, the now world-appreciated quality of Jaffa oranges ensures their very substantially increasing European demand and the like for grape-fruit and for grapes, figs, olives and more. For here - especially with the increasing knowledge, care and skill which are being brought to bear upon fruit-growing in Palestine - is a veritable "little California" for Europe. And seeing that when the present beginnings of all this survive and advance, despite all present inefficiencies, much more may their approaching development prosper, as more of European and American efficiency can be realised. And this at all points and stages, from the rural centres of production, to the transport, storage and embarkation, which essentially concern us here. Indeed as regards to transport, the present struggle for existence between camel caravans, railway system and motor-lorries has to settle itself, and for the most part, independently of our planning here, but doubtless with varied local co-adaptations in the future.

The present insufficiencies of Jaffa Port, now superlative in waste of time and toil, in damage to goods, and other losses all round, are obviously associated with the overpowering congestion of its limited and insufficient space, and of its accesses, on

sides of both laid and water, so limited for all purposes, all stages. How then increase this space? The comparatively recent developments on its south-western side, though useful, remain quite insufficient; so that further landing space and warehouse accommodation are indispensable and these better arranged. I therefore submit as fundamental. And as not incompatible with future possible developments, simple design which may be carried out (and with moderate expense and good return) to meet the large and growing requirements of the present situation.

(c) PROPOSED PORT AMELIORATION SCHEME

This scheme is simply derived from the present working situation.

Inconvenient and even dangerous though are the rocks, they are also the making of Jaffa; for, behind their shelter, is all the working Port there is, for landing and embarking alike. Instead therefore of as yet attempting either to improve the outmost rocks as breakwater, or to remove the inner ones to give lighter space (each a costly operation), let us simply improve the present Quay Area and to such extent as may be required, Hence on Plan is proposed a substantial Reclamation outwards upon the beach, with widened road, and with new warehouses beyond. Indeed at least a second row of warehouses seems already needed with reclamation carried further out; and thus compact and convenient, and with ample warehouse space increased beyond that given by previous designs: and further extensible as required.

The accompanying Plan will make the points of the scheme clear in principle; though of course any and every scheme requires soundings, before it can be drawn out in final details.

It will be seen that the present scheme can readily be adapted to such irregularities of sandy bottom and rocky foundation as surveys may disclose - (hence at one point perhaps narrowing its quay and at others widening, with greater warehouse are, accordingly). And as every reclamation scheme has its main cost in walling, not in filling (a comparatively inexpensive matter, thanks to the invention of the Suction Dredger), it can substantially remunerate its cost from the rentals of its

warehouse space: hence it is evident that as large breadth as may be is economically desirable. Moreover, expense of construction increases most with length of sea-walls. Though the value of the natural rocky protection must diminish as we recede from it north eastwards, this profitable breadth is best kept as wide as may be. - here 90 m. is indicated on plan - thus also keeping to this Reclamation Quay obviously presents no difficulty in ordinary weather, but from experience, rough weather and its changes, the harbour-master may choose the entrance at one day to be used as exit another. Order and regularity can also be ensured by keeping the daily procession of lighters along the quay as far as possible in one direction.

The exact limits of suitable Reclamation will of course be conditioned by the results of sounding and borings: but as these are not here required over the whole rock area, as with larger schemes, the expense of this preliminary Survey will be greatly reduced.

The main general position of Reclamation however is clear - on the area beyond the sea-wall of road N.E. of Custom House - thus extending the present road, so inconveniently narrow. Extension along this line is possible in both directions, i.e. in front of Custom House, and as far as may be, west and south beyond this bay towards the Railway Station. In this direction the breadth of Reclamation can go further, and with increasing warehouse-space also; hence with economy and profit as required.

NOTE. Here thanks have to returned to Mr. Antebi and as an Engineer of Technical skill and experience, for his friendly cooperation towards the preparation of the present sketch plan of proposed Reclamation. It will be observed however upon this that it does not go so far as does his own more developed Plan (already forwarded by Jaffa Town Planning Commission to Public

(Works Dept.). for without prejudice to this, I do not venture in my reduced sketch plan to go so far as to continue the sea wall of proposed Reclamation area so far as the rocks, but leave these for present open. In my view, this Reclamation should be made first, and with the present sea-ways left open as at present. Of course the new sea-wall can later be continued to the rocks, if found necessary or expedient.

i. RAILWAY IMPROVEMENTS

In the accompanying Plan there are indicated (1) the necessary Railway lines from Jaffa Station and along the whole length of the proposed Reclamation, And of course (2) also the Associated Road Accesses, and of easy incline of motor cartage and camel traffic; with Shore Road to Tel-Aviv also.

(The present Narrow Gauge Railway Line, from Jaffa Station to the Port, will thus be superseded; and its removal will be of substantial improvement to the present streets along its extensive course).

ii. WAREHOUSE ACCOMMODATION

This will be seen on plan to be extensive and convenient; so that at ordinary and reasonable rentals, the Reclamation should yield not only a substantial income, but a good Sinking Fund, which I venture to predict should be sufficient to pay off the capital outlays, and this even at preset rates, within an encouragingly moderate term of years. I must naturally however leave the calculation for this to the Chamber of Commerce, of other expert bodies, but I have no fear of the result.

iii. LOWERING OF RAILWAY INCLINE BETWEEN JAFFA AND TEL-AVIV STATIONS

Here the original design of the Railway many years ago was defective, owing to the too high location chosen for the present Tel Aviv Station. Towards rendering this section of the line efficiency, there is needed a substantial lowering, from the present 2% gradient to not more than 1%. A section down to scale along this distance, up to and through Tel Aviv Station has therefore been submitted: first to the Jaffa and Tel-Aviv Town Planning Committees and thereafter to the Railway Authorities.

There is no denying that this is an undertaking involving considerable expense: yet again thus expenditure may readily be calculated and compared with the very substantial working advantages and economies which will thus be obtained. For instead of a locomotive only hauling up six wagons, as at present, a full sized ordinary train, of 20 wagons or more, may then come up as readily.

With this lowering there will be also an advantage to Tel-Aviv, that of replacing its present Level Crossings at Herzl Street and Allenby Street by Bridge Crossings; (and with additional bridge for the intermediate Street when required).

iv. PRESENT TEL AVIV RAILWAY STATION

This station, lowered as far as possible, as above indicated, will remain of permanent service for local goods traffic; and may also continue of service as a Passenger Station for the (later proposed) Suburban Line.

The area to northward of Tel-Aviv Station, which had been provisionally marked out upon the Tel-Aviv Town-Plan for their possible acquirement towards extension in that direction, will not however be required, either for the New Main Line, or for future Suburban uses. For the former is being planned further to Eastward; and the Suburban Line may also more readily leave the course of Main Line further to N.E., near or beyond Sarona. In this way the Tel-Aviv Plan and its present road communications and buildings will remain uninjured.

PROPOSED NEW PASSANGER STATION (for Jaffa and Tel-Aviv Together)

Due consideration has been given to the various alternatives for the location of this new Station, and at a situation as convenient as possible for Jaffa and Tel-Aviv alike. The Draft Plan prepared during the past season by the Railway Authorities and shown to the writer, broadly solves the problem but a Sketch Plan has been submitted for their consideration, slightly modifying this, with local road advantages, and economy also, which is hoped may be found acceptable, or at least adjustable.

v. NEW MAIN GOODS STATION

For this the various possible situations have been carefully considered; and alike independently, and in company with the Railway Authorities, upon two of their visits. It is impossible not to concur in their rejection of the site first considered (that immediately to northward of the Salama Bridge over Wady Musrara) General agreement must also be recorded with their selection

of a site further northward, which is being planned by them accordingly.

(d) FURTHER INDUSTRIAL DEVELOPMENTS FOR JAFFA & TEL-AVIV OF COMMON INTEREST

vi. NEUTRAL ZONE - PROPOSED INDUSTRIAL QUARTER.

Pending the full working out of the above Railway Plans, it is of course impossible to plan for the balance of this area near new Goods Station, with any definiteness. But a tentative sketch has been added to the general Tel-Aviv plan, which will no doubt require some adjustments when the Railway plans are settled, but which it is also hoped the Railway authorities will amicably consider.

For here is an opportunity, and indeed a necessity, for clear discussion, and towards due collaboration between Railway Authorities and Jaffa and Tel-Aviv Town Planning committees' Mutual advantage may thus be assured alike for Road and Rail Communications generally, and for specific siding, for factories etc. of future industrial quarter.

In course of these adjustments, it will be of advantage to both parties to keep also clearly in view the needs of housing, both for industrial and railway workers, and these as far as possible of Garden Village character. Such cooperation will be found advantageous alike on economic and civic grounds.

(e) LOCATION FOR NEW SLAUGHTER HOUSES

The Inland location which has already been selected for the Jaffa Slaughter-House appears a satisfactory one. For Tel-Aviv a provisional location is suggested, a little way north of Montefiore Village, but its precise situation must await the completion of the Railway Plan.

(f) ASSOCIATED CATTLE MARKET

Provision for this has not been indicated upon the provisional plan; and for the same reason above. But this will be found advantageous for the consumption of all Townships alike and also for the ordinary live-stock interchanges which go on throughout every rural district, and which substantially increase with the advantages of agriculture and rural population. Both uses of this market will be found profitable: and a substantial (and extensible) area for its many cattle-pens will be required.

It is this for the Railway Planners to consider such Auction-Mart requirements with its siding etc.; and also for convenient access to both Slaughter Houses. Indeed here also the future needs of Sarona may well be enquired into and provide for.

(g) COMMON BOUNDARY TO EASTWARD-WADY MUSRARA

The present Municipal Boundary, for Jaffa Neutral Zone and Sarona alike, as shown on their recent small official plan of delimitation, comes up only to the near side, the western edge of Wady Musrara. Such a boundary line is common enough in recent municipal and administrative usage, as made however in their everyday mood, for which all times of trouble are over, and only the humdrum routine of business existence remains. Of course in all older and warlike times, from earliest to most recent, such a boundary was fixed upon the farther side, and this not only by posts or bridgeheads, but also by path or road as well. Yet however fully this peaceful hope be granted, and that the days of this reason of boundary may be past and done with (so that boundaries can be considered municipally only, alone as for instance everywhere in Britain as in the United States) the progress of town planning has brought all its exponents to clear understanding that the old Military method is the only right one for peace time also. For otherwise not simply does the town which neglects its adjacent stream leave it to neglect and pollution from outside neighbours, but invariably more or less spoil and pollute the stream and bank itself, as by rubbish dumps, drains

and worse. It is also throwing away what is now everywhere being seen as the finest of possible inland boundaries, one only second in possible beauty and health giving value to the seashore itself. Hence then, all awakening western communities, and especially American ones, which until recently have most of all missed this opportunity, and injured it also - are now coming to the thorough control of their adjacent stream and of both banks, and with public acquisition accordingly, as rapidly as may be. For not simply is this now seen to be a matter of great importance for public health, and in fact essential to its improvement and its security. As enlightenment advances, and the claims of adult exercise, and then of juvenile and public recreation become considered, these banks are seen to afford one the most excellent and least expensive forms of public park; as also of a type increasingly accessible, since fringing the inhabited area so widely; in this case for Greater Jaffa some ten Kilometers in straight line (and of course far more along its windings), for the most part pleasantly wooded. Instead then of any longer treating the stream as but public drain, and its bank as dump-heap, as has been too much the custom of the industrial age, (and as is still the danger of Greater Jaffa as it increases towards its boundary of today), the more intelligent citizen sees and uses the varied choice of pleasing sites which these banks offer, and whence before long increasing land values, even for all areas within reasonable access, instead of in observe ratio as before.

Hence then no advance of modern town-planning, and of city development accordingly, is making better progress than this. Even in towns of the past there has been some preserving of pleasing views and accesses, or even acquiring areas as public gardens, even small parks, while leaving the rest of the stream - course to deterioration. But all this has long been seen and felt as totally inadequate: and this even when Municipalities as in many cases, have acquired full sanitary control; even to stream purification, always costly and never adequate, until banks are de-industrialized, and returned to their proper and best possible uses, as for public garden or park, and garden village, by turns; and these connected by Park Way throughout. Hence park-ways are thus made, not only as fully possible along both sides of the

stream. They are also adjusted to the city's avenues, and thus to the interior Parks as well; so that not merely a bolt of green adorns the city, but with a network of interior lines and park and garden spaces as well.

The old shortsighted policy is thus everywhere becoming replaced by the new: and this ion the very grounds for merely despised as "impracticable" "sentimental" and even "esthetic", but now seen, (though often when all but too late) to have been the only ones at all sanitary, and even economically profitable to citizens and city. Here, however, where no appreciable harm has yet been done, and where control (and even acquisition) is relatively easy, it is surely to be hoped that these proposals may be favourably considered; so that Greater Jaffa, with its noble sea-shore situation, may thus soon come to have inland boundary worthy of this, and as little inferior to it as may be.

(h) PROPOSED SUBURBAN RAILWAY

As the natural and practical development of port and sea-shore cities is to stretch longwise along the sea line, and this more rapidly than inland, (though of course thus also) it should readily become manifest to every eye, as it widens its survey from personal interests to civic ones, that the main lines of road communications, and still more of suburban railway should also follow this main course. Thus broadly:- from (1) Jaffa port and present Station to Tel Aviv Station; thence (2) along edge of main line, and by Sarona, until divergence towards further suburban Stations, at Sommeil and Auja. Town growth and Suburban Railway extensions thus do not need to wait for each other; they may readily co-operate, and help to extend each other. Indeed it is not too much to foresee, that before many years a further extension will be needed, beyond Auja river and northward as required; so even to Herzlia, and by and by, even beyond.

The growing advantages of such a scheme, and for all points in succession along its extending line, will assuredly become increasingly manifest to all concerned. It is therefore hoped and requested that the possibilities of this Suburban Line be clearly

kept in view by the representatives of all the townships as a mutually profitable factor in the present replanning of the whole regional Railway System by its Authorities.

CHAPTER II. TEL-AVIV JETTY

Here must be considered the proposed Tel Aviv Jetty. Its first suggested situation, at or about the present Casino, is certainly unsuitable, on various town-planning grounds. For the present focus on Tel-Aviv, as watering place with its bathing stations, and as culmination of the main thoroughfares of Allenby Street also, would this become converted into a Port and Warehouse quarter, here then is waste and loss of the existing town centre, as developed during past years; for this existing quarter, of good homes and seaside pleasures, would be spoiled for their present values, yet is quite unsuitable for adaptation to business uses. Railway sidings would abolish the present bathing stations, and the railway would also extend northwards and southwards along the shore. On a recent plan also shown a great loop of railway line, cutting through the whole seaward half of the new Town, to the Silicate Factory, and thence back through the landward half to Tel Aviv Station- an operation not only costly but destructive beyond measure. Such planning cannot be too strongly deprecated, and this on every ground, since ruining the present town and especially ruining residentially and as a watering place, of great and attractive future possibilities, and these not only for all Palestine but even for Egypt; indeed for that vast and increasing tourist circulation which so largely replaces the pilgrim world of old. The problem of quite different railway treatment, free from this costly and disastrous course, and greatly more efficient and economical, will be considered later.

Return however to the main fact which renders better marine facilities for Tel Aviv so desirable, viz its present enormous imports of building materials, which are at present dumped in such wasteful and disastrous confusion at Jaffa. The above outlined Reclamation scheme admits of their orderly landing in Jaffa Bay, as above indicated, with speedy delivery of cement, wood, tiles,

metal work etc., by motor lorries - or camels- to every point throughout Tel Aviv where required. For it is easy to build the necessary length of shore road to connect with the existing road and street system of Tel Aviv. And similarly with Jaffa itself, since this will also have its turn of building extension, both eastwards and southwards.

(b) POSSIBLE QUAY RECLAMATION FOR TEL-AVIV

But even in Tel-Aviv, is still judged necessary, there is a better position than that at the Casino. It must not be forgotten that the town's sea-front runs southwards far about 600 meters from Casino, and averaging say 200 meters deep. On this length comparatively little has been built, while the width of open sands available for development is here considerable. If really necessary, a moderate Jetty of such length as need be, may conceivably be constructed here, yet saving the present town from positive disaster.

i. Main Port Development At Jaffa

It is not simply the present planner who cannot find means of transforming such a watering place as this into a seaport: it is in every respect unpractical and unprofitable to attempt to convert such a little Ostend or Brighton into a little Liverpool or Antwerp. Each cannot but spoil the other, and the problem of their reconciliation - other than in separate and distinct neighbourhoods - is beyond the wit of a man. Towns could here be named which have badly depreciated themselves, through attempting thus reconciliation of opposites.

While thus considering the above possible compromise, as near the main existing development of Tel-Aviv, as may be' without calamity to it, and with such hoped for advantages as may be, there remain many grounds in favour of concentrating southwards, in Jaffa Bay; and these will gain strength, in the future, in course of which all separate townships will increasingly unite to co-operate as "Greater Jaffa". Primarily of course, the general efficiencies and economics of a single Port System, if adequately

developed; and secondly that of a simpler and more unified railway communication.

So important is this matter, that I repeat the above in other words. On coming to Tel-Aviv, one of the first problems presented for consideration was that of its proposed Jetty. Indeed, this scheme could hardly but arise, from the large imports of building materials, for which improved and accelerated landing and delivery are so desirable. With this however arose (and not unnaturally from the local point of view) the idea of utilizing this Jetty for imports more generally, if not also for export and passenger purposes as well. Thus in fact. For many minds a virtual addition to the old Port of a small adjacent new one. The duplicating of Custom and Services thus required is however a grave drawback; moreover, there are yet more serious ones. In a few years more of the growth of Tel-Aviv at the present rate, the imports of building materials will not be wanted at this point, but further north, say at the Auja. Thus the necessarily massive and costly reclamation and construction for this Jetty, and for the associated Railway scheme, could no longer be producing a revenue sufficient to pay for them.

Finally, no efficient permanent Port can here be developed. The original and essential Tel-Aviv as Sea-side Town would have been sacrificed to a degree practically irrevocable - the more since the Railway scheme, as drafter on its plan, was the most dangerous, and even devastating. To the amenity, the future development normal existence of the town, of any railway scheme in my experience, or plan in my collection, the largest as yet in the world.

I am well aware that thus to report must be disappointing to many good citizens of Tel-Aviv; but I am thereby all the more compelled to justify my conviction that the scheme, in its first large form, is not economically realizable. It is in fact impossible to make Tel-Aviv a second Jaffa: a minor Ostend or Brighton simply cannot be made into a minor Antwerp or Southampton. This existing residential seaside town, and this too costly and artificial Jetty Port, could not spoil each other, with resulting deterioration- indeed practical failure to both.

ii. Minor Reclamation and Boat Shelter

Although thus compelled to condemn the large Jetty project, and especially at the central situation indicated on its plan, I see less objection to a quite modest reclamation, as shown on a plan of all the Township say 250 meters further south, with a small shelter for boats. This would be of great use for several years to come for lighters bringing in building materials, and, these not only cement, wood and iron from ships, but also sand from beyond Auja. With the economy of boat transit over Camel caravan accordingly. Thereafter, the reclamation would serve as a promenade, and the shelter would be of use for pleasure boats, thus developing the seaside town- and why not also for fishermen?

iii. A Simple Sunbtitue for the Preceding

But these limited uses cannot justify a large expenditure and estimates will probably show that even above small scheme may need further reduction. Hence I ask for present use, the trial of the simplest possible device. Why not take a couple of good large lighters, fix them together, and place a platform upon them, upon which boats could unload their cargoes of sand and cement and the like. Thus in fact we have a small Floating Stage, from which a light gangway reaches to the shore.

The whole is readily removable to any point desired; and can be hauled up on shore in case of storms.

Is not this the simple and economical solution so urgently required?

(c) AUJA PORT

Before leaving this matter of Port Facilities for Tel-Aviv, I may here recall the idea outlined in the brief section on Tel-Aviv of my report of Government of October 1920: viz, that the mouth if the Auja may be adapted to afford landing and warehouse facilities of substantial usefulness; and these alike to the greater Tel-Aviv which at its present rate of growth must in a very few years reach this important region and even spread beyond it, and to the districts and colonies beyond. Despite the manifest

rocks and sands, their clearance for the moderate distance which is all that is required does not appear difficult or costly; and for such protection of entrance as will be required, the natural rock foundations are obvious. The amount of silt brought down by the river will substantially be abated through the large measure of irrigation (and perhaps with some canalization?) which may be confidently anticipated in the near future. And since- despite all present drawbacks, the Auja loop behind its exit into the sea does actually afford refuge for small sea-going fisher-vessels- the inference is reasonable that with moderate expenditure these conditions could be substantially improved. The serviced of a single small dredger would amply suffice for Jaffa and Auja, if not perhaps more.

Everyone knows that the past century's economic development has been essentially characterized by the development of large seaports versus small ones, and also of railways versus roads and canals. But there are many grounds - geographical, technical, economic and more - for thinking that these great movements have gone too far. For small ports are again finding their possibilities of improvements and even inland canals again will have their day. Note too the present advances in road construction, already up to silicate roads, (perhaps even before long with artificial rubber strips as well). This advance of facilities for road traffic must give automobile and motor lorries - themselves still but in their first generation of inventiveness an increasing local predominance over railway systems, which are necessarily incapable of anything like the same decentralized serviceableness throughout all parts of each developing region. The regional development now so conspicuously in progress over Palestine, must increasingly thus be served.

There will still of course remain substantial use and scope for our railway systems, but their long undisputed predominance, and too exclusive extension, can no longer be accepted as heretofore. It is now time for Railway Authorities, and still ore fir the public authorities over those, to work for the better development of each region, in terms of its whole communication system. In this the railway will of course remain central; but now with more economic adjustment to this re-opening era of minor

communications, by roads (and even by canals wherever possible).

Yet Railway extensions too will be necessary; thus obviously a suburban branch will be needed to the Auja mouth, and in time northwards beyond it.

CHAPTER III - HOUSING IN TEL AVIV

i. Area of House Plots

As cities go, the standard in Tel-Aviv seems among the best; and at present price of land I cannot ask for larger house plots than 560 Sq.m. given me by the Town Planning Committee as construction of two small houses with common gable ("semi-detached") upon a single plot, when need be. Of course it remains open to all who desire and can afford it separately or together, to take up two or more lots and thus enlarge their gardens.

ii. Barracks and Tents

The temporary wooden "Barracks", and even Tents, are also, I take it, inevitable under the present circumstances, of an influx of population far beyond the housing ready for them. I may ask however one or two questions.

Thus (1) Might it not be of advantage to organize, (and by private enterprise; since not easily municipal) some additional provision of Barracks and (or) Tents in a more associated way? And thus under better sanitary control, and with economy to all concerned; yet at rents yielding the necessary interest and sinking fund, as well as due maintenance and repairs when need be. It is easy to plan this and economical so to construct.

iii. Cheaper Houses

(2) May it not be well to have a small committee, with building experience as far as possible, to look more fully and carefully than appears Cheaper yet to have been done, into the many endeavors towards Cheaper Housing, which have been of late years all suffering from housing shortage so many countries, all suffering from shortage more or less? I need not enter into any full account of these; as from these recent renewals of the old-

world earthen houses so long familiar in many European countries, to the latest devices, e.g. of Steal Houses, so actively pushed by Lord Weir and being erected at and near Glasgow etc., or again to the Nottingham houses devised by Councilor Crane of that Corporation. These two house types of houses are each sent out in parts; and their inventors claim they are easily erected in 9 to 11 days respectively. The Garden Cities

Association, and other bodies also, make such experiments; and diffuse their literature, which is certainly interesting and stimulating,

iv. Need of Roads

Returning to home production and existing methods in Tel-Aviv, I must here ask - is it not obvious that the absence of roads through the sand from which so many buildings indeed most are suffering must add a substantial percentage to their cost of construction? Is the estimate if this correct, as "not less than 10%, and probably as much as 15%" which I have heard from an experienced critic? And if so, would it not be profitable to provide earthen roads, pending the later permanent construction in cement or macadem, other permanent forms? (After rain these earthen roads should of course be rolled.) Here Mr. Armstrong's experience is well worth considering.

v. Group Buildings

Again, is it not urgent to organize, as far as may be, the building of houses in more comprehensive ways? And as far as possible in area by area (each provided as above with some road mitigation of its sea of sand?) The tenants of Shab Am and Abdul Her are preparing to do this; so may not this be organized more largely?

vi. Vacant Plots

I am aware that the Municipality at present lacks powers to press for building upon the many plots lying vacant for years past: but I strongly recommend its endeavoring to acquire such powers, (And these retrospective if possible) as by taxation of plots left vacant for more than (say two?) years after acquisition. This

taxation would no doubt lead to speedier building by many owners, and to sale of their plots by others to such as are able and willing to face new municipal regulations.

vii. Building Efficiency

Now another class of question. I am acquainted with much of American "Efficiency" literature; and also with the dis-approval with which the American Workman has is largely come to regard its methods, and this for reasons for which we can by no-means entirely blame him. But here In Tel-Aviv, with its active co-operative Associations, have we not an ideal field for experiments in this direction? Perhaps they are already being made? But if not, I beg for trial - e.g. in Bricklaying, of which the potential rise of efficiency, with our over-taxing the worker, has so especially been investigated. For, whatever may be said of American labour conditions, as far from perfect, the fact remains that the difficult problem of cheapening the product to the purchaser, yet also raising the wages of the workman, and the return to the capitalist as well (when not absorbed, as sometimes here, into a co-operative organization) is being more frequently, and part in the old world. For the Ford Automobile is no isolated example of this, albeit the best known, alike for low cost, yet high wages, and profitable to all concerned. And is not this a field in which Jewish economic thought and actively should not lag but lead? And here in Tel-Aviv of all places?

viii. Quality Of Housing

By this I do not mean quality of workmanship, but type of dwelling. Herewith I call attention to the accompanying two pairs of photographs: each of the Shapiro Row of detached cottages and little gardens, on east side of Sommeil Road, near the bottom of its descent from Allenby Street, and the other of the large Tenement block, of many dwellings together, immediately behind it, and easily reached by the adjacent side Street.

For here we have vivid presentment of two different types and modes of family habitations, as clearly constructed as need be. Does not the Tenement come out very unfavorably on this comparison? Yet it is only fair to say it is extraordinarily in

advance of the average housing conditions of the working classes in the great industrial cities of Britain, and too many other countries as well. For here are the only two storeys, and with open verandah; whereas the corresponding blocks in older cities run up to four, five and even six storeys. Moreover, this block has more open space in front than larger cities give.

Still, when all is said, does not this contrast stand out clear, as in principle and in tendency, that between the Garden Village of this twentieth century, and the Human Warehouse Tenement of the Nineteenth? And though this example of such a block is a little paradise compared with the British "Slum", is it not after all too much of a continuation of the same principle? I trust therefore that this is the last, as well as the first of such tenement buildings in Tel-Aviv; while on the other hand I cannot too strongly recommend the principle of the Shapiro group small though its space be. For here too the small internal road is purely a Home-Way, quietly apart from the Main-Way which leads to it, and past it. In short then we have here well illustrated, upon the small scale the essential contrast of two main different styles and types of planning. And whoever wishes clearly to understand (and fairly to judge) the present new town plan, cannot do better than first thoughtfully inspect these contrasted types. HE will thus be more ready to consider (1) how far we can next improve upon the advantage of the better, and (2) how fully avoid the dangers indicated by the worse.

I am reminded of course of various intermediate forms, Yet even the large blocks of middle-class flats, now rising so largely in Tel-Aviv, despite their obvious advance upon much such accommodations in my own country, or other industrial ones - are still threatening of return to the old warehousing type, and thus of abandonment of the Garden Village character for Tel-Aviv.

I am again reminded, however, that even in English Garden Village there are often continuous terraces of houses, from four to six, eight or more, in an unbroken row. True, but I do not think any more of them for that I but less. It is at best a compromise with the past. A reduction from the true Garden Village. In this the union of two houses with a common gable (semi-detached), as per existing regulations, is as much as I am

prepared to plan, or to advise, save in specialized shopping and office areas, noted later.

Moreover, the English Village or country town, with its long centuries of peace, (for even the Civil War of nearly three centuries ago did not seriously affect it), has acquired a high-standard of gardening and even of its beauty; one little reached in more disturbed conditions; as even in Scotland, let alone Ireland, and even less in most continental countries. Nor is the old New England villages and towns which at first continued the tradition of their mother country, have been too largely submerged under the pressure of the industrial age, and the influx of immigration accordingly. Hence to speak quite plainly, I cannot and do not trust any other modern community than the South English (to which I do not personally belong), to make much good of the continuous terrace of original and desirable Tel-Aviv lines, i.e. with houses as separate as may be. It is well that the mass of public opinion and desire is so distinctly in this direction.

ix. Proportion Of Plot Built On:- Height Of Building Etc. Said to a visitor to Tel-Aviv from one of the colonies "What bad building regulations in Tel-Aviv!" Said I "What regulations?" "Why, one is only allowed to cover one third of his plot". "How much would you wish?" "two thirds of course"! "Well, if you wish to introduce the mortality-rates of Bombay, and particularly those of child-mortality on the first year, (maximum in the world - 66/6%) that's the way to set about it! They build higher too, to four, five, six storeys. "Well, why not?" Because there is a stratum of lowered health - of women and beyond the second and especially between third and fourth". "How so, when less dust?"

"Here is the medical answer.---"Imagine yourself a working man's wife with her full marketing basket on the arm, her baby on the other, and another baby coming within, so now, tell me how many stairs you would like to climb up?- You never thought of that before". Again, though the child mortality of the next and even great _____ Colombo - is still too high, it is under a third of Bombay's, and the lowest of all great cities of the tropical East. And why? Because on the mail still much of one and two story houses, and largely with gardens - because its founders were the

Dutch, who brought their gardening interests skill and taste with them to Ceylon and have diffused them throughout the population."

Such Illustrations might be multiplied; but the principle is clear. There is no sense in crediting (say rather debiting) high death-rates to Divine will, or to Fate; for it is, above all, a matter of housing and town planning, and of municipal order, and it is over these of course, the inexorable nemesis of shortcoming or the reward, according to our works and ways, are ever becoming more clear. Vital statistics are coming to be among the most clear and intelligible matters of social science; and their amount, varying so largely as they do between city and city, is in the measure of our citizenship, our care not merely or mainly for our own lives (though popular ignorance still imagines this), but for each others, and throughout our whole human hive. That is where the Mortal Order and Justice come in; and why we must recognize and respect them, though in larger way than commonly heretofore.

x. Height Of Buildings

It is the popular belief, that because land is dear we must build high"; but the real fact is that as we build high we make land dear. No doubt a vicious circle arises, already only too manifest in Tel-Aviv: but none the less, the way to cheapen land, and to keep it so, is to limit population per dunom and hectare, and as far as may be. Thus in the home city I know best, I remember great "philanthropic" corporations piling and walling up 600 persons per acre, though happily they are now kept down to 50 or thereby, with abated exactions (and death-rates) accordingly. But still somewhat too many.

I have been shown designs for an American "Skyscraper" for Tel-Aviv; and Jerusalem is present adorned with pictorial promise of a kindred horror. Why so strong a word? For all the above reasons and one more: Namely this :- that a single such building, in either city could not fail to inoculate speculative hopes, in minds already too prone to these; and thus to a madness which would practically strive to lead Zionism to New York as its Ideal City, its New Jerusalem! A new captivity and worse than any old ones; for amid these the spirit found its freedom but in this cannot but lose it! One cannot serve the Ideal and Mammon: the

choice remains as clear as of old. It is even more dramatic; for never before in history were the prophets of the latter so numerous, or so persuasive as in this period which has followed in the industrial age- that of "the pecuniary culture" in its turn happily beginning to lose its illusory values, as Town Planning for instance begins seriously to be considered and understood as heralding and preparing a truer culture, Civic and Regional: on of course far more truly economical and profitable also.

In summary then, this planning must essentially be towards continuing the Garden Village Tel-Aviv began with: and bettering this as far as may be.

xi. Note Towards Abatement Of Land Speculation in Tel-Aviv
While I have course essentially concentrated during my whole stay in Tel-Aviv upon the planning of its enlarged municipal area, I feel compelled strongly to advise that a yet larger view of this area be now taken, and even acted on. for at present with land prices, so far exaggerated (and still rising) beyond ordinary values over the world, (even in considerable European Cities, as for Montpellier to Edinburgh) the ordinary householder investing in an adequate garden home must sooner or later anticipate a slump towards ordinary values elsewhere. This fall must surely come; and with wide spread depreciation of capital values accordingly. And the longer delayed, the worst must it be.

I therefore cannot but urge that the Municipal Authority consider the fullest possible acquirements of Government lands of low value along the sea margin, as already so far, up to Auja mouth. But next also beyond this: for there the areas of uncultivated sands, broad as well as long, may surely readily be acquired and allotted at the merest fraction of prices now prevailing within municipal boundaries.

If these northern sands can be acquired, a single good road (conveniently for easy contours, the Central venue of New City plan) may be bridged across the Auja, and thus become the arterial connection n of north and south. The development of the Auja port would thus be accelerated, with its economic advantages and possibilities: and even the Suburban Railway scheme would soon be encouraged to proceed.

The present extensions of the older Tel-Aviv, and those upon the present New Plan, would thus tend to proceed more slowly though still with too many streets running to the sea, south of Allenby Street, where it opens to the Casino Place; though better planning would have given more frontages and more profitable results.

Further North of Allenby Street, notice that this needed economy of East-West streets is beginning. Note too on block IX, and on the second thorough fare and circle for turning vehicles at its apex.

This economical planning is increasingly being adopted by planners everywhere; but still too little in Tel-Aviv So let me here call attention to the good example of this treatment on East of Sommeil road in a difficult space (XLVIII) by Mr. Shapiro and his Architect and clearly illustrated in the accompanying photo. Here we have a charming little group of homes, with the quietness and freedom from dust and noise which their retirement gives. Notice too that in this block, almost alone in Tel-Aviv, there are no walls or high fences separation the houses from the road, so that all gardens combine into a single group mutual co-operation in economy, with increased beauty and pleasure.

Now pass eastwards from this Shapiro Group along the street immediately to southwards, and see that large Tenement Block with its undesirable crowding of families. Of course, this is still far superior to most European or American slum tenements, since only of two storeys. Still this block illustrates the beginning of the Garden Slum, while its neighbor is an excellent beginning of the Garden Village. The 19th Century has housed the working classes too much on this tenement principal, but it is for us now to follow the adjacent type, that of the Garden Village, and as much more fully as may be, Even the present new plans will some day be criticized as insufficient for the demands of the rising generation; but I go as far as I at present dare.

Return to bloc IX. Proceeding north wards to the axis street of Nordia, we see, north and south of this the beginnings of an improving layout, with larger north-south blocks. (XI)

Yet, in passing, let me call attention to the striking contrast between two rival treatments of this area by different

architects, though neither scheme has been adopted, Without entering into detail, I cannot but call attention to the striking effectiveness of Mr. Kaufman's adjustment of a School Building with approach to the sea and perspective from its shore. It is now too late; but the principle should not be lost sight of and applied wherever possible.

(b) CASINO PLACE -END OF ALLENBY STREET

As already reported, here is the best situation in Tel-Aviv for a good wide Public place, as at once affording an affective conclusion for Allenby street as we come towards the sea; and conversely, the main entrance to the city from the shore.

Towards widening this as much as possible, by setting back its frontages, a compensatory range of shops would here find suitable location and a unitary design, by a well chosen architect for this whole area, and in both sides, would be of great advantage.

(c) GENERAL PLANNING NEEDED FOR NEW TEL-AVIV MAIN WAYS TO HOME-WAYS MAIN WAYS AND HOME-WAYS

While of course, in a general way, the present Town Plan agrees with those of other planners for progressive communities it goes further than heretofore in certain respects. All planners agree to no longer covering their area with streets of the old haphazard character, as so much during the 19th century and later. They increasingly distinguish great main thoroughfares, from the minor ones sufficient for residential areas. But here it will be seen at a glance that these principles are now carried out more definitely; for upon this plan, there stand out the wide arterial roads, in the essential northward direction of the city's growth, and with the fewer secondary east-west thorough fare required. Thus are clearly formed large city blocks. Their whole large interior area is laid out with minor streets for dwelling purposes. In short,

this plan shows Main-Ways and Home-Ways.

On plans of the old type, as heretofore in Tel-Aviv, "there is no saying along what streets traffic may develop". But now, on this principle, it becomes possible clearly to provide for the growing requirements of business, without their interfering, as at present, with the peaceful amenities of homes. This is in fact but a fuller application of the well-known principle of "Zoning", here our new Main (north-south) Roads range from less to more than the breadth of Allenby Street, while the minor east-west roads are rarely more than 12 meters.

Home-Ways, however, not only may be, but should be, as few as short, and as narrow as possible. This statement of course, at first sounds alarming; and no wonder, for whoever has seen such less inhabited, the dreary interiors of London blocks, or the similar and more closed in courts of New York, not to speak of all other old cities, may well shudder at the idea of being asked to inhabit any such surrounding. But here are totally different ideas at work. The model and ideal before us is that of the Garden Village. But this is no longer merely suburban; but as coming into town; and even into the very heart of the city block. For, given Main-Ways carrying all-through traffic, we can now plan the interior of each Home-Block with as few roads as possible, this gaining ground from the long customary, but wasteful road-length and road space; and saving a substantial area, besides cost of constructions and upkeep.

There are two possible uses for this land saved: Viz, on the one had to enlarge the house-plots; and on the other, to provide space for garden, play-ground, tennis court or the like; indeed all these are as far as possible.

It is often hastily objected that if we narrow these Home Streets we shall diminish air. But air is omnipresent; the only difference between street and garden is that the street is dusty. The essential matter is that the houses on each side be sufficiently kept back. I thus recommend 7 rather than 8 meters as sufficient breadth for such home-streets, as enough for serving their always moderate number of homes, (say from 30 or so to 50 to more). Individual and Municipal economy coincide in keeping these Home-Ways, as to paving etc. as reasonably narrow as possible: and

this economy will be found worth calculating per block and for the whole City, before widening, as no doubt some may desire. Yet where unpaved margins are left for flowering trees, these also may have their way, without extra expense.

Though hitherto the regulation minimum set-back of houses forth 2 meters, it is expedient that the house be henceforth kept at least 3 meters back from the street, thus giving a total distance between the houses of $3 + 7 + 3 = 13$ m. (or let us keep back 4 M. Thus still better, $4 + 7 + 4 = 15$ m). it is manifest in all cities, and particularly in Tel-Aviv that people pay much more attention to their front gardens than to the back; hence the deeper the frontage the better. This admits of planting one good fruit tree before the house and a vine upon its front as well, which climbs to the roof if allowed and trained.

Pass now to the back garden; still too often neglected. But why not encourage gardening here also? A garden like Dr. Soskine's shows what wealth, and variety of vegetables can be calculated, even to excess of home consumption; But even allowing for the deficient skills, as yet more usual, it is not too much to say that the thousands of donums of gardens in the whole plan of Tel-Aviv might readily meet half the necessary vegetable consumption of its inhabitants; from tomatoes to artichokes, and even asparagus. Fruit also should not be so much forgotten. It is a sad sight to see an orange-grove neglected before buildings, and destroyed afterwards but a few gardens happily show intelligent preservation of as many orange trees as possible, with first-rate results accordingly. See too, we may have herbaceous fruits, from strawberries to bananas.

So important indeed is this question of gardening (for how else can Tel-Aviv be truly a Garden City) that I must treat it with greater fullness in a later chapter.

Steel, one point more. Since of planning and in good time.

(d) SUGGESTED ROSE AND VIND LANES

All inhabitants of the interior houses of the Home Blocks, (I.e. those along its home-ways) have easy and direct access to their

common garden, Tennis-Court or Play-Ground. But those of the outer row of houses, upon one of the surrounding main ways, have first to come round by this, to the nearest Home-Way approach. The two or three houses whose boundaries touch this interior pleasure ground may indeed enter this from their back-gardens, but not the others. Yet why should not these agree to a narrow Lane along the bottom of their row, a half would be with sufficient breadth for this Lane, and its fence, on each side, could soon be so bright with roses, so rich with grapes, as to make this space a gain, not a loss to all concerned. Hence indeed the interior proprietors, since fruit, might fairly contribute a portion of this needed space at least $\frac{1}{2}$ metre, leaving 1 metre to be contributed by the outer ones.

Fears of misuse, nuisance, or at least loss of privacy; have sometimes arisen when this plan has been suggested; but not from any who have seen lanes like those, in their order and beauty, in actual Garden Villages.

I therefore hope, and not without confidence, that this suggestion be given a trial; of course as a fair proportion on of the neighbours on any side of some Home-Block are willing to make the most and best of it.

(e) GENERAL PLANNING NORTHWARDS AND OUT ACCORDINGLY

The Lay-Out of Tel-Aviv in past years has been limited like that of towns before the present Town-Planning movement, and at the time. But it is of the very essence of this modern technique to plan ahead with the largest possible foresight, and thus more effectively to guide future acquisitions; with clearer perception than heretofore of their respective desirability and value to the city.

Such planning is thus no longer local and piecemeal. It is not simply topographic, but now geographic; not merely topological but geo-technic. That is, it keeps in view the City Survey as its basis and starting-point; and it works out the relation of each building estate, thus a future city quarter, to the City, seen as a growing & developing whole.

The geographic conditions which have had to be kept in view are especially two. First (see town-plan) the general circulation of Tel-Aviv is (necessarily) far more on north-south line than from west to east: and furthermore this main direction of movement must obviously keep on increasing with its northward growth, up to the Auja river.

During the growth of Tel-Aviv, (as is well shown the small municipal plan colored to record progress from 1909 onwards, 1914-21-24-25), it is manifest that north and south streets have been increasingly provided, and especially of late; but not yet sufficiently, while transverse east-west thoroughfares are still for the most part unnecessarily close together and numerous.

For here comes in our second geographic consideration that (as already pointed out) the southward or northward facing of houses which such east-west streets establish, is undesirable. Such houses are exposed to too much mid-day heat, and too little open to sea-breeze. These disadvantages are corrected by the east-west exposure of houses given by north-south streets-better as regards sun and sea breeze alike; while also less dusty.

In short then the main planning here introduced, (see general new plan) may be considered as but a further and fuller development of the improving planning beginning in recent extensions; but now carried out in a thorough-going way, so as to secure as much economy efficiency, and amenity as may be.

(f) MAIN THOROUGHFARES

(g) ALLENBY STREET AND ITS CONTINUATION NORTHWARDS

As the city elongates northward, and still more when maritime commercial and industrial developments begin to arise upon Auja, the one wide main thoroughfare yet provided - Allenby Street - that continuing northwards, would obviously be insufficient. For the growing residential town there would here be an excess of heavy traffic. Yet some will be inevitable, and much increase of carriage and motor traffic also, hence I am compelled to recommend widening, beginning from Allenby Street Square, at which the directly

northward sweep be sing, though quarters still so largely unbuilt, and which should have the new frontages set back a metre or two.

(h) CONSTRUCTION OF MAIN BOUEVARDS

On present (old) plan, this is indicated as sweep northwards from S. of the Pourtales Orangery and rising to the edge of the Arab Cemetery: an unsuitable combination, (arising probably by mere oversight), and thus seriously reducing its residential and recreative values at that end.

Hence the present new plan shows a modification of its course, so as to cross Allenby Road and roach the sea view, before the steep rise to the Cemetery Hill, and a little to the north of the first street beyond the Tannery. There is another reason for this. The original piece of Boulevard has been an increasing success as popular resort and promenade; and its present lengthy extension, of two kilometers northward without change of character or dimensions, is surely sufficiently great. This westerly addition, as shown on present city plan, is again more than a kilometer and the problem thus arises of varying its treatment - (see Chapter VII Park System). Indeed the whole city extension beyond Arab Cemetery Hill and onwards to the Auja, must thus mainly have different treatment, as regards its recreative open spaces: and the new plan indicates these. Still, a range of kindred Boulevard is also provided as we approach the Auja quarter. For its variety and beauty, the treatment recommended in the Boulevard section of the Gardening Chapter of this Report may be continued with advantage.

(i) CENTRAL AVENU

A city of Tel-Aviv's approaching dimensions requires more than one main Thororoughfare, and this as central as possible. It will be seen that that shown on plan meets this requirement; and it is on lower contour than Allenby Street, with economy for all communications accordingly. It is moreover needed to open up the whole central area as yet quite undeveloped, and to link this, as

directly as may be, with the present Tel-Aviv, with its future extension to the Auja.

Its course is plain on plan, from Auja back to the situation where it enters Sommeil Road, at the space indicated on the existing Town plan for the future Theatre or Opera House: a very central point (and one which peculiarly requires such easy and extensive communications in all directions.)

Sommeil Road, from this point will thus require the utmost widening still practicable, up to Allenby Street. This the small house and shop facing this junction must certainly be improve away, and with setting back of garden fronts etc.

(j) OTHER MAIN WAYS

These are so obvious on the new plan as to need no description, save that it will be noticed that the large number of East-West Roads, so conspicuous upon the old plan, is now substantially reduced.

It will also be noticed, that while several East and West Main Ways run right through the whole town, other are as definitely adjusted not to do so. This return to an old mode of planning, is at first sight apt to be disapproved, as unfamiliar, by those accustomed only to the modern direct intersection of roads. But that this old method is returning, and justified alike for safety of wheeled traffic and of passengers, and as not needing the same police regulation with its delay, is so clearly explained (And with convincing diagrams) in Raymond Unwin's well-known and easily accessible "Town Planning" that I need not here go further into this exposition.

(k) PROPOSED LOCATION OF MAIN SHOPPING AREAS

In Tel-Aviv as is now stand, it is a pity to see the costly transformation, at so many points of valuable dwellings and villas to shopping purposes. But further north, for the new Town yet unbuilt, I indicate two convenient (as by and by fairly central) areas, as shopping Quarters, and these near to grow together.

The more central of these is on Central Avenue, and at its most important point of access from all sides: hence its widening out into a Hexagon Place. This is guarded from congestions and collisions of traffic by its central space, with ring of trees or shrubbery within its surrounding pavement. Within this space is suggested a Band-Stand, with surrounding seats than which there can be no better open-air attraction for Sabbath Evenings and others fated the traffic of the day.

This Hexagon place is also the point where I recommend giving permission to erect four story buildings, These, and for the whole six sides, should be designed, with due measure of architectural unity, by a single well chosen architect, For only in this way can this Central City feature be made really and permanently effective, Shops should in time occupy the whole range of ground floors, and if necessary the mezzanine too-though business, law, and other offices may naturally be accommodated. Elevators should be provided for these; and for flats of dwellings above.

The other, and more simple Shopping area (with adjacent Market, Garage and Kiosk to east of it) is upon the existing Sommeil Road, East (and slightly S.E.) of the above Hexagon Place. It shows planned around the central meeting of streets, a further circle of narrow streets (or covered arcades) suitable for smaller shops. In fact, this is at once something of the old Oriental Bazaar, and of its western adaptation, nowadays also so attractive and so profitable.

As the town and its business grows, more shops and offices may arise along the east and west streets connecting these two areas.

Shops may also be convenient along the north-south line continuing Allenby Street, say along its (mainly unbuilt) course, south of east-west Boulevard. But beyond this it is desirable to protect the home areas from transformation; and especially in the more seaward area.

Indeed upon this large residential area, north of the east west Boulevard, and until we come to the Auja Quarter it may well be that fairly central market areas may suffice; and for those the plan affords choice of locations. I do not however yet venture to define these at the present stage of emptiness of the whole area; since it still remains to be seen upon which buildings-estates

development may first arise. (Unless too far from central, this opportunity of profitable utilization of part of the area may be an incentive to speedy beginning).

The shortest east-west Main-Way, south of the Auja Port Area (which may naturally develop before the intermediate large housing blocks on plan further southward) seems the most suitable for shopping purposes, as most conveniently accessible from all sides. Minor shops, restaurants etc. further northward, and towards the future Suburban Railway Station, may also be required. A market is also indicated in this quarter.

(1) AREA OF SILICATE FACTORY

It may already have been noticed that this important Factory has disappeared from the present plan and its area is indicated as covered by streets. Of course this expresses no disesteem for this productive centre, so invaluable to Tel-Aviv. But as in time its neighborhood will be build up, and its available sand also exhausted, it may well remove to some fresh site, presumably with sand, and convenient access to a railway, thus leaving its site free for ordinary building uses, and of fresh value accordingly.

As the main factory building is of substantial permanence, some future industrial use may be found for it. Hence an alternative plan, showing this building retained, has been and left in care of Mr. Frankle.

(m) PLANNING FOR SCHOOLS

As the world and its cities go, the public respect and demand for education, and the corresponding provision of schools is high throughout Scotland, and not merely its main centres; yet I can have no doubt that such demand rises to its very highest in the Jewish World, and must continue to rise. It is therefore peculiarly for its first all-Jewish city, here to lead the way, as to supply.

(n) NEW GYMNASIUM

The present Gymnasium is full and too overflowing; so a second is already necessary, and a third will be, at the present rate of city growth, Hence a site for this second (corresponding in area to that of the present one) is shown on the high ground east of Sommeil Road, and almost on the line continuing the axis of Nordia. This situation is easily accessible from existing houses and convenient for school visits to the Group of Culture Institutes to be described later. It is also within easy walk of the coming town to northward, say up to the East West Boulevard, and the quarter which must develop on each side of Central Park.

In later years, and further northward, toward the coming Auja quarter, population will grow to require a third Gymnasium. For this the most attractive of all school locations is suggested overlooking the sea, and immediately north of Sports Grounds (see plan).

(o) NEW PRIMARY SCHOOLS AND KINDERGARDENS

The first of these schools likely to be required is shown a little way south of the above mentioned second Gymnasium and near the small East-West Boulevard nearer the present town, A Kindergarten is also indicated in the same neighborhood.

Returning to the populous axial street of Nordia, a Kindergarten is indicated immediately West of Its Circle - here colored red as good site for Cinema, but also be kept open as a playground.

South of main East-West Boulevard and thus immediately S.W. of Central Park, a site for a large Primary school with its garden and playgrounds is indicated, to occupy good part of the interior of a Home Block.

It will thus be seen that this form of school-location would be readily adaptable to the interiors of quite a number of the main Home Blocks to northward of the main East-West Boulevard; As their order of development remains to be seen, I do not attempt to specify any one, but the Education Authority should not omit its own choice, in good time.

But as the Auja Port area (with fairly numerous population before long) may be expected to develop before, intermediate blocks, a fairly Central Home-Block-Interior is shown as devoted to Primary School Buildings, for girls and boys respectively, while their preparatory Kindergarten is located immediately eastwards.

Such interior situations for schools are increasingly important, since protective against the dust, noise and even increasing dangers, common to schools opening directly upon main streets.

(p) NOTE ON THE MUNICIPAL OFFICES AS TOWN HALL

Tel-Aviv may well be congratulated upon the approaching erection of a new Town Hall- thanks to the vigorous citizenship of the Corporation and its distinguished and unwearying President, to the Public appreciation of their endeavors and success, and now also to the generous and substantial aid of an eminent private citizen.

The Architectural designs are everywhere developing, extending and elaborating, and with growth of all office departments, and even establishment of new ones. Hence the question must be asked is this new Town House conveniently capable of enlargement or extension, in future years? Or will new offices by and by have to be found outside, as happens to so many Municipal Buildings and with disadvantages accordingly?

Presumably these points have been considered and provided for; but a single minor question may also be permitted - May not this building, with advantage architecturally as well as usefully have a Clock Tower? - and thus with provision not only for striking the hours but for the cheerful "Carillon", by which so many Municipals Buildings - witness especially the famous Belfries of Ghent, Bruges etc.- are wont to enliven the passage of the hours. Some day this will be a natural and appropriate gift in expression of citizenship.

Finally (3) as this situation for the Town-House has inevitably had to be in some respects a secondary one since a little behind and out of sight of the most important and

frequented thoroughfares - may not this be given more of spacious and central effect, such as a town House so peculiarly requires?

This can still be done (1) by such widening of adjacent thoroughfares as may be possible, and especially at accesses and view points, also (2) by acquiring the small building sites opposite Hospital Entrance space (already Municipal Property) and the Town Hall Site, eastward. For thus would be obtained (a) direct continuity of open view between the Town Hall and the Hospitals to Westward, with its Garden, and with an opposite access to each from the street between. These accesses might in time have dignified and well ornamented gates, opening vistas to each building and these framed between small flowering trees.

(b) A similar Town Hall access seems still practicable, from the North-South section of Street immediately to Eastward of Town Hall; though unfortunately again necessitating acquirement of several unbuilt sites in private ownership.

These ideas have no doubt independently arisen, and alike to the architect, in the municipality, and to individual citizens. And be they not practicable or not, it is still proper to state them in a Town Report.

(q) ZONING FOR INDUSTRIELS

(r) JAFFA AND TEL-AVIV NETRAL AREA

Possibilities for this important area, which should naturally localize and serve the larger industries of Tel-Aviv, have been broadly sketched on plan shortly before my departure, and with help from Mr. Penn and Mr. Frankle. When the railway scheme has been clearly settled, and its general plans became available, it will then be possible to revise this sketch with clearness and in due details, such as the provision of sidings for factory blocks etc.

(s) NOTES ON ROADS

Nablus Public Road past Power House and Tel-Aviv station and onwards to country. The extremely bad state of this road, beyond

all others I have seen or travelled on, may fairly be pressed on the attention of the responsible provincial authority. It seems only fair that this should make some reasonable contribution to the repair of the portion only recently transferred to city authorities, since its delays during a good many preceding years are responsible for its present deplorable condition. Of course such contribution would not be again asked for; but the road within city boundaries henceforward maintained like the rest.

(t) ROAD CONSTRUCTION AND UPKEEP

Both from time limits and due division of labour, a planner has little to do with these matters. Hence only two brief remarks: and first, that I have been much impressed, and alike in Tel-Aviv and in Alexandria, by Mr. Armstrong's wide experience knowledge and efficiency; and am thus convinced that his ideas on road construction, upkeep and watering in Tel-Aviv will be found suggestive and economical.

Second, that among the many advances in road-making, now so widely in progress throughout the world, it appears reasonable and even probable, that the "Silicated Roads", of late years coming into use in various French Departments may here be found worth trial. Towards this end, I have therefore ventured to suggest that Mr. A. de Leew C.E. be instructed to visit one or more of these regions, and acquaint himself with the necessary technique in detail; and now that he has come to Europe, I am endeavouring to facilitate this through correspondence.

If on his return his report is favourable, I trust that an experiment may be made under his direction and supervision.

(u) POSSIBLE INDUSTRIAL DEVELOPMENTS NEAR AUJA PORT AND NEW GOODS STATION RESPECTIVELY.

Though the Auja development be some years ahead, whereas the provision of industrial quarters for Tel-Aviv and Jaffa, and those in due relation to the main railway system - are matters immediate

and urgent, even these may be best foreseen, and devised, with this near future in view.

Paper

For instance, it would be a mistake to start a Paper-Factory in or near Jaffa or Tel-Aviv Stations. for the necessary ample intake of water (and also outlet of defiled water) can best be provided near the Auja river-mouth. Moreover here would be the place for landing the presumable imports of esparto-grass, not to speak of possible paper export too.

Tanning

Similarly for tanning, the Auja situation is preferable.

Cotton

One or more cotton-factories are also conceivable; and the question of which is the better situation for thee has also to be considered. Is there not reasonable prospect for such industries in the Tel-Aviv-Jaffa industrial quarters, since their large amount of labour (and this largely feminine) can there most readily be obtained; while their consumption of water is more moderate, and can readily be met from the new wells which such a neighbourhood must have.

Silk And Woolen Industries

The existing beginnings in Tel-Aviv of both these are also of hopeful indication, and locations for more of these in the industrial quarter have also to be planned.

Carpets

Given artistic leadership as well as business ability, is there not a future for the magnificent old oriental industry of Carpet Weaving? The abundance of camels in this whole region also invites the question of how far their very valuable contribution to textile industry may be better obtained and utilized.

Furniture Making

Again furniture making is already finding immediate market in this developing region, but there is room for more.

Metal Work

This, not of course on the massive iron and steel level which must probably always be matters for imports, but in all that can here be done e.g. in brass and copper. The old application of these are out of fashion, though probably not all permanently so: but in any case new fields are also open. Thus, in our present age of electric fittings and appliances, is there not even an export market, as for lamps of modern usefulness, yet with something in design and finish of Oriental beauty?

Clothing Industries

In Europe and America these are very largely in Jewish hands: and is not such efficiency coming in with immigration? And why not more, with encouragement such as employment here would give?

Boots And Shoe Making

These now require large factories and their capital; but might not one or two of these here do well?

Larger Metal Work

Returning to metal industries, though we have no metallurgical region, and thus cannot enter world-markets, may it not be possible to do a good deal in the "assembling of parts", since these are more economically thus imported, than as finished articles - e.g. even those of standard forms of automobile vehicles for instance?

Pottery, Glass Etc.

The recent survival of Tile making in Jerusalem, of Pottery, and of glass-making also, may also be suggestive for Tel-Aviv, if and when the requisite artistic leadership as well as business efficiency are forthcoming. May not the Bezalel Art Workshops in Jerusalem be able to produce these, or at least contribute essential elements? (And what too of musical instrument making in various forms?)

Printing

In my reports as to the University of Jerusalem, I have strongly insisted on the high possibilities of the University Press; but there remains substantial scope in Tel-Aviv, for more ordinary printing especially, and this in many languages besides Hebrew. Lithography, music-printing etc. may also naturally arise. And in all these Tel-Aviv would have appreciable advantages - as in saving of carriage of paper uphill and of printed matter down again.

Craft Workshops For Smaller Arts And Industries

It is a reasonable and economic proposition that (where land is cheap), there may be provided a simple block of small Workshops, and indeed a few studios also for artistic crafts; with accessible water, light and electric power when required, and let at rents as low as costs allow, for craft purposes. With Municipal or other aid, some might be even offered rent free, e. g. year by year as prizes for school masterpieces. In such ways young craftsmen will be produced; and encouraging developments might arise. Thus for a single example - why not Toy-Industries, which have for so many centuries been a great factor in steady prosperity of Nuremberg and other cities? Already for instance what are probably the most artistic doll-figures in the world are produced by a Jewish Lady in Jerusalem.

Some space for workshops in or near the future Industrial Quarter, beside the coming new Goods Station, should also be allotted. But this location cannot be defined until Railway Plans are settled, and the larger industries provided for.

CHAPTER V. - PLANNING OF NEW TOWN

From Sommeil and Arab Cemetery Road Northwards from Auja with "Watering-Place" Development, Sports Club etc.

Here the Northward series of Mainways is clear, each running broadly parallel as far as may be, though with some convergence as we approach the Auja. It will be most convenient to review them in order, from the seashore eastwards and with the leading features

of their planning, so far as this yet goes, leaving further possible developments for later and further consideration.

I. SEA-SHORE DRIVE

This will (some day) run along the upper edge of the sands, all the way from Jaffa, and indeed from further south. The Jaffa Tel-Aviv portion as of economic use, may first be constructed northwards from the proposed Port Reclamation Area, as indicated on its plan, and its gradual continuance as between the Casino and the gentle slope uphill below the Tannery, will no doubt be developed in later years as resources allow. Similarly northward, towards the Auja, below the sand-cliffs. But it is obvious that with the development of the Auja mouth as port this portion of the road will here have utility, and thus need earlier construction than other southward portions, save that from Jaffa Port Northwards.

II. SAND CLIFF PATH

For this second road, let us start again from the east side of tannery, and proceed northward; soon passing the Boulevard with its western ending overlooking the sea. A little way north of this, there comes in from S. W. the road uphill from the sands, and (some day) giving (fairly practicable though steep) connection with this Shore Drive. Just north of this point there runs onwards and uphill the path through the Arabian Cemetery. This of course is not Tel-Aviv property, but it may long remain open as a public path - indeed probably as an old right of way accordingly. It practically cannot, and should not be used for any vehicle traffic. But as the pedestrian continues northward he soon passes the limit of the Cemetery, beside the disused sheep-fold and the existing Cemetery wire fence, here running eastward.

III. GOVERNMENT CONCESSIONS

Just as Tel-Aviv has already acquired the seaward marginal area southward, which belongs to Government (and from which the Arab Cemetery has already been granted) so it is now time to be arranging for similar arrangements as regards the long strip along and above the edge of the sand cliffs, and for such distance inland and eastwards as the Government properly extends. This arrangement is actually in progress, if not already completed, as to the level strip of sands west and south of the Auja mouth. As the plan shows, it is now eminently desirable to continue this concession southward from Auja as far as may be - and thus up to the Cemetery Boundary, beside the old sheepfold.

IV. PROPOSED NATURE RESERVE IS WILD FLOWER PARK

Let us now proceed northward from this old sheepfold, where the Cemetery pathway continues along the heights northward we have a fine sea-view, and a fine land view also, over irregular and broken ground with small sand hills and hollows, and brightened by wild flowers (which might easily be spread more fully by a little scattering of seed). It would be a great pity, a great mistake to build on this area, or indeed in any way to alter or reclaim it, even by making regular roads or even foot paths, in place of the present few irregular tracks. For here is the one and only small piece of wild nature which will remain to Tel-Aviv as its extension develops, and thus it eminently needs preservation, as it stands. And this alike for the sake of childhood and youth, for elder walks and rest, for naturalist and artist, for outlook and for meditation too. I cannot too emphatically plead that at this time, when the reckless destruction of the wild natural beauty of the world is at length being arrested at chosen points in all countries, that this progressive city should not disgrace itself, by destroying the last and the finest little spot for nature-lovers within its entire bounds, and indeed for far beyond them. With the example of vast nature-reserves of the United States, of the National Trust in England, of kindred attempts in Scotland and

Ireland, in France, in Switzerland, in Italy, in Germany etc. etc. it is not too much to ask that these few precious dunoms be left in perpetuity as they are. Moreover, alike for ordinary pleasure and educational interest, what better and more recreative walk can any city wish that that from the centre of the city (or only by and by through the central Park and its Public Garden south of Sommeil Cemetery Road or past the now building areas of Shab-Am etc.) and thence seawards (either by the Boulevard or the Sommeil Cemetery Road) to this beautiful wild spot, with its high outlooks over land and sea? In short then the artificial Park and Boulevard require this small Nature-Park as their due contrast and complement: and to build on, or otherwise transform this, would be a serious and irreparable disaster to the higher interests of the town.

I am well aware that there are in every city only too many survivors of the age of industrial philistinism from which we are only beginning to escape, and even here in Palestine; and to whom accordingly the above pleas may seem "mere sentiment" and their rejection may appear "practical" accordingly.

But the very reverse mental attitudes are the real ones: it is the would-be utilitarians who are nowadays sentimentally clinging to their past; and the present proposal is the truly practical one. And this for various reasons, of which two at least cannot but appeal to the thinking citizen, as to the Municipality. Namely, first, that it will be more easy to arrange for the concession of this strip from government, if they are satisfied of such a portion as this is not to be spoilt for profit, but be kept as Nature-Reserve and Beauty-Spot for public and recreative use in all time coming.

V. SANATORIUM

The second reason appears at once, as the plan is followed northward. For now we have immediately before us on the plan the needed (and here proposed) Sanatorium Building, approached by its short drive from the first thoroughfare to eastward. This road however, though so far a mainway, (since continuous with the important road passing Tannery and Silk Factory southward) will

be seen to require no great breadth. In fact it is shown on plan as of only 10 m. breadth, and certainly need never be increased beyond 12 m. For the two main thoroughfares, of this whole New Town, are seen a little further eastwards; and both run on easier contours, well below this higher and steeper road. This road is suited merely for residential use throughout its length, until it meets the proposed new north (Auja) Boulevard. From this point northward and downhill, it is given 12 m. onwards to its entering (or leaving) the neighbouring main thoroughfare, on its westward fork towards the Auja quarter. To widen this street will be to mislead traffic uphill, and away from the better course of the real mainway, immediately eastward.

Returning to the Sanatorium, this is conceived, and indicated on plan, as a large but low building of Bungalow type, with ample verandahs and porches. It might look best with only one storey; but since as many bedrooms as possible are obviously required, a modest second storey is necessary. But this can be given a pleasant aspect by having the roof brought down, so as come between and over the windows, which can thus have an upper verandah shelter; useful also as open-air sleeping balconies.

The ground floor would need a large open central Hall, opening westward by a small porch, and eastward by a larger one for afternoon shade and rest. This hall would serve as salon, and for recreative uses, in evenings especially so, even with a good dining room, and due space for kitchen and service, there remains a fair amount of ground floor space for bedrooms; as well as the whole upstairs area. Wings can also be extended eastwards, when required.

This Sanatorium may soon be kept going throughout the year as its breezy height, and easy access to sea bathing, cannot but make it widely attractive. During the Tourist season such a Sanatorium should be easily made profitable to comers from Europe and in hotter weather from Egypt, for which this offers coolness beyond that of the Alexandria shore. Palestinians might also readily come here, as notably from Jerusalem, especially in its cold weather. The value of the small Nature Reserve, towards the Cemetery will thus now more fully be appreciated. The planting of a few Tamarisks along the north side of Cemetery will suffice to improve the aspect of its fence.

Sanatorium Quarter - "Marino"

Furthermore I strongly recommend the reservation (or at least first offer) of the front sides of this high sea neighbourhood for kindred uses i. e. for Hotels and Boarding-Houses, and for physicians etc. especially such as take convalescent and resident patients of various kinds. (The tuberculous etc. should have separate accommodation of their own.)

Watering Place And Health Resort

In fact the whole planning of this "Marino" quarter, as I may call it, is conceived - and I plead for its being definitely zoned towards developing (on the small scale of course, but as efficiently as may be) one of the leading health resorts of Palestine. Tel-Aviv needs industries; and here is at once a practical and remunerative one. No other spot along the coast can be made more attractive; indeed after planning Haifa in 1920, and despite the magnificence of Carmel, I do not recall any single spot so conveniently situated for this purpose, and with such variety of health advantages and recreations within easy reach. A steep path can easily be led downwards to the shore, and bathing boxes provided. True, the shore is rocky, and the sand too irregular. But it is easy to put down "groynes" on the sea edge, between which a sandy stretch of beach would very soon be deposited and conserved. Some local knowledge of winds and currents is of course necessary; but much help towards the practical problem will be found in the "Report of the Royal Commission on Coast Erosion", published by the British Government sometime before the war.

VI. MEDICAL ORGANIZATION

Returning to the Physicians above mentioned, those need no longer all be merely separate specialists, each "on his own". No line of medical progress is at present more progressive and more promising than the rise of "termwork" among medical specialists, headed by distinguished general practitioners. For thus each patient of such a collective Sanatorium group is carefully overhauled in all respects: his weak points are thus detected, and "the stitch in

time which saves nine" - in this case as many or more years - can thus be given. The patient is sent away, not merely temporarily relieved of his immediate symptoms, but re-educated towards general health, and throughout a thus prolonged life and activity. The reader of this report may have heard in Leysin or Evian in Switzerland, of Battle Creek in U.S.A., of Banff in Scotland and so on; for everywhere throughout the medical world such groupings of medical thoroughness are arising: and the one which takes this initiative for Palestine may well be here. As personally acquainted with recent beginnings of this kind near Edinburgh, and as planning (indeed beginning) the like at Montpellier also, I can all the more positively testify to the practicability of the present scheme for Tel-Aviv.

VII. ANCIENT EXAMPLES

There are moreover the most ancient and venerable precedents for such medical centres. Not only the Roman Baths, as from Tiberias to Bath City in England, and with many between, but yet more eminently and completely in Ancient Greece, and since the days of their illustrious physicians; even Hippocrates himself, the very Aristotle of medicine. As at once the students of healing environments (Air, Water, and Places) and of the "Temperaments" and their respective types of ailments, which need various surroundings, as of sea coast or mountains respectively, he and his fellows built noble Health Cities, far surpassing those of Switzerland, France and elsewhere to this day. Hence Epidaurus in Argolis and more. In these were also the resources of mental healing. Again surpassing ours. Besides the "Gymnasia" for the body, with their duly graduated exercises, their careful dieting etc. there was on of the noblest of all Greek Theatres; while even M. Coué was anticipated as by the calming hopefulness of the mental treatment (and rite) on "incubation", within the temple of the healing god himself, which so often completed the cure.

VIII. PROPOSED OPEN AIR THEATRE

Without hoping to go so far as all this, note a little north of the Sanatorium, the Open-Air Theatre; formed here quite simply, from the natural slope of the sandy vineyard: and with a stage in front, which the Boy Scouts can build, with no more expense than that for timber, and supervising direction, by a good carpenter or two. On the many uses of this I need not descant, though I can speak from long experience. I am again constructing one at Montpellier, and as part of its coming Sanatorium, as well for the "Felibres" - the provincial poetic and dramatic societies of the city and region.

IX. SPORTS CLUB

Again, note beyond this the Kindred building on the same line and the cliff edge road as the Sanatorium - that of the Sports Club with its grounds. The Committee of the Sports Club having furnished me with their requirements, for open air gymnasium, hockey, tennis, football, cricket etc. I am able here to meet all (of course with a little levelling of the sand) within this area; cricket alone excepted, save for practice, as for real games a larger area is required, which we must seek outside the city altogether, save in so far as there may be carried on in the Sommeil Road Park, S. of Nordia.

IX. NEW GYMNASIUM

Furthermore, note just north of the "Auja Boulevard", which we have thus reached, the needed future Gymnasium (now in the scholastic sense of the word). For that at least three centres of secondary education will be required as the city grows, is not a high estimate; but before long may be found sufficient, perhaps involving a fourth before many years, also say further east and south and in the neighbourhood of the Auja hill (Or Possibly nearer Sommeil or towards Saron?) Enough however for the present planning.

Note that the proximity of the Sports Ground affords a mutual advantage. The Gymnasium can not only furnish young athletes but reasonably contribute something, if need be, to the upkeep of the Sports Ground - why not in work by the boys themselves? For the use in the main part of the school day, since the Sports Club would mainly use this in afternoons and evenings, save on holidays. Yet the Gymnasium ground should not be curtailed from the moderate dimensions shown on plan; but left mainly used for Gardening as so admirably around the Herzl Street Gymnasium; and with perhaps a tennis space etc. for the girls.

X. SPORSTS CLUB-FURTHER POSSIBILITIES AND SUGGESTIVE EXAMPLES:

Returning to the Sports Club, I need hardly point out further advantage of proximity to the sea, alike for swimming, water pool, boating etc.

But next from lifelong observation of the progress deteriorating influences of Sport in Britain, where football and gate money have combined to degrade our athletes, and our public too, both in intelligence and in character, since these ends are exaggerated into the main objects of life, for too many money-players, speculators and gamblers alike - I cannot but plead for an ennoblement of these athletic aims. One way is to have prizes of honour, like the "parsley crown" of the old Olympian games. Another is to utilize and to co-adapt the invigorating sports into grouping towards varied excellence, as in running, jumping, wrestling, swimming etc. etc. an adaptation of the "Pentathlon" of the Greeks.

As in American Universities especially, the gymnastic director should have physiological knowledge to prescribe the right exercises for each member of his classes, and to avoid the wrong ones; for without this, much mischief is done in our British Schools and Universities, as the so frequently shaken health and shortened life of too many of the athletes show.

Beyond all this, I appeal to the Sports Club not to think first of "Gate-Money", which prostitutes Sports in Britain, America

and more, and in these days so deeply. But rather to investigate and utilize the finer examples of sports for their own sake: witness the Bohemian "Sokols", which have been already suggestive to the Maccabeans. Witness also the "Highland Games" of Scotland, with their splendidly athletic dancing, and the recent revival of country dances etc. in England, in which girls can more fully participate. Note too their fits of strength, as of throwing the hammer, and the stone, and like tossing the tree, an amazing combination of strength and skill. So on for Cumberland and other wrestling, (preferably without the sinister element of Jujitsu) and so on for vaulting etc. American Base-Ball may doubtless be introduced, and so on.

Again, beyond even dance, come the musical Choirs and even bardic and poetic rivalries of the Welsh "Eisteddfod", a tradition which since antiquity has inspired the Welsh, and which is increasingly making them the most songful of peoples. But why should Wales have all the harpers, Scotland the dancers, and Israel only the remote and biblical tradition of them all? Surely in these respects the achievements of King David are not beyond renewal. At any rate these surely should be an inspiration, not an inhibition, to Jewish Youth!

Finally the Theatre, with its open air plays, its historic and other Masques, and even City Pageants, should soon be in active use and by all the increasing schools in Tel-Aviv in turn as well as by the correspondingly increasing Dramatic and Musical societies. Here take an example from Rabindranath Tagore's School, Agricultural College and Nascent University (for which, with my son's aid, I have been privileged to plan and to which my first contribution was the lay-out of a good large open air theatre for students and villagers alike). As his own professor of Indian literature, Tagore does not merely comment on classics, as the University custom elsewhere is: he reads or sings his new poems. Better still, he writes a play; he acts it with his students, and thence takes them for three nights to the largest theatre of Calcutta, where again he not only acts in his play, but leads the song, and even the dance.

Here then are many precedents and encouragements for a true Sports Club, in the cultural sense. And for this two largest and

best of the world's experience shows that funds come in without the modern degradation of gladiatorial shows for "Gate-money", and generously from rich and poor, appreciative alike.

XI. LARGER PLAYING FIELDS

It will however still be urged that a larger field is required; but at the high price of land in Tel-Aviv, I cannot find or recommend any such area. There are however possibilities further afield, and at various points. The most promising appears to me east of the Wady Musrara, and south of Irganim, a district which will before long be fairly populous, as also the intermediate new village of Montefiore shows. A substantial area, extending the Irganim estate to south, has also been acquired by a Jewish company; and from conversation with one of its directors, I gather that the lease or sale of the Park area may be possible on reasonable terms, the more since this would attract purchases and tenants to their adjacent building areas.

In such a Park the fine exercise of riding would be possible. But again, as at once a planner for true sports, and a social witness and critic of their degradation, I must not hesitate to discourage racing. For in brief, riding is the education of youth to the manly and the chivalrous; but racing is everywhere its deterioration to the "Horsey". And it is surely not for a Sports Club of professed Zionists - and here in this new city for the potential ennoblement of Israel - yet also not without elements of potential degeneration, to Phoenician and Palestine levels - to land itself to the deterioration of its young MACCABEANS to the level of jockeys and betting men, and their fellow citizens to the crapulous crowds convened by London's Derby Day.

Yet beside this criticism I must also recall Ruskin's vivid statement of the values of learning to ride a horse, and to manage a boat, as among the very highest since manliest of the educational possibilities, and even needs of youth. These I can confirm throughout life; alike from young personal experience, as a parent, and as an educator. Let the Sports Club by all means have its Riding School, its Boats as well. Even their very risks are of

educational value: youth is stirred to manhood by "the bright eyes of danger".

XII. POSSIBLE MARINE AQUARIUM

A further attraction to and for Tel-Aviv, may not an Aquarium be provided? not of course on so large a scale as at Naples, but in the modest and inexpensive style of that at Madras etc. In view of the many tourists who come and go by Jaffa, a situation further south would however be more profitable (when the Casino was constructed, this Aquarium might conveniently have occupied its basement).

A site still nearer Jaffa would however be still better. Indeed the most successful way would be to organise this for both cities as a common undertaking, indeed as a new centre of interest and education and for their whole district, indeed even for Palestine and beyond, since there is as yet no Aquarium at Port Said or at Alexandria.

Furthermore, this would naturally become of substantial service and value for local fisheries, as already so commonly in other countries, and thus also as a centre for Marine Researches.

XIV. NEW CEMETERY

The approaching exhaustion of free space in the present cemetery makes further planning necessary. But in cities there are two policies at variance. For while, in the past, interments were within the cities, and thus as accessible as possible to the visits of mourners, the increasing tendency has been to go to the outskirts or beyond them; and this partly on sanitarian grounds, and still more for the economic reason of cheaper land. An ill-placed graveyard has often contaminated wells; but this existing one is quite outside their area, and its central accessibility is thus all to the good, for with the ordinary deep burial there are no other dangers.

On the ground that the reverend memory of the dead has been

and continuous to be, one of the most deeply moralizing influences of humanity since all but earliest times, and in practically all civilisations and religions worth the name, I cannot but disapprove the recent tendency of great cities to exile this influence; and feel it as associated with the deterioration of their family life, and of their moral level generally. Yet I have failed to find within the range of planning here concerned, a suitable and not too costly area, of the four hectares of thereby which calculation shows to be about the need of the growing city for the next generation. I therefore suggest the acquirement of a larger space, say 8 hectares, associated with the suggested future Park by a belt of trees. As there already motor buses on the roads in this direction, and these communications will improve and increase, the visits of mourners will not be too difficult.

Of course only at most of single hectare or less at a time need to be taken from Parks place or from cultivation, and an extending area will thus here longest remain possible.

If and when such a new cemetery is required, the present Cemetery, unless enlarged, may soon be closed to new interments, and reserved for those who possess family rights or claims. A small range of ground might however with advantage be retained, for cases where it is desired to express public honour and to commemorate individuals of recognised eminence and service, in whatever field.

Possible Extension of Present Cemetery

The present Cemetery may however be extended, and in two directions (a) on the west by expropriation of a row of unbuilt plots, and (b) on the north, of a single long plot as yet unparcelled. These additions would meet all needs for a good few years to come. Either would also afford a convenient and dignified entrance, superseding the present inconvenient and ugly one, and also afford space for appropriate planting; which has as yet been delayed. Here of course the solemn beauty of the Cypress is of course appropriate, yet this should be relieved by the occasional or regular introduction of flowering trees of various colours, since memories become happy as well as sad.

In such ways a Cemetery becomes a City Park, and indeed its

noblest, since far higher and deeper moods of mind than the simply recreative ones. Witness here especially the "Campo Santo" of each Italian City.

Proposed Small Park At Auja Hill (To East & South)

I am aware that this ground has been proposed for a group of Workman's dwellings. But this does not appear to me to be a practically working scheme, for the immediate future at any rate. For the present distance from town is too great; and especially when the road connections are considered: while their costly improvement would not be a profitable outlay, even were funds available, and necessarily taken from far more urgent needs elsewhere. The levelling of this ground, at present by far the most irregular in the entire town planning district, would also prove more expensive than has yet been realised: whereas this very irregularity, easily softened at points of possible danger, and beautiful by some tree-planting, will make this one of the best of most attractive playgrounds and picnic centres within excursion reach: and with which boy scouts and girl guides may work wonders.

There are a good few points of course, along the road-side of this irregular ridge, where good houses may be erected, and with moderate gardens, yet leaving the more irregular areas between for recreation uses as above. Thus a portion of the outlay may be recovered: but this compromise is the utmost I can recommend.

CHAPTER VI. - NOTES ON WATER SUPPLY AND DRAINAGE

i. Notes On Tel-Aviv Water Supply

With all due modesty, since the technicalities of Water Engineering are beyond my province, I set down such few notes as I may. I have first to accept some possibility of contamination of the town wells; on account of its defensive rockbeds through which borings pass, being possibly more or less discontinuous, and thus capable of allowing infiltrations between them, of polluted water, from septic tank percolations, or other sources.

If it be found that water, even from new borings in an open

area of some extent, like that proposed for the new Sommeil Park, becomes appreciably contaminated, it will be certainly time to go further afield. Yet, after all, contamination may enter water in many ways. So may it not be found easier to purify such slightly contaminated well-water than more polluted water, say of the Auja.

ii. Sources of Auja

I have thus felt a strong interest in seeing the sources of the Auja; so during the recent visit of Mr. Armstrong, Sanitary Engineer of Alexandria, we agreed to ask Mr. Avigdor City Engineer and the Water Engineer to join and guide us on a visit to these. We motored to Antipatros accordingly, and inspected the outflows; with the unanimous agreement that these are not rock-springs at all, but simply appear from the long underflow of what are in the rainy season open water sources. The waters thus bear the pollutions of agricultural soil, and doubtless even of upland villages; and so would require much the same purification as those of the river furtherdown, so the long difference and the cost of piping etc. would be thrown away.

iii. Other Alternatives

What large alternatives remain? These seem essentially reduce to two - on one hand the sinking of wells in or near the bed of Wady Musrara - of course after the geological survey and selection, and experimental borings. On the other, the treatment of the Auja water itself, taken at the most convenient point. I can but leave the decision to others more competent; and so leave this matter:- only adding a plea for reduction of the hardness of Tel-Aviv water, which would surely be of benefit to public health, and to convenience also, as in washing etc.

iv. Future Unified Water Supply for Greater Jaffa.

The association of Jaffa with Tel-Aviv, Saronah etc. in fact of the whole Greater Jaffa, present and possible in a single well organised and equitably adjusted water scheme, if of course of obviously and economic necessity for their growing future. In fact I cannot imagine either these intelligent communities failing to consider this, or Government approving more piecemeal or competitive schemes.

v. Current Improvements

Practically however, the due and periodic water tests of the yield and quality of the present sources, do not seem as yet to necessitate, as immediate, the large undertaking above mentioned. Nor does it seem unreasonable to hope that the proposed additional boring in the new Sommeil Road Park may substantially reinforce the present supplies of Tel-Aviv, perhaps even for some considerable period.

For the new Northern Area, up to the Auja, I am not in the position to advise. The long-lying situation of the Central Park may prove capable of affording a substantial supply: but this whole matter requires further expert investigation.

NOTE ON DRAINAGE DIFFICULTIES

I have done my best to understand the present drainage scheme which appears ably designed. But I am not yet convinced of its urgent necessity; at any rate for the whole city, although I quite realise that points of difficulty exist, if not even of positive danger, for Dr. Rankine's case of *Bacillus coli*, in water from the city wells, is not to be neglected. Moreover I quite recognise that the varied results of borings into deep lying layers of rock show that these are not continuous and uniform, but are more or less inter-bedded, thus offering possible passage for the descent of poisonous germs by percolation from above.

I must point out however that if the problem before us, under these circumstances, were to contaminate the wells, there could be no better method than that of carrying down the impure affluent from the septic tanks into percolators sunk as deep as possible into the sand. Personally I have just been building a small cottage and home at Montpellier, also a warm Mediterranean town: but I carry the water from the septic tank straight into my rose-bed, and this small rose-bed, with a fig tree at its foot will readily dispose of all and more than I can give, with luxuriance of flower and fruit accordingly. Again, beside this building, I hope to erect a Sanatorium, and to utilize the skill of all the seven hospitals of my immediate neighbourhood, but even for this

the sanitation will be directly Chinese i. e. into the soil of the surrounding garden.

I have asked the Technical Department to let an inspector guide me to some typical cases of difficulty of drainage and I not a little astonished to find these so small and so easily got over. In an extreme case the occupant has got a number of sewage tanks, but these are pumped into the sand below the paths, instead of into the garden plots. Moreover the plants cultivated are chiefly pinks and carnations; charming flowers, but with a minimum leafage, adapted to the driest soils, whereas, if exuberant plants, vines, roses, bananas etc. were cultivated, the difficulty would be surprisingly diminished. There was some flow of this sewage into the neighbouring plot, still unbuilt. Were I to inhabit this, I should not only welcome this overflow but cheerfully pay for it. Yet so backward is elementary gardening in Tel-Aviv that even the neighbouring florist is afraid to accept it, although with ample vacant sand which this effluent would soon fill with roses and grapes; (although to do him justice the responsibility was thrown on the landlord). Again in recent days an immense percolator has been sunk deep into the Boulevard garden east of Allenby Street to receive surplus septic pit water; whereas this should have been used to water the whole garden. This is in fact an ideal outlet for the surplus water of its neighbourhood through its length. Again the Public Park proposed (south of the east west Boulevard of new plan) can dispose of all its neighbourhood can supply. And returning to the Home-Blocks, their small public garden spaces will help also, as should those of the householders themselves.

The preceding observations appear to me worth consideration, and this especially during the necessarily considerable period before the proposed drainage schemes can be executed, and the large areas which have to wait for these.

But I do not feel competent to offer any criticism of these drainage plans in detail; the more since I have every confidence that in such expert hands as those of Mr. Avigdor and Mr. Armstrong they can be successfully carried out, and as fast as funds may allow.

CHAPTER VII ARCHITECTURE AND GARDENING WITH BOULEVARD AND PARK SYSTEM IN TEL-AVIV

I. ARCHITECTURE IN TEL-AVIV

While none but realise the growth of Tel-Aviv - so striking since 1920, and now more accelerated than ever - its architecture has many critics. It at first seems a mere medley, a struggle of individual fancies; as of course so commonly in the west, from which citizens and their architects alike have so recently come.

At the same time, it is only fair to recognise distinct tendencies towards improvement, and these at good many points. Increasing acquaintance, both with the Association of Architects in Palestine and with the Association of Engineers and Architects, hopefully impresses me on the whole; and I cannot but wish both Societies great success in their endeavours to organise the profession, much as has already been done in older countries. It is also only fair to architects here as everywhere, to recognise that the too frequently imperfect success of their buildings has already to be ascribed to insufficient appreciation by their clients.

Still, the architectural style of most buildings in Tel-Aviv is of distinctly North European Character; whereas we are here in the Mediterranean, and in its warmest part, with highest and hottest sun. The large windows of Northern Europe are thus here excessive and involve a great deal of closing up with shutters, which practically reduce those facing the sun to even smaller dimensions than are those of Arab house ! Without going so far as that, it is evident that common-sense adaptation of this bright light and hot climate requires reduction of sunward window-space accordingly. Again, all through the Orient, the flat roof offers what is by far "the best room in the house"; and though thus the expense of construction is increased, the return is well worth while. Moreover, this flat roof admits of the construction of the top room, with verandah or colonnade to protect it, if necessary. Ad so long as this addition does not amount to a third storey, but is kept small, there can be no objection. But the total area thus

occupied should not extend along the whole length or breadth of the building, nor exceed at most one-third of its roof area.

The present magnificent recovery of classical Hebrew as the spoken language of the Jews in Palestine is of course a first step or re-Orientalisation; but others are needed. Without recommending any mere adoption of Arab Architecture, either in its simplest form in the hillside village - excellent though this is in its way, or still less desiring the over-elaborate magnificence of later developments of the Arabian style as in Cairo, it is important to realise that this architecture and decorative art, at their best, are second to none in the world. The whole magnificent development of European Gothic, in all its varieties, is historically a development of the Arab pointed arch; and the glorious beauty of Venice, in St. Marks and its old Palaces alike, is of similar origin: and so on from Spain to further India. There is thus no discredit, but the very reverse, in learning all we can from this style of architecture, just as we have had to do from the Romans. Yet as all Europe, since the Renaissance, has mainly followed the Roman (or Greco-Roman) tradition, so also still in part may be, the more since the Dome has long become the common possession of all styles alike. Witness Jerusalem, not only with its Moslem and Christian shrines, but its main Synagogues, all domed alike.

Returning to Tel-Aviv, it is thus encouraging to find the beginnings of appropriate Oriental feeling in a good many buildings here and there; and increasingly. The perspective sketches for public buildings accompanying this Report have been made from my plans by a Western-educated Jewish Architect, Mr. Moed, who has also acquainted himself with Eastern Architecture generally, and thus these will serve as examples of the possibility of a distinctly Oriental treatment, without any mere copying from Arabian or other sources. I venture indeed to submit that such drawings, along with those of my colleague Mr. F.C. Mears, for Jerusalem University, express beginnings towards the formation of a distinctly Jewish style. So too does Mr. Berwald's design for the Town Hall, and also his private houses, as also those of Mr. Chaikin, Mr. Minor and others. The development towards Oriental feeling, and with its appropriate Hebrew expression, is thus in progress.

Possible Architectural Exhibition

Partly for the sake of the Architects of Tel-Aviv, but indeed of all Palestine, and still more for the education of their public, I venture strongly to recommend the holding of an Annual Architectural Exhibition. The public are not interested in mere plans and elevations (in fact can seldom understand these), but they appreciate perspectives and sketches, so the more of these are better. Designs for gardens, both private and public are so desirable. The plans of garden villages and new towns are of course also needed.

This exhibition should be given a distinctly Municipal character, and be open to members of both Societies alike; though there can be no objection, but rather advantage, in their being assigned separate well-space, thus promoting a healthy rivalry.

Possible Town Planning Exhibition

In 1920, I exhibited in Jerusalem several weeks a selection from my large Town Planning Exhibition on its way back to India from Paris; and it was fairly appreciated, and nowadays would be still more so. Would it not be of advantage also to hold such an Exhibition in Tel-Aviv? Such an Exhibition of the characteristic qualities (and defects) of cities throughout the world, carries with it a wide diffusion of the idea of citizenship, so important for this new and growing city. Its wealth of examples is also full of suggestions for city improvements and developments, alike in general and in detail.

Architecture Along the Boulevard

Because Tel-Aviv has not made the best of its views and accesses to the sea, this must not prevent our appreciation of the central feature of design of the first portion of Tel-Aviv - they layout on Herzl Street to lead up to the Gymnasium: since here is a definite and well-proportioned architectural vista; and an example too little followed. For later street developments are mostly in this respect planless; and the eye seeks in vain for any culminating feature at all. Yet even a poor feature is better than none. Thus, though the present Town House, with its clock, has certainly no great architectural merit, yet it serves to give definite limit,

and unity, to this portion of the boulevard, which eye and mind alike desire, and as a "garden enclosed", as a garden should be. The next section is again helped towards something of this needed limit by its massive pillar for electric distribution, but how much better if there were more and better features punctuating the boulevard from mere indefiniteness of view, into the garden sections which are to be desired, each thus with a minor unity and character of its own. An emphatic feature of termination, and fresh start accordingly is particularly needed in the obtuse and oblique angles where the Boulevard slightly changes its direction; as at the present tennis-court; so when this portion comes to be laid out why not use this site for a building of more or less public character—say in connection with the future Town Hall not for westward? (Or why not even sell it— and naturally at higher than usual boulevard rate — for a dwelling house, though necessarily this should be of design one chosen for distinctive architectural merit and effectiveness) There is a similar awkward turn of the boulevard at the far end of the next block from this one: and here again the same treatment would complete the effect, especially if such buildings were designed broadly to harmonise with each other, or even in contrast, as is more in the present architectural fashion in Tel-Aviv.

For more than half a kilometer beyond this, the Boulevard is planned to run straight northwards, and there to give off a westward branch towards Nordia. Around this point a fresh treatment is proposed (see last chapter of Report, on Culture Industries), that of a main "Acropolis" building, Museum Galleries (and needed water Tower in association with this upon its relatively commanding height.)

II. GARDENING IN TEL-AVIV

Gardening and Fruit Growing

With all advantages of the present situation of the Agricultural Experimental Station, beside the Tel-Aviv Gymnasium its area and resources now require and deserve substantial extension; and hence it is moving to Rehovoth. Yet it is a great pity to give

up the present site, with its active suggestiveness to so many young scholars, the more since botany and horticulture have still much to do to influence Tel-Aviv throughout its growing range. Interest in garden and rural pursuits must be created early in life, if they are not to become effective later; hence from the Gymnasium will naturally come young people attracted to skilled rural careers. For the majority, who will not go so far, but remain townfolk much may also thus be done. For there is still far too little gardening or fruit growing in Tel-Aviv; and the few leading examples, like the flower gardens of Mr. Rutenberg at the Power Station, or of Mr. Tolkowsky's behind his home and also the intensive garden of Mr. Soskine with others yearly incentives towards the founding of a Horticultural Society, and this with a junior branch as well as a senior one. Periodic Horticultural shows are also usefully simulative as also is the premiation of well-kept gardens. If prizes are given these may be best in kind as of plants, tools, seeds etc. Selected by their winners. Given the unusually large proportion of Tel-Aviv houses which have an appreciable garden plots, it is a wonder and a disappointment not to find their residents already literally "sitting under their vine (if not also) fig-tree", indeed their orange tree and more. The absurdly exaggerated fear of damage by fruit-thirsty children should be met not by their (starvation) prohibition etc. but by ample and generous fruit growing to meet these healthy requirements. This can speedily be initiated, and why not for thousands of homes? This would in aggregate represent a surprisingly substantial economic contribution to the aggregate housekeeping of the community; a distinct gain in family health conditions as well; and in simple happiness. The childrens' tree-planting holiday, of Arbor day, has also very great value for later adult life.

Silk Culture

Now that we have silk weaving in Tel-Aviv, why not begin to produce silk also? Mulberry trees, with their attractive shade and pleasing fruit can be grown rapidly. Moreover, small domestic silk-rearing is practicable in every back yard: given the needed supply of leaves of mulberry, or castor oil plant. Larger supplies

could readily be provided by arrangement with some neighbouring colony; for this could deliver to each house participating a closed tin of leaves, every second day or thereby, throughout the season, and then get its payments in a share in the resulting cocoons, while buying the remainder for its silk-winding workshop. Moreover, silk rearing is a home industry of admirable reaction on home and health, since cleanliness, up to the bacteriological standards, is necessary to success.

Allotments

And now that Tel-Aviv is growing out beyond its sandy area and reaching better soils, cannot the corporation – even despite the high price of land – set apart here and there a few dunoms for allotment Gardens, now everywhere becoming successful throughout Europe.

Trees and Tree Planting in Tel Aviv

The City of Tel-Aviv is poor in trees, and this is commonly explained by reason of its sandy and fry situation and its windy exposure. Yet the few old large trees remaining here and there as west of Tel-Aviv Station, upon the ____ road etc. show that this cupidity in cutting down. Sometimes too far sake of an alignment which it would be easy and in such a case to alter.

From the outset of one of the earliest of Britain Garden Cities, that of Hampstead, it has been a regulation that purchasers of building plots must not remove a single old tree without the express permission of the local authority after consultation with their consulting Architect; and it is encouraging to learn that the destruction of a fine old tree near Allenby Street by-crossing was all but prevented by the local authorities and with the useful lesson of needed strengthening of its powers.

Young Trees in Tel-Aviv

The excellent growth with beauty and shade accordingly and alike to houses and streets – which is now so pleasing a feature of the first built portion of Tel-Aviv (1909-only 16 years ago) and of planting mostly recent is enough to silence objection and

should encourage every new householder to become a planter in his turn. And this even better, as is now easily possible alike with experience derived from these experimental beginnings, and with the skilled guidance which can so readily be obtained from Mr. Warburg's Experimental Station and diffused by the needed Horticultural Society soon, it is hoped to be constituted.

The recent distribution of young trees and plants by the Municipality has also given an encouraging impulse; and, best of all the institution of a Tree-Planting Holiday for the schools corresponding to the American "Arbor-Day".

If and when the Community is then properly interested, there is every hope for Tel-Aviv. With its more than usually garden space around its dwellings, and with building restricted to one third of this area, it can and within a very few years become one of the most successful examples of the "Garden City" – a new type of civic grouping in this respect at once more beautiful and more health giving than any previous form of large community in human.

Proposed Tel-Aviv Horticultural Society

Towards the formation of such a practical Association, the arguments of this whole Gardening Section plainl – lead up. Leaders with the requisite knowledge and experience. Skill and taste are not far to seek; indeed I venture to hope that some may come forward before long to initiate this among the general public, The Prevalence of gardens is in Tel-Aviv usually great, while (most hopeful circumstance of all) the Gymnasium and other School Gardens have now for some considerable time been preparing the rising generation. Teachers and old pupils are thus ready.

Moreover, there can be no time more suitable for such an initiative than the present; since we are here at the outset of a Town Planning Scheme, which as the plan shows, carries the Garden village into the heart of every new city block. The spacing out of the Main Ways, with increased economies of Home-Ways also, is not only better for home gardens, but also yield a spacing of garden common to each group. On Plan these are shown largely as occupies by Tennis-Courts: – (which indicate forms of lay-out come into execution, and use, that an additional plot may – in some cases at least, be added for the common health and pleasure.

At first sight this may seem an improbable economic sacrifice of a building site. But as these larger blocks often provide if no 40 or 50 homes, or up to 60 and more, such increase of general amenity for the given block may readily justify the valuation of its houses by at least that percentage, if not a greater one- in which case the apparent sacrifice becomes justified as an investment; and on improving as trees grow and gardens mature.

In this form of lay-out of large Home-Blocks within Main-Ways, it will be noticed that practically no two interior aspects are exactly the same. Each has its own more or less different character, often indeed distinctive. So the monotony of city block interiors hitherto is substantially abated, and even given a very appreciable degree of Garden Village Character; with local choice, and individualities of planting etc. will continue to increase. (This interior variety moreover will be seen to arise not from any artificial "designing", but simply from the economical lay-out of Home-Ways, so as to lose as little space as possible, while giving every house its share of frontage.

Here then is unusual scope for gardening; and of all kinds, for beauty and use alike; and towards which the Horticultural Society can be of great service from the first. For each block volunteers for the common garden will be needed: - thus forming a local group within the General Society. And that among these a healthy rivalry must arise, is at once human nature, and one of the best outlets for it. I am therefore much encouraged by the promise of our indefatigable Mayor to take an active personal interest in encouraging these gardens, by an (at least yearly) official visit, and with due appreciation of the best among these (And how better than by introducing the simple and charming old Indian Custom, of honouring successful leaders or workers, by the award of a flower-garland!)

I am well aware that such schemes may appear at first sight "Utopian" to many. But these are none the less verified and justified by experience of the past generation. For even in Edinburgh and Dublin (cities in which the slums are slummy to a degree Tel-Aviv can never fall to) such common gardens, and in the most unpromising of situations, have long been proving a success; and this with only the very rarest temporary neglect or damage,

enough to justify further hopes and endeavours even with these. Such garden schemes are thus in no wise "Utopian Dreams", but Utopian Facts - the very best sort of facts.

Significance Of School Gardens

The present practical union of the garden of the Experimental Station with that of the Gymnasium School Grounds, which is so familiar to everyone in Tel-Aviv, represents two elements soon to be separated for reasons of space; but each is invaluable, and it is to be hoped that they may remain in future co-operation, though separated by distance. For while the skilled scientific institution is providing for the increased success of rural developments, these school gardens are in their own way no less important, by giving that touch of rural interest to the young city minds, which in most schools heretofore have been starved of their needed interest and understanding of living beings and processes. It is thus very largely from lack of gardens that schools are so much condemned to a vicious circle of verbalistic and mechanistic conceptions. Indeed it is not such narrowed training a serious factor in producing the world-wide "mechanical and pecuniary culture?" All the world can see that Zionism stands for regional reconstruction, for better combination of town and country accordingly; so hence the opportunity of Tel-Aviv. Yet not all Zionists, nor all Tel-Avivians themselves, have as yet sufficiently realised how significant towards these desired ends is this small Garden Area, at present so happily divided between rural experiment and vital education.

Hence, in vaunting here in Europe, this Gymnasium, as far more successful than ours - (since really familiarising its pupils with their classical language, while ours go on so much failing to do the like with theirs) - I also insist on this excellence of this school gardening, to a degree of interest and activity. A vital education needs such tending of life, and advances with it.

Further School Gardens

The provision of a garden at the New School, a little way N.E. of the Gymnasium, is so far encouraging. But as compared with school gardens in other countries, it is of disappointingly small

and finished character; and worst of all not only high fenced, but with barbed wire as well, a precaution quite unnecessary. This I can certify from life-long experience of school-garden making; for even in the roughest quarters of backward industrial towns, the children themselves can immediately be trusted. They become careful beyond all expectations, with educative and moralising result accordingly. Alike by public opinion and by Municipal regulation, all barbed wire defences whatsoever should disappear from Tel-Aviv. Croakers may safely be disregarded: a community advances by mutual trust, and deteriorates with every such sinister expression of malignity and fear, such as that most abominable of modern inventions (before that of war-gases) implies.

The smallness of this school garden may still be compensated by regarding it as the start-point for school gardening in the adjacent Boulevard in which each group and school have its sections. What fine rivalry? With which not even that in sports laudable though that be, can fully compare.

Central Park (With Small Botanic Garden)

But school gardens are not enough. Just as School Libraries are but preliminaries to Libraries proper, so again here: the school gardens and boulevard garden sections, alike need to lead to the Public Park, with Botanic Garden proper. In every University city this is a leading beauty spot: and even the vast London, with its many parks and pleasure resorts, has the best, and the most popular of all, in the Botanic Garden at Kew.

Jerusalem University, it may be said, will no doubt have its garden before many years: but at that high altitude, that difficult and wind-swept situation, it cannot approach the possibilities of the Palestinian plain. For due presentment of these, Tel-Aviv seems too dry. But happily within its advancing areas there is a single lowest-lying field, thus too damp for building sites without expensive drainage, but all the more admirably suited for Park and Garden purposes, and with only limited summer expense for watering from the excellent adjacent well. It is therefore shown with suggested lay-out as Park, on the General Town Plan: and its conveniently central situation, for the larger Tel-

Aviv between Jaffa and Auja, will be appreciated at a glance as also its easy accesses by main city thoroughfares, as well as by the continuation of the Main Boulevard, to which this Park will furnish the appropriate culmination.

I have also been fortunate in going over this area with Prof. Warburg, who authorises me to submit his accompanying letter (see appendix)

Lay-Out For Park

A general lay-out for this Park is indicated on plan with drives and walks adjusted for variety, and with a space for athletics and contests, dancing etc, in front of stand.

Botanic Garden

All that is here suggested amounts only to a further lay-out of flower beds and borders, in their order and in their beauty each enhancing the interest of the other.

The Boulevard System And Its Possibilities

The first two gardens of this Boulevard, immediately to westward of the Town House, and now well grown since their planting about fifteen years ago, have proved a great success. The more recent continuation is much less popularly attractive, since still without shade; for its palms need time. The lack of an opening from street is worth correcting. The very poor building and an iron wall of its surrounding parapet also need repairs. In future sections the parapet should be better designed, but the best treatment is to cover it with free-growing climbing plants of which we can have such great and beautiful variety throughout the seasons e.g. Bougainvillas etc. also Banksia and other spreading roses etc. These would run along the parapets yet be easily kept from appreciable narrowing of the carriage-way. In the next section of the Boulevard, its Grevillea trees will also be reach in flower and shade before long, and it is time to begin planting further northwards.

By the delay in planting of these sections, the taking up of the relatively more costly sites along the course of the Boulevard has been discouraged: whereas, once well planted, buyers and

builders would be attracted to this main line of city development, and that of the neighbouring streets would follow. At present, these are outrunning the boulevard line for people do not readily pay its higher prices for advantages not yet beginning.

I am aware that this delay has arisen, in part, from the limited budget available. Yet it is not largely because this, and other central lines of attraction, are not developed, that building over Tel-Aviv is so scattered - with great extra costs and outlays to the Municipality as well as to all concerned? To fill up the existing Boulevard and street lines more continuously, (as was done in the early years of Tel-Aviv) is obviously very desirable economy. Hence the various quarters of the town should not be scrutinised, with the view of accelerating the building of their vacant plots, by every possible method.

What are these possible methods? Tree planting in Avenues, and in all available points and corners, as well as along the Boulevard, in the least expensive of these; yet one gently suggestive, and even to some people persuasive. And the fullest possible encouragement of gardening, around existing homes as by help of the needed Horticultural Society, will also be found helpful.

Here too the schools have great possibilities, as the American "Arbor-Day etc. have been proving. With this also organisations like Boy Scouts, Girl Guides etc. will increasingly co-operate. So also the Macabeans etc. whose large turn-out on all public occasions (as lately for Lord Balfour's and Baron Rothschild's visits) indicated an immense fund of social energy, for which increasing outlets are needed. Instead of offering planting-plans for the sections of the Boulevard, for school gardens etc. I suggest that these be obtained with co-operation with their fuller knowledge of the Experimental Station. For thus it may design along the whole remaining vacant length (or well over 2 kilometres, and in it 25 or more garden sections) a series of representative groups of trees of all kinds - as from species of Eucalyptus in one garden to varieties of olives etc. in another and so on. This would be of the highest interest both practical and scientific; and suggestive for future developments alike of utility and beauty: indeed not only throughout the city,

but for the surrounding districts as well. I fact here is a very substantial total area, waiting for development, and amounting in aggregate to the "Arboretum" which is so important a part of each of the great Botanic Gardens of Europe. At present land prices, this cannot elsewhere be hoped for; while it is here already available without further land acquisition. It is thus not too much to say that this long Arboretum Boulevard would speedily be a distinguished and attractive feature of the city and one even suggestive and instructive for Palestinian development. There is here no serious demand upon the city's budget beyond the provision of the necessary water, which has in any case before long to be provided along this whole distance. The design, the execution of the planting, and even the great part of the subsequent care, is essentially but a matter of organisation. The scientific knowledge and the pleasing designs are readily available, and there is no lack either of the needed - youth-ful energy or public spirit. To arouse, to maintain and to increase this spirit and mobilise this energy accordingly, are tasks fully within the powers of a small voluntary committee; as can be easily verified by reference to Edinburgh, Dublin or various American and other cities. For when even their dullest and most difficult quarters have now thus been increasingly brightened through many years part, it should be a far easier matter to do more and better, in these more favourable conditions of Tel-Aviv. In each of the cities above named the active initiative of a single lady or two (soon gathering more) has been enough to supply the mainspring of the growing and enduring movement.

CONCLUSION:

Garden Idealism in Practice Throughout Tel-Aviv as Garden City

There is no other modern city, which so specially owes its origin to a great wave of social idealism and aspiration, and which so actively and increasingly continues this. Tet wee is also the temptation, and the weakness of all human idealism, to be too

readily satisfied with its verbal expression, with too little realisation in corresponding deed. Hence in fact arises much of that disappointment, so uring even to cynicism, so characteristic of the present period After-War.

Yet this world-sickness is curable; and in no place, in no respect more readily than here. For to "sit under one's vine and fig tree", is one of the most definite images alike of the Ancient Bible and of the mind of the modern Zionist settler: while to convert this into reality is one of the very easiest and speediest of all biblical counsels of perfection. Four years after planting, one's vine will be ample in shade and fruit; nor will the fig be long behind. In seven years, orange trees are bearing abundantly, and it is surely common sense that a community which has to fell whole orange groves for its expansion school all the more diffuse the equivalent of one throughout its gardens. So too for the useful and beautiful lemon; and it needs no very large garden to find room even for an alive as well. The joy of spring diffused by the almond in blossom increases from the second year after planting, and with little waiting for its wholesome fruit. Speediest too of all, each may have true riches from the rose.

It is for our coming Horticultural Society then, to arouse, diffuse and establish these and other permanent interests, and as a characteristic feature of the town. In short, not only as one Garden-City among many others over the world, but as peculiarly Fruit-Garden City - "Almond City" - Orchard City, Vine and Fig Tree City - Orange City and more. The arguments for such a progressive city policy are abundant and convincing; and on all levels, from this of health and domestic economy, to the enhanced happiness of the household, from such practical realization and continuance of the Feast and domestic economy, to the great portion of the year. The simple child, the learned and the thoughtful Rabbi, can have no better meeting place for mutual understanding; and so to the school pupils and the students of histories civilizations, who are increasingly finding how deeply the rise of Hebrew wisdom (And of Greek Philosophy also) was associated with that of fruit culture, as not only one of the most civilized, but also most civilizing, throughout the whole carried range of human occupations. So too what the present has

always practically known - the practical association of fruit-culture, and especially of olive culture, with peace - is now clearly verified by social science. So is it not peculiarly for the most international of peoples, and that longest inspired by the ideals of peace, to be clearly expressing, actively realizing this fertile association, and as a world-object-lesson within this, their initiative city?

To unite economic efficiency, as fundamental, with ethical idealism, as supreme - this is surely of all characteristics of Jewish culture, is one of the most distinguished. Hence too, so conspicuous in its literature, witness not only the book of Proverbs, and the wisdom of Solomon, as here fundamentally classic, but much also before these and after. Tel-Aviv assuredly maybe-so surely must be - a living and contemporary evidence of this harmony of thought and action. And towards this in all directions, what better beginning than by spreading over the whole city, its verdant and expanding banner, fruit-emblazoned in purple and gold.

Difficulties and Minor Objections

There are no objections to such a policy which cannot easily be met. Nor are there any difficulties which cannot be easily overcome. One of the main causes underlying both difficulty and objection is the fear of petty thefts by children, small boys especially; where for instance barber wire defenses, at once hideous and ferocious (Which should be interdicted municipally here, as in Britain and other countries). As through life a gardener, on the large botanic scale as well as on the domestic one (And as it happens, near school) I understand these occasional petty thefts quite simply, as a Naturalist. For just as the bees feed on our flowers and the birds cannot but share our cherries, so these youngsters are evidencing their no less real and vital needs, at once bodily and mental, of fruit and flowers. So when the young robber is caught in the act, my old gardener or I simply say to him "why did you not ask for them, here is a better bunch for you!" He is thereby not a little astonished; while the practical result is, that once known throughout the neighborhood as kindly instead of angry, we are no longer appreciably robbed at all! For

the element of sport and adventure in such small robberies is also a main one; and when thus taken away, they cease. Moreover ample gardening among all classes meets all physiological needs, and temptation disappears accordingly.

Another trifling but common objection is that trees grow up to hide views. But these are taken care of in skilled planting, or can be restored by a little careful pruning, often but of an offending branch. Moreover, thinning of trees is easy and yields a little useful wood as well, for at least.

Note:- A good many of the preceding considerations and suggestions as regards (I) Architecture and (II) Gardening alike - will be seen to apply broadly also to Jaffa; and at least II to Saron also. Might not both be advanced through civic co-operation as well as separately?

Wadi Musrara And Its Possible Park Way

Nothing is more characteristic of the current redemption of American city extensions, from their part recklessly destructive confusion, than is the preservation of the banks of rivers and streams, even the smallest, as Park strips, with woodland paths along their course. And though as usual such proceedings were at first deemed "sentimental" and so on, the immediate and substantial rise of land values by the demand for pleasing homes along such banks, has converted even the crudest utilitarians. The term Park-Way is thus coming into general use.

Happily for Jaffa and Tel-Aviv, for Montefiore and Saron etc. alike, the long and widening banks of the Wadi Musrara remain unspoiled. They are thus ready to be utilized throughout their length, and by associated and collected action among the three townships concerned.

Speaking under legal correction, I understand the view to at least some riparian proprietors - that their property extends to the middle of the stream of bed - to be mistaken. IS it not the fact that all streams and Wadys, up to their ordinary winter flood level, belong to Government? - i.e. to the public? And is there not even also a traditional and public right of way along this flood edge?

Is it not fair to recognize that the adjacent proprietors

have often planted trees. And as this form of private investment is also a public service, they should not be made to suffer for their measure of encroachment beyond their strict boundary. But it should now be the turn of the community to acquire from them, on reasonable terms, a broader margin of wider boundary sufficient for a moderate footpath on the far side of the wady, and even of a moderate drive of say 7 m. or so upon the town side, through the construction of this is of course by no means urgent. Planting of appropriate trees and shrubs should be continued. To realize the attractiveness and charm of this long Par Way, it is sufficient to take a ramble along any _____ stretched of the banks. For its full extent however wooded stretch of the banks. For its full extent however, the airplane survey map is needed, for here we see the rise of the Wady, and its whole course to the Auja. Note too, how to the east of Jaffa there is a fair sized island; and as this has little present agricultural or housing value, it should easily be acquired, and planted as a future park, easily reached by a light wooden bridge. And though such an island does not again occur, there are curious loops and corners which should be acquired by Saron and Tel-Aviv for plantation, with small open playgrounds and picnic places.

As water stands long in ponds here and there, along the lower course especially, mosquitos develop, and cases of fever may arise; whence a demand for drainage. But it is neither in the interest of neighboring agriculture, nor it is neither in to have a dry wady; and this method of suppressing mosquitos is the wrong one, and already becoming obsolete wherever more advanced knowledge comes into practice. Such a park-way need only require one or at least two guardians to range along its length, and these should be employed by all the participating communities in common. With the help of the Boy Scouts, moderate sized dams can readily be converted at the appropriate points and swampy spots can thus be converted into large and larvae, as the old method is, it is better (1) to introduce larvae-eating fish, which are easily obtained, even to the splendid gold-fish; and also (2) to encourage ducks, whose perpetual gobbling among the weeds also destroys such larvae as here escape from the fish.

A further use of the acquisition of the long Wady so that it

admits of the sinking of Town Wells below its bed, which should yield abundant water and need less costly purification, and also shorter piping, that water from the Auja.

CHAPTER VIII.

CULTURAL INSTITUTES FOR TEL-AVIV

Given the present Main Synagogue, and choice of sites another later (that suggested in this report, being at West end of Main Boulevard where it comes to overlook the sea) minor synagogues will naturally continue to select such building sites as they find convenient.

Hence what remains to be considered? First the nature such further Culture Institutes as are necessary for the City development, and then due location for these.

1. Gymnasia

The existing Gymnasium has proved an excellent beginning and its successes, alike in the revival of its classical beginning, and in preparation for gardening and rural pursuit, are alike making in an example to the older schools of Europe. And as already noted the Extension plan must carry with it the future provision for more such High Schools.

2. University Extension etc.

But what next? Each of these lines is capable of further development; and without at all trespassing on the higher studies which will be developed at Jerusalem University and its Training Colleges, there is ample field for further adolescent and adult training in Hebrew and other language and literatures, in sciences too; why not indeed as the beginning of that University Extension movement in which British American and other Universities have so long been active, and are in many cases increasingly successful?

Tel-Aviv might also have excellent Vacation Gatherings, especially attractive and healthful in what is the cold season of the inland heights.

So too, though the Haifa Polytechnikum is not to be competed with, it can increasingly give its contribution to Tel-Aviv also. The extended plea for the horticultural arts so strongly urged in Chapter VII, leads naturally to the beginnings of a School of Gardening and Fruit Growing, with increasing influence throughout the town, as well as training for rural immigrants.

3. Further Culture-Institution

a. Library. For this large reading public several libraries are of course already in evidence: yet all these, as inevitably planning on a larger scale than even the old Town House can admit; the more since a community reading in so many languages has far wider demands than can any similar-sized city in Europe. There is thus no avoiding such provision: and it is at this time of town planning for the future that an adequate and central site has to be found and reserved, one with space for substantial extension, as growth demands. Branch libraries too, as in other cities, will by and by be needed as well: but as for these an ordinary building site, or at most two, will suffice, their location may safely be left to the future, though the main library site needs settlement at present.

Cinemas may safely also be left to locate themselves in suitable positions. Yet much might be said for locating as soon as may be a cinema of more definitely educational purpose and in the neighbourhood of the library and other main institutions (e.g. on Nordia Road c. of plan).

Theatres too are spontaneously arising: and the future will evoke yet more; with Musical Societies and Concert Halls as well. Yet all the more will be required a first-class City. Theatre and Opera House: indeed here is the first point at which it is for Tel-Aviv to take the foremost lead, as necessarily the dramatic and musical center for Palestine; and with Jerusalem and Haifa as but on the second plane to it, and minor centers upon a third

level; so that to all those, tours and visits can be arranged with advantage to all concerned.

But to establish and maintain this metropolitan initiative obviously the rise of a Conservatorium, for nothing short of aiming at and preparing for a first-rat Dramatic and Musical College will suffice. With this too goes training in Eurythmics and Dancing; and this may advantageously co-operate with a center of Gymnastics of the more useful kind; and this whole system then also be utilized by school teachers and their classes by day, and by the employed population in their evenings.

The importance of establishing and diffusing a high standard of musical and dramatic art need not here be enlarged on upon either sacred or artistic grounds, to a community so able and willing to continue one of the most ancient tradition of Israel, and also that longest and most widely honoured and followed throughout the whole Christian world as well. Among its later and simpler traditions, that of Folk-song, for every country and language, indeed every region and dialect, is an inestimable heritage as for instance in Scotland, with its triple abundance, Lowland, Highland and Hebridian; albeit not yet sufficiently developed to art-music, and so in danger of replacement by the feeble sentiment and potent vulgarity of the lower class music halls of the great cities. Even from these however, a great voice at times emerges: and, even with all drawbacks, can stir and charm great audiences over the world, and so "make those love Scotland who did not". Jewish players, singers and actors however are far more numerous everywhere, and far oftener reach the high levels of excellence - though alas, accepting the lower levels too often also. But just as the Hebrew University is destined increasingly to Justify that good-will of the Gentile learned world which has so lately been expressed towards its beginnings, by sending out in all directions its freshening streams of thought, so why may not a correspondingly developed center of true and vital musical and dramatic education? And this for the (necessarily far wider) public beyond that of higher education: since for one who can understand Eistein's mathematics there are tens of thousands who can enjoy violin and yet more the living voice. And towards abating, even overpowering the lamentable spirit of

Anti-Semitism. What nobler, or more potent reply than this, of awakening the nobler element which are latent even in peoples otherwise unfriendly? All ambassadors towards better understanding through wider appreciation have been too few in the harsh age, and too incompletely successful, yet the writer in reviewing a long and varied life, can recall none of these to compare in world, influence, and thus in compelling world-respect for Jewish genius, with the dramatic intensity of Bernhardt, the fascinating compositions and performances of Rubinstein and his peers. Is not then the discovery, the education and encouragement of artistic genius - so relatively frequent in Jewish population, and this despite all their past hardships - well worthy of the serious attention and the active encouragement and support of their yet more numerous reflective and practical minds, and at the present period of Zionist initiative especially?

Constructive Arts

Again, at what period of the Jewish past had these such an opportunity. And if this now be missed - as still too much it is being missed at what future period can it be more needed than now? Is not now the time for architecture, when this and other cities are being rapidly built? The time too for furnishing each home with at least some worthy beginnings of that beauty of domestic furnishing, and of household "goods" worthy of that name. which were of old the truest of all forms of saving, the best and most enduring family heritage? Hero the long and unwearied struggles and endeavours of Professor Schatz, and the often admirable products of his 'Bezalel' workshops in Jerusalem, have deserved far more encouragement that they have yet obtained: and it is time that such example and initiative should be given here; and also more widely followed. The establishment of studios, workshops, of exhibitions and even art-shops needs also the arousal of the general community to a fuller demand for their products.

Towards aiding in all this, a Museum and Art Gallery are also needed, and with their widespread and regular utilization by the schools, as well with periodic guidance for adult visitors. The too limited encouragement of recent Art Exhibition in Palestine gives strong evidence of such needs, which it is for the thinking

leaders of the community now to begin providing for. Nor can an Art Museum be limited to objects of Jewish Tradition, any more than can the University to studies purely Hebrew, for as this takes all knowledge for its province, so must a Museum take the best examples of the art of all peoples, and from the Stone Ages until today. Every adequate Art Collection and Museum has thus to afford a broad outline of General Culture History, in which can be traced into rise and growth of each and every significant form and phase of human civilisation.

Science Museum

Yet while we are still but at the beginnings of new age of the Fine Arts, and only emerging from their long eclipse by the ruder mechanism of the Industrial Age, none will dispute that we but more and more intellectually pioneering as pure science must ever do.

Space then for the illustration and exposition of the sciences. Yet how are these sciences actually to be housed, and actively to be presented? And all these with due introductions to essentials of their practical application as well? So is not this also a natural centre for laboratories, and perhaps even for a few technical workshops of the more advanced scientific character on one hand and of technical education on the other.

Further Institutions Needed

The above is already a long list of desiderata, and not easily supplied: so at first sight the reader may feel it sufficiently comprehensive. But if so, he is remaining too much at the traditional masculine point of view, and forgetting the modern and increasing cultural needs of women; and also too much at the stand point of the educated and governing classes of the past, forgetting the corresponding and growing needs of Labour. What then are these two further requirements, even for today, and assuredly increasingly urgent for the future?

Women's College

Women destining themselves for the professions will naturally go to Jerusalem for its medical School, Training College etc. and some also to the Technical College at Haifa, while every efficient

hospital of any size can provide training for sick-nurses.

But though the vast majority of women find their life-course and their educational career in the home, there is perhaps no social invention and advance more definite in the West than their increasing development of educational facilities, preceding (and often even accompanying) their life-settlement in homes of their own. University Extension, Musical and other cultivated interests, are so far very well, but not enough. Hence the rise of Women's Colleges, of a non-academic type, and thus of more living interests. For these first begin with domestic economy and Child-Care, matters now-days becoming seen to demand definite scientific knowledge, with even refinements of corresponding technical skill, both physiological and psychological, than the past had ever dreamed, and even than the vast majority of any modern community have yet adequately come to see. But as disease-rates, and their death-rates are not matters of fate, decided beyond our human range. But (as the Bible indeed at so many points teaches) essentially matters of the private (and the collective) conduct of our human lives. It is time to be realizing that it is the sex especially occupied with conducting this, (and not mainly the especially occupied towards the external work of maintaining or regulating life) which peculiarly holds the well-being and duration of our lives within its hands. Moreover, since one of the most definitely leading groups of science – the Freudians of which the Jewish world is so justly proud, and from whom the is learning – has been proving how significant for the whole of life and its issues towards good or evil above all, is the (hitherto so much ignored) psychology of childhood, it is full time for future mothers to be prepared anew towards understanding. Protecting and guiding this, far more understandingly than heretofore.

But as the children grow up, even to adolescence, (again a decisive period, and for maturity) is not the mother's influence still needed, indeed often more than ever? But if so, how can this be adequate to help or guard them in this fresh and opening world which they are now entering, unless in her own adolescence, she had some preparation towards it too? Here then is a further argument for varied cultural initiation in short for Liberal Education of Women.

But nowadays, and especially since the war, it is soon and felt that this education with its wide and sympathetic understanding, cannot be limited as in the past, to matters of home and family interests, fundamental though these be. It must also extend into the field of active Citizenship, in which women have long and increasingly been proving their efficiency, and justly claiming admission to its responsibilities accordingly. And the closer our study of the "exceptional women" of the past, the more it becomes clear that these were at their best essentially normal women, to whom exceptional opportunity permitted exercise of their natural and traditional aptitudes for coordinating the many tasks and problems which we men see too separately, since in terms of our usual (yet excessively limiting) division of labour be this occupational, professional or administrative.

In short then, such a Women's College begins with domestic Economy and Child-Care - with their physiology and psychology, the maternal and moral hygiene, and all duly applied - it is also every moral sciences and arts accordingly. Writing this passage in Edinburgh. I am forcibly reminded of the growth of its Women's College of this type and practically during the present, century from a small private house than the University itself. And further that the older institution, at first mildly contemptuous, or at least indifferent, has now taken over its woman teacher of citizenship for the Scholl of Social Survey and Service, which her example and success has largely stirred them to establish.

Workers College

Here again University Extension was a helpful contribution newspaper, that Lord Balfour's latest and most important educational utterance, since that of opening the University of Jerusalem, has been that of encouragement to British Universities and labour alike at the present Oxford Conference between the vast and growing "Workers Educational Association" and its teachers, both academic and unattached. For many years past also, that University though in so many ways more conservative and traditional than most has had its "Ruskin College": and now kindred (and yet larger) demands are arising everywhere, throughout the industrial world.

From the standpoint of social science, the evolution of the Arts and over the sciences, is increasingly seen to be fundamentally occupational. Thus it sees their foremost types emerging Lord Kelvin, for instance, a supreme electrician and physicist of the past generation. As essentially the master smith of Glasgow and renewing upon the modern spiral the career of James Watt, the Prometheus of his age, in the same Glasgow Laboratory-Workshop and similarly for the great surgeon of the age, Lord Lister was the superlative barber-surgeon, of (record!) "clean shave" and also essentially for his town patients "the shepherd with his tar-box by his side". For his "antiseptic surgery", is but a refinement upon that old rural practice. This was helped no doubt by Pasteur, who is so rightly remembered at once among the greatest of men of science, and of social benefactors: but again his profound and subtle bio-chemistry, his establishment of bacteriology alike are as directly traceable from occupational origins and experience - hat of his father's tan-yard, and helped also by a mother with a "keen eye for dirt". A re-reading of all such biographies brings out kindred results. Here then a fundamental argument for Workers Colleges.

But there are yet higher arguments: and supremely this that where life is for more work, it lies indeed under "the curse of labour"; but when work is truly for life, then, to that, every man worthy of the name "goes forth rejoicing".

Since too much we live on the first of these two planes the industrial Age is in these times passing unto over-increasing discord and depression: as now so conspicuously in Britain, its pioneer country. It is thus here becoming manifest, to any thoughtful observer, that the euro of these evils is to be sought not merely in maintain any foolishly optimistic hope of return to "business as usual" but in raising the whole industrial world and its processes in detail, as from coal-getting onwards, up to the second plane, on which all work becomes no longer mere drudgery and for pay and play alone, but career in social service. Such progress and renewal and as yet hindered by time persistence of the rival schools of economics, still so persistent in maintaining "class antagonism", as between profits and wages. Yet their economic conflict has to be settled, and matter of life and mind.

Of society and morals; with "production" of more and truer wealth, better adjusted to "consumption", in terms of maintenance and evolution accordingly.

Such then are some of the general grounds which justify the rise of Workers' Colleges; but to these must be added this specific local challenge - Where in the wide world shall we find a more favourable situation for such a much needed Workers College? And this not only for industrial needs and local solutions, but even for value and influence throughout the industrial world beyond - than here in Tel-Aviv? For here (despite all differences, similar to those elsewhere) is as yet the most homogenous of modern cities, united by common origins and sufferings, in common ideals, and towards common endeavor; and thus immeasurably least confused by the medley and babel which divide the modern world elsewhere; which moreover suffers from far more serious class contrasts and antagonisms, mostly international also as well.

Enough however of these reasons for planning - and along with the preceding Culture - Institute, all fully inter-acting - the needed Workers College of Tel-Aviv, and with yes its technical then the present beginnings, excellent though these be and worthy of continuance and development accordingly.

Enough then of argument for each and all these Culture Institutes: what now of their specific Planning?

The conditions for this are clear. First, of all space for each, and as adequate as may be, thus admitting of a reasonable measure of future growth. Secondly, proximity of these Institutes, so as to prevent their mutual forgetfulness, which in time hardens to exclusiveness, and thus to failure of usefulness all round; and just when duly intelligent and understanding and sympathetic co-operation are most required, This condition of proximity, and for mutual interaction, is fundamentally necessary so it involves the selection of the general and particular sites a little beyond the present range of building, and with the least possible interference with parcellations completed, and properties beyond the town as it stands, is obviously needed for the town as it grows: for it will thus be fairly central and most accessible for the whole community. We thus meet that seems the last, yet not less important of these fundamental planning conditions. Yet to

these must be added one point more.

Every city on the past which has adequately risen to the conception of the Culture-Institutions soon and felt appropriate to the expression of its ideals, and of its developing civilization, (Civicsation as that is) has chosen for these purposes the very noblest site within its area, Hence the sublime situation of the Temple of Jerusalem; and so too of every Acropolis through-out the Hellenic world: and so again for the Cathedrals of the Middle Ages, their Town Houses and civic Belfries as well.

Such location was not merely a matter of architecture or esthetics: it carried with it a full yet ever deepening civic sense, an extending and enduring influence throughout the city: and thus in time became its main glory; and this alike for its people and even for humanity beyond - as witness the Temple, and the Acropolis or Cathedral once more.

Hence then the question of location is primarily for Tel-Aviv and not merely for its passing planner. Is this supreme conditional here to be neglected? Or put aside, on this and that ground of difficulty, or minor expediency? Or to be fully considered, boldly decided, seriously undertaken, gradually developed, as also such great works of the past have been, and these also should be?

At this point then, and only now after the whole series of preceding discussions, it becomes the task of the town-planner, as "scout" for the community, to consider all possible sites, and submit his reasoned indication accordingly.

Hence - not without prolonged consideration, and repeated sketch plannings the present plan has been worked out, as on the whole the best solution of all the preceding general conditions and specific requirements.

General Plan in Detail

We may best start upon the main axis of Nordia, so conveniently accessible from all points of the existing town, and also from future quarters to northward; hence in a central and accessible situation for the whole future city.

It is gratifying here also to be in agreement with the

existing town-plan, and to credit its designer with having chosen the best of situation for the future Theatre and Opera House; as is so clearly shown not only by the Open Place indicated on east side of the Sommeil, Road, (a little to northward of the proposed Now Park) but also by the branch from the main Boulevard coming down westwards to though Theatre.

Accepting broadly then this theatre site and Boulevard as outlined, its detailed planning has followed. The Theatre needs enlargement: and the more modern form of auditorium is here indicated, requiring somewhat more space than that given.

On each side of the Theatre Place, along the Sommeil Road, Cares will naturally arise, and conveniently with hotels and boarding houses or homes above. Here a harmonious street design is therefore necessary, symmetrically and appropriately arranged for each side of the main frontage of the Theatre. For this too an island position is necessary for vehicles, with duo entrances and exits.

Next, in Theatre Place, upon its N.E. side, is indicated plan the Conservatorium of Music, with its needed auditorium for concerts. Correspondingly, on S.E. Corner, stands the Institute of Eurythmics with dance and physical culture generally, extending into a large gymnasium. That those two colleges (for such they are mutually complementary, is obvious: as also that they may speedily be of whole day use by students and by schools; and in evenings also, by those occupied throughout the day.

Immediately to east of this latter institute, and with easy access across the road to the Gymnasium, is planned the Workers)

College, with moderate interior court.

Correspondingly to east of Conservatorium (and separated from the Workers College by a moderate portion of the boulevard area) there is planned the Women's College; and this on an appreciably larger scale, as befits its probably greater number of students, (and possible need also of housing some of those coming from the country).

Finally for this area, the group is filled up upon its eastward side by the public Library. To this, for reasons given above, the largest site is allocated; though of course (and in

this case especially), it will suffice for a time to build the central portion only.

To aid understanding of this comprehensive scheme, (which is a little difficult upon this small scale, while time has not permitted drawing it out upon a larger) I have been fortunate in obtaining the assistance of Mr. Moed, Architect, Haifa, who has sketched from the present plan its main elevations. These are accordingly submitted herewith; and will be found to make the whole scheme fairly clear, and enable its unity and harmony to be realized.

Museums and Galleries

Without entering into details enough here to recognize that education of all levels, from childhood to maturity, advances with growing appreciation and comprehension of Humanity and of Nature. Without such initiation (and into these inter-relations of man with Nature, and Nature with Man, which are the very life of both) education sinks into the mere verbalisms and pecuniarisms never more common than in our own day. Hence largely those recurrent declines, even of great civilisations, still menacing us (as today in Britain): in which even agriculture and industry decay, with crafts and arts, with history and literature. Philosophy and religion. Indeed the much boasted sciences, in most minds of the Universities, become submerged in specialisms and their details; and so lose sight of the all-pervading, all enlisting Unity. Clearly realized then, is not once more the high function of a renewing Zionism, to repeat her ancient message upon our modern spiral; amidst the dispersive thought now so prevalent throughout the entire world, (and thus, as of old, so readily deteriorating Israel also) and to recall the ancient conception of Unity throughout the whole Universe? That the Hebrew University is called to such high effort is its prime reason of existence: and if so, it needs support; and these institutions here have to be conceived and developed in the same spirit. And just as the ancient history of Israel needs the understanding of surrounding peoples and their civilisations (first of Egyptian, Mesopotamian etc. and then Greek Roman etc.) so for the Diaspora, in its ever widening relations, as through Europe and now to the whole

world, In short, like a Library, a Museum has to be broadly comprehensive, and throughout all fields.

Planning then, involves provision not only for many and orderly galleries, but space for their extension, as required though a first block may for a time suffice for the beginnings if possible, and also for the studios and workshops of an Arts Crafts School. That this whole future building is not so vast after all, in proportion to modern requirements, may be evidenced from the fact that the collections of the writer's large "Cities and Town Planning Exhibition" alone could use half its wall space.

Situation of this Building

Here there can be no mistake as to this Acropolis-site highest in Tel-Aviv, and fortunately not yet parcellated: while its accesses are amply adequate yet with due freedom from dust and noise.

Water Tower

In course of this planning, however, a sudden (and at first light alarming) difficulty arose – that of the need of a Water Tower upon this relatively lofty site. Discussion with the responsible engineers has happily proved reassuring, and even transformed this difficulty into an opportunity. For given the succession of three superposed water-tanks for various levels is it possible at moderate expense to utilize the uppermost level for the erection of an Outlook Turret, and the intermediate ones for Museum Rooms, connected with it. So in this way, the visitor may begin at the top, with direct observation of the city, and in its regional setting, between inland country and sea; and thence descend to a room appropriately containing and extending those beginnings of a Museum of Tel-Aviv which are already housed in the adjacent smaller Water Tower. In the room below this again may appropriately be housed the wider Regional Collection: and from this we may enter the Museum itself, and appropriately by its beginning of a Palestine Museum. This again would naturally communicate with the nearer associated galleries as from Egyptian and Mesopotamian to Greek and Roman; and so on to modern times, and their best endeavours.

Science Museum

In this field great progress has been made in recent years and not only in great collections: but ranging from the modest yet representative beginning of the Edinburgh Outlook Tower to the "Urania Museum" of Berlin, and from this again to the great Science Museum of Munich. That in this way the essential ideas in orderly ways, and towards general unity, need not here be argued at length: the affirmation must here suffice, as justifiable, and in detail when needed by this growing city; since for education on all levels, from juvenile to most mature.

Here some laboratory accommodation may with advantage also be considered, and the provision of a fair-sized lecture room as well.

The situation of this building is again indicated by the natural contours, as crowning the other hill rising to north of the lower-lying section of Boulevard descending eastwards from the moderate rise to east of the Library. In this way in fact we obtain the rare effect of a double Acropolis group, well nigh as was the glory of Selinonte of old.

Completion of Scheme

Viewed on plan, the separation of these two largest buildings, upon their confronting heights, from the previous group from Theatre to Library, may at first sight appear unsatisfactory with its well-marked contours, and imagine these buildings rising upon them. Standing (say) at the position of the Theatre or the Library, and looking S.E. towards the water tower and the whole mass will be realized. Yet – alike (1) to abate the dangers of building up between Library and Water Tower (2) to compose a complete architectural unity and above all (3) to meet immediately approaching public needs – a Kindergarten and a Primary School larger respectively.

Looking next eastwards from the Library or Theatre site, and thus towards the future Science Museum, a difficulty will be realized; viz. that the edge of the plateau on which this stands comes so near to the observer that this Museum would not be seen from this point, (though fully from other points and greater distances). However, this difficulty is again an opportunity: for what better fresh situation can we find or imagine, in all Tel-Aviv

than this portion of the plateau for the large High School (the new Gymnasium) for which serious need is already being felt.

Such thorough correspondence of educational and aesthetic design is not simply encouraging for both. It is also an example of that essential and normal unity. Through Nature and human affairs alike, which is at once the ancient faith of Israel and the fundamental and inspiring conception of modern science, and of the arts at their best.

General View of Whole Scheme

With both these conceptions in mind this whole scheme building to which the Town's offices have lately been removed, pending the erection of the new Town Hall. Or, conveniently also and without entering this building; viz from this fine gill-top view-point marked out for public use on new plan of Sommeil Park at its west extremity, (plot marked 54 on the old Town Plan). From this side then, we look eastwards, over the new Park, and on the left to the future Gymnasium, and Science Museum beyond both occupying the more northerly plateau, in due Acropolis fashion. Next, a little to the right, has to be imagined the Water Tower, as Outlook Tower of the larger Museum galleries of this somewhat higher acropolis site.

If this whole view be realized (as is easy by help of the new Town Plan, or conveniently a partial tracing from it) there is no fear but that the spectator will agree that good use is here being made of these fine situations. And further, affords no other group of possible sites equally good for these needed uses here proposed.

Disadvantage of Dispersal of Culture Institutes

It has too often been the case, in the history of cities that their Culture Institutes have postponed until adequate sites for them are no longer obtainable. Modern cities (British and American especially) are thus discovering their heeds when too late adequately to supply them, save at great expense, and then in too scattered locations: witness in this respect (for bent known example) the disadvantages of London as compared with Paris (yet the considerable endeavours of the farmer, as at South Kensington).

Hence the necessity of comprehensive planning for Tel-Aviv,

and of timely action to preserve the needed sites in due proximity, difficult and costly though full acquirement may be.

Practical Difficulties of Realisation of Preceding Schemes

These difficulties will readily be seen, and need to be definitely faced and grappled with. The primary difficulty is not that of cost of buildings, which can be erected as means allow, and all the larger ones, (save indeed the Opera House) by instalment. Hence as suggestion towards this policy, a small plan is herewith submitted, showing these larger buildings in progress, yet in use so far as they go, meanwhile.

Site Areas

The essential problem then, is the retention of the necessary Site-Area, from parcellation and building. And there is no denying that this required area, when measured out, amounts to many more donums than could be at present purchased from the ordinary funds of the Corporation.

This total measurement must be left for exactitude to the Technical Department: but for the present discussion, it may be roughly taken as not less than forty donums! An alarming area!

Note however first of all that a not inconsiderable Theatre and boulevard space has been reserved from the first; of which a considerable area has been included within the proposed groups of buildings: hence to define this present new and much larger demand for public reservations, this previous area may fairly be deducted, (though of course still needing acquirement) it will also be noted that the Kindergarten, the School am Gymnasium, with their playground areas, are ordinary necessities for the growing town, and are merely located within this group of Culture Institution for their advantage, and not as essential to them whence another fair deduction. Thirdly, these institutes, replace, take in, and cover what was a considerable area of streets as well as of Boulevard, show on previous Plans: so here again another deduction, both for their area and for expense of construction accordingly. (Of course this needs calculated comparison with the modifications of adjacent street plans which the buildings of the present scheme involve).

Fourthly, the present scheme obviously tends to enhance surrounding land and property values. And this alike in itself, and as attractive to the erection of residential home of much more value than is usual so far in this neighbourhood: and from this municipal taxation will obtain its due return. The suggested Hotels and Cafes adjacent to the Theatre might naturally soon follow its erection, and so afford another illustration of this. Yet other points might here be raised. But it has also to be frankly admitted that all such argument do not meet the immediate difficulty of reserving so large all area, and for future uses not directly remunerative. Yet to this the answer is now easy.

Before the Town Planning period, such difficulties often seemed impassable, and even proved so. But nowadays, given a Town Plan with its needed developments for its city's future, duly approved by the Central Authorities, the acquirement of the land is no longer urgent. For while its proprietors of course go on using their property as before, they are precluded from disposing it to new constructive and permanent uses other than those shown upon the Town Plan, once settled and approval.

In a word then, the difficulties of acquisition are thus postponed: and though delays may arise, any excessive rise in prices is checked by the exclusion of competitive purchasers altogether. Moreover, there are signs that the present boom in land prices may have its abatement (and even judicious ways of helping them to fall).

Further Survey of Street Areas. In this connection may here be considered, (and as soon as may be, also computed) the areas devoted to streets - (a) throughout the old plan and (b) throughout the present new one. A comparison is thus possible, between these two systems of town-planning: and this needs to be done in two ways, viz: (a) for actual total areas or these two plans; (b) in percentage of road space in each of these plans, to the said total areas respectively. Again, the value of street areas, and their expense of construction, (taken conveniently at the same rates, since most of the roads of the existing town have still to be made) have correspondingly to be computed. Thus, and thus only, the Town Planning committee (and the Corporation when it reports) will have clear figures before it, toward an

understanding provision of the whole question. Without venturing to predict, in any detail, as to land economies from the new Town Plan, in which the main-ways are largely broadened beyond those of its predecessor, it may reasonably be anticipated that the moderation of breadth of the Home-Ways as shown in new plan (and recommended to be not more than 8m, in width am wherever possible only 7m - of course with due keeping back of house frontages) will be found not only to compensate for the extra breadth given to Main - Ways, but to show that substantial economies - in total area, in cost of land, and in construction, will be shown for this new plan, as compared with its predecessor.

In making this computation of street areas, the interior areas of House blocked devoted to gardens, tennis courts etc. should of course be kept clearly apart. For these will be found to create an appreciable enhancement of property values and rentals throughout the whole areas thus improved; and thus with corresponding yield from taxation accordingly.

Conclusion. The demands of this chapter, as indeed of this whole report and Town Plan, are undeniably large. But so it is and must be wherever Town Planning is undertaken; and after all, the amounts involved can only be alarming when viewed en bloc, as if for the moment But thus they are not properly understood, since but foresighted preparation, of a policy of gradual execution, during such coming years as may be required, and with increasing population and resources in meeting them. And the more the present scheme is studied and considered, the more it will be seen to be conceived and detailed with economy throughout. And true economy, that for which, after Israel land, not a little from its teaching) Scotland and New England have often also been derided, yet also appreciate (since in the long run rewarded), the true economy, defined by Emersonians that of saving upon the lower planes of life to spend on higher planes.

The Adaptive City: The Role of Geddes' Vision in the Organic Evolution of Tel-Aviv 1925-2003¹

Jeremie Hoffmann

"...a system of life adaptation." (Geddes, 1925)

Beyond its role in designing the building foundations of the White City of Tel Aviv, Patrick Geddes' (1854-1932) vision for the city played a central role in determining the nature of the city's late change processes and its adaptation to the new political-social-economic conditions.

This article reviews the urban processes of Tel Aviv's city center from its early days to its declaration as a World Cultural Heritage Site by UNESCO in 2003. Within this time frame Tel Aviv experienced massive changes which were derived from demographic, political and cultural transformations, including significant regional events, such as wars, religious and national conflicts, immigration, as well as a fundamental change in the perception of community.

The current examination is based on an analysis of physical changes of the city describing the architectural evolution of the buildings, both new and existing, and the variability of the ever-evolving living built tissue referred to as Geddes' Tissue. The area examined in this research refers to the formal boundaries of the UNESCO Declaration of Tel Aviv as a World Cultural Heritage Site (2003), with the addition of the urban tissue spreading between Ben Gurion Blvd. and the Yarkon River in the north.² The study of the changes in this area is based on database analysis of approximately 900 town plans drawn up in 1930-2003; most were prepared by urban planning bodies and while only a few obtained a formal approval, the majority were built just the same, as will be discussed below. The classification and analysis method were based on a chronological analysis comparing the contexts of the changes to Geddes' plan from 1925 (Hoffmann, 2014).

Two more sources served in the examination of urban change in Tel Aviv: (1) The decision-making processes of local political parties as reflected in official protocols found in the Municipal Archives and a textual analysis of the

1. First published in French: Hoffmann, J. 'Patrick Geddes en heritage', *Espaces et sociétés* 167 (No 4) 2016, edition *eres*, p.63.

2. Decision 27COM 8C.23 of the General Assembly of World Heritage in Paris, July 5, 2003

municipal publication Yedioth Tel Aviv Paper. (2) The changing perceptions of the townspeople examined through an analysis of the city's representation - "Any evidence of a representation is in itself a structured product of a process in which the researcher should address it" (Gerard Monnier in: Andrieux and Chevallier, 2005) - in media, including cinema, journalism and children's literature.

Background (1909-1925)

Tel Aviv was born to be a city of national refuge, a secular alternative to the messianic idea of the return to Jerusalem. Theodor Herzl, the visionary of Jewish city life, described in his book *Altneuland* (Old-New Land) a conceptual city that serves a modern version of resurrection, realized by a man who takes his fate in his own hands instead of waiting for divine revolutionary processes (Herzl, 1917). The Ottoman law in Palestine enabled the co-existence of the Christian and the Muslim Arab communities alongside smaller communities like the German settlers in Saron and Valhalla, the Mormon-Christian American community who founded the American colony, and a small Jewish Community. The latter initially resided in the area of Jaffa and later expanded into Jewish neighborhoods built north of Jaffa and east of the Arab neighborhood of Menashiya: Neve Tzedek (1887), Neve Shalom (1890), Yefe Nof (1897) and additional five smaller neighborhoods in their vicinity.

The acquisition of the Achuzat Bait Complex land in 1908 was the next step in the development and growth of the Jewish minority, originally based in the Arab city of Jaffa and facing restrictions imposed by the Ottoman Government and its successor, the British Mandate. These restrictions, designed to prevent the development of mechanisms allowing for the establishment of an independent community, forced the founders of the new city declared in 1909 to implement a conscious, systematic process of expansion and disengagement based on deliberate steps. The idea of expanding construction and moving beyond the walls was infused with a vision of creating a new environment for the 'autonomous Jewish' community (Shavit and Biger, 2001) characterized by a national ideological nature. David Levontin, head of the APC (Anglo Palestine Company, founded in July 1903 in Jaffa), wrote about the need to build modern Jewish neighborhoods resembling the German suburbs and serving as the vision for Tel Aviv (there.). The continuous expansion of construction northward throughout the next decade and the

shortage of available lands have resulted in a patched city, based on local planning zones defined by the availability of the lands purchased for their immediate marketing. This spatial transformation that took place between 1910 to 1920, dissolved the homogeneous outline of a continuum, creating a series of 'Shtetls', neighborhoods or construction zones with an intrinsically different urban identity. The construction was done in a new architectural style, also known as the ornamental eclectic style, which borrowed from various cultural sources. Another feature that emphasized the difference from the Arab building style, were the tiled roofs dubbed the "Red City" (Metzger-Szmuk, 2004). All of these, followed by the announcement of the autonomous status (Township) of the city of Tel Aviv in June 1921 and highlighted by constant immigration, have created a need to formulate a vision for a long-term development planning (Shavit and Biger 2001).

"Adaptation" as a fundamental Concept in Geddes' Theory

Patrick Geddes was one of the most influential urban planners at the beginning of the twentieth century. He envisaged the birth and transformation of the city as a biological and sociological macro-process of human society. Two ideas had greatly influenced Geddes, a well-educated man with various interests, and his organic approach to urbanism: the first was Charles Darwin's *The Origin of the Species* (1859); Geddes was only five years old in the time of publication, but the question of the nature of evolution remained a key element in his research throughout his lifetime. The second was his training as a biologist, educated at H. Huxley in London, where he studied the existence of chlorophyll in plants and animals (Welter, 2002). Geddes continued his studies at the Sorbonne in Paris, where he discovered the theories of sociologist Le Play who explored the relationships between the individual, family, workplace and the environment, followed by his ongoing correspondence with Bergson. It was this that brought Geddes to think about the relationship between organisms and their environment as a necessary tool for understanding evolutionary processes. His belief in the ability to develop good instincts through self-awareness led to his wide perspective on city planning, shown in his 1925 report on Tel Aviv, and to the idea of the Notation of Life as its basic model. Geddes realized that unlike animals and plants, people are organic creatures who are capable of changing their environment to suit their needs (there, page 10). This recognition had many implications on his

future path. On the one hand, an historic investigation was required in order to examine the settlement processes from the perspective of physical and sociological adaptive analyses; on the other hand, relying on the foundation of this recognition, an attempt was made to outline innovative principles of the required relationship between humans and their environment in general and the city in particular.

Change processes is a basic concept in biological evolution. The essence of this concept is the transformation of an object from one state to another, which is the foundation of adaptation. Or as this principle was famously articulated by Darwin: “it is not the strongest of the species that survives, nor is it the most intelligent that survives, but the ones who best react to change” (Darwin, 1859). Herbert Spencer (1820-1903) elaborated on this distinction, suggesting that societies undergo evolution in the same way that species do (Spencer, 1864). Spencer, who studied psychological aspects in the spirit of Darwin’s works, asserted that natural selection processes also influence human social and cultural evolution. Neoevolutionism expands the anthropological observation through a critical approach on the theory of evolution, where its foundation lies in the assumption that evolution is not a deterministic process, but rather a process based on choices and decision-making progressions. In his city theory, Geddes successfully implemented the specific elements of the environmental, economic, technological, medical and educational factors to define the new residential environment of Tel Aviv. We can say then, that Geddes had predicted and understood the magnitude that cultural elements can have on urban evolution processes.

Geddes Report - Tel Aviv (1925)

In 1924, under British Mandate, the technical department of the Tel Aviv Municipality led by Sheinfeld, drafted extensive plans in an attempt to include the entire textures of the city under a single planning system (Weill-Rochant, 2008). Geddes first visited Tel Aviv in 1919 and presented to a group of young people a potential outline for Tel Aviv on papers “on the floor”. In 1920, during his second visit to Israel, the High Commissioner asked him to draw plans for the city of Jaffa and its surroundings and to include “Tel-Aviv as well, of course.” (there). In 1925, on his third and last visit, 71-year-old Geddes commenced the work.

Geddes spent several months working on the plan and writing his

report, leaving Tel Aviv with a partial report, the rest of which was sent from Scotland in October 1925. Meir Dizengoff, then mayor of Tel Aviv, gave “his full support to Geddes, and his plan, during and after the work” (there). The report referred to the original 660 acres, out of which only 40% (272 acres) were owned by Jews (Shavit and Bigger, 2001). In the introduction to the Hebrew translation of the Geddes report from 1993, architect Eliezer Frankel wrote: “The city is first and foremost a product of human society and should be treated as a living organism”. Despite the fact that the specifics of his design included clear instructions, Geddes elaborated on their individual social-planning implications and effects on the community: street hierarchy for easy accessibility to land, quality low-leveled construction to reduce the percentage of infant mortality, inner gardens for multiple family habits and increasing children’s well-being and health. The link between community development and planning the basic urban core, known as the ‘Geddes Block,’ derived from the deep reciprocal relationship between people and their environment. Geddes saw the sequence of his specific instructions as a mechanism to enable a healthier lifestyle. He was so specific, that he addressed issues of education to ensure the process of adapting the community’s habits to the new proposed environment. This is, for example, how Geddes’ report addressed the concern of children stealing fruits from trees planted in public spaces: “the exaggerated fear of damages that could be caused by fruit-loving children should be resolved not by “starving them” with prohibitions etc., but rather with extensive and generous crops, to satisfy this natural need” (chapter 17, clause b). The garden takes on a new meaning by becoming a natural growing field for many social activities, including strolls, meetings, play, health and mortality prevention. The garden as a planning object gained a greater emphasis in the development of the phenomenon in many scales: front, side, back and community gardens; gardening along the “roses path”; school-yard garden; city parks with various uses; botanical and university gardens; and avenue gardens were all detailed and specified, including instructions as to which and where plants should be planted. The existence and maintenance of all the green areas were ensured by detailed building instructions - precise measurements of the distance between buildings, the exact borders of the lots, the width of each path type, the number of trees in front gardens, the fencing of different garden types - and specific instructions underlining the importance of establishing landscapers’ guilds (for both young and old), as well as instructions regarding plantings by youth at schools, seedlings supply and the likes.

Implementation of the Geddes plan and the establishment of a modern city (1926 -1948)

The main chapter of Tel Aviv's building process began on April 6, 1926, when the City Council approved the innovative Geddes plan in an almost laconically fashion ("the whole proposal is approved", there). The plan was implemented without the formal approval of a detailed plan, neither by the municipal authority nor by the central mandatory government. Therefore, it essentially functioned as a strategic plan throughout the whole period of its implementation, and this might be one of the reasons for its success. In fact, the city center was not built according to the original Geddes plan since it did not include information about the actual construction to be executed. In spite of the detailed specifications mentioned above, there were no concrete planning guidelines, only general instructions and guidelines.

The allegations of the purported disappearance of the original Geddes Plan (Weill-Rochant, 2008), adopted by the city's historians in recent decades, may be unfounded. This assumption is based on two reasons: there is no evidence of such a plan ever existing beyond the written report and the drawing on its cover; and the internal logic of the report. It seems that the absence of a concrete and detailed plan enabled its principles to develop and materialize it in the hands of city planners, who embraced the ideas and translated them into detailed plans depending on the terrain variables and geopolitical constraints. Therefore, the report can be read as an abstract blueprint of traffic route lines, which leaves plenty of room for interpretation. This might be its greatest power. The plan has no reference of any kind to the nature of the streets it describes, the shape of the "urban Acropolis" and its exact location and functions, the location of municipal administrative system and its operation, or transportation infrastructures such as railways, mass transit systems and more.

Two immediate actions were taken following Geddes' departure from Tel Aviv in July of 1925: a detailed parceling plan for the northern part of the city, built by the local authority engineer Herzl Frankel (Weill-Rochant, 2008/1, p.103), and the preparation of a proposed plan for statutory approval, including a completely new map and articles of association with detailed instructions regarding the nature of the construction (Plan 1927). The economic recovery of the early 1930s brought with it a momentum of renewed construction and unprecedented growth. The increased anti-Semitism in Eastern Europe, the rise of the Nazi regime in Germany and

the growing number of legal immigration permits granted by the new High Commissioner Arthur Wauchope, who took office in 1931, brought forth a new wave of Jewish immigrants called the Fifth Aliyah. From 1932 to 1948, the city's population grew from 52,000 to 150,000 residents (Biger in: Metzger-Szmuk, 1994). The city architects had an opportunity to turn Tel Aviv into a unique architectural laboratory and to implement these ideas in a local social-national context (Hoffmann, 2009). The special conditions in Palestine dictated the creation of a new local architectural language addressing both the challenging climatic conditions of heat, high humidity and salinity, as well as the social aspects based on the ideas of the "Urban Kibbutz" (there). During this period, approximately 3,000 buildings were built in the local international style, dubbed the Bauhaus style. It featured a combination of climatically adapted elements, such as balconies in various configurations, vertical ribbon windows, a pillars level, cornices for shading, flat roofs and other characteristics. Geddes' ideas of pocket gardens were mainly materialized in the northern part of the city while adapting the schematic geometric outline to the terrain. This design depended on the pace and timing of land purchases, the layout of the farmland plots and the roads in the area. The existence of the basic cell as a fundamental design element, a conceptual urban block unit that had a clear rigid internal organization but was flexible in its methods of actual implementation, enabled the process of assembling the blocks into a sequence of a homogeneous fabric.

The accomplished city: changes after the Declaration of Independence (1948-1977)

By the end of the British Mandate in 1947, shortly before Israel became a sovereign state, the image and thus status of Tel Aviv began to change - as coined by David Ben-Gurion, the first prime minister: "From a state-city to a city in the state" (Shavit and Bigger, 2001, p 13-14). Ben-Gurion, who advocated settling in the periphery as a national strategy - 'conquest of the wildernesses' - viewed the rapid growth of Tel Aviv during the Fifth Aliyah as an expression of a national problem, as it attracted about a fifth of the nation's population. However, Ben-Gurion had also decided to concentrate the main governing institutions of the state in Tel Aviv, as the UN Resolution 181 (November 29, 1947) was not clear on the status of Jerusalem. In many aspects, Tel Aviv became a de facto capital. In the late 1940s, the rhetoric

relating to the city was changing. This change reflected the transition from a construction process, a mere potential: “A remarkable phenomenon ... This is the only place, where you can see Jews working by the sweat of their brows, building apartment houses and magnificent public buildings, paving roads, driving trains and even cleaning the streets ...” (Joseph B. Broadhurst, from *Wayne Street to Jerusalem, 1936: Shavit and Bigger 2001*), to a completed act: the city exists and is present, reflecting the successful fulfillment of the Zionist narrative.

The aftermath of WWII brought forth a new urban concept. The city as a set of systematic organizational structure, deviating from construction and building plans and activated by the concept of infrastructure systems scaled beyond the city limits. The large-scale master plans drawn within a 20-year process, were only partially realized. These plans included complex on- and underground and even marine transportation systems, high-rise office buildings in the city center and other innovations. In January 1951, the municipality approached Aaron Horowitz, chief city planner of Cleveland, Ohio, with a proposal to prepare a new master plan for the city. In July 1953, the Horowitz report was submitted to the municipality and a printed edition was distributed to city residents as a gift. The plan included a new strategic concept and offered condensing the city center with high-rise construction, demolition of existing neighborhoods and the parallel development of urban periphery areas with regional centers. The annexation of Jaffa in 1949 further increased the need to provide broad urban solutions. Horowitz created a classic American design scheme, based on a downtown city center³. This urban approach represented an opposite concept to Geddes’ principle of the expanding grid, which is boundless by definition but adapted to the actual environmental conditions of the northern dunes of Jaffa. In his report, Geddes specified the role of the borders of the plan - the Yarkon River in the north, the Musrara River bed in the east and the Mediterranean Sea in the west - as medicinal and recreational areas. This definition reinforced the perception of greenery, vegetation and trees inherently integrated into the design and aiming at creating a healthy environment for the local community. The postwar global construction momentum and the need to absorb thousands of refugees did not skip Tel Aviv, where it took on a new style. The early naïve white modernism was replaced with exposed concrete, expressing functional, industrialized and

³ In his Letter to Israel Rokach, Minister of Internal Affairs and former mayor of Tel Aviv, and mayor Chaim Levanon, dated September 7, 1953, he described it as a “plan that could fit any city in the world”. Source: Tel Aviv municipal archive.

cheaper architecture. However, the new commonly used expression of large residential and public structures received a unique interpretation of the new urban structure typology in the northern tissue of Geddes. Bauhaus buildings were replaced with exposed blocks buildings influenced by the Brazilian School architects (Hoffmann 2014, p 749) and the Brutalist architecture (there) of Le Corbusier in France and Alison and Peter Smithson in England. The local Brutalist interpretation formed a new fusion of typical Geddesian standards with the typology components of long structures with ventilated facades, concrete latticework built from precast structures, moving wooden shutters and creative solutions in the spirit of *Bris Soleil*. Within a decade (until 1958), this unique combination facilitated the expansion of the Geddes’ plan north of Ben Gurion Blvd. up to the banks of the Yarkon River, providing a fast, high-quality residential solution. The implementation of the plan was made possible by approving hundreds of point-specific Urban Building Plans⁴, all precisely matching the principles of Geddes, including dozens of public buildings and pocket gardens integrated into the program: schools, kindergartens, clinics, synagogues, etc. The need for increased density in the city center resulted in the approval of urban plans allowing additional floors in existing buildings, construction on rooftops and closing balconies with plastic shutters to create additional rooms in residential units. Most high-rises were built in lots evacuated from their former Arab inhabitants during the War of Independence and skyscrapers plans were expedited in favor of constructing government and authorities buildings (Margalit, 2007). While this haphazard, improvised construction that covered the entire city created an aesthetic nuisance, it was a unique approach that enabled a de facto continuation of the existing building and social fabric without broad spatial alterations caused by demolishing existing urban fabrics and erecting huge housing projects, as was done in large European cities.

Cultural liberalization and the rediscovery of the city (1977-2003)

The series of events that started with the Six Day War (1967), continued with the Yom Kippur War (1973) and culminated in the rise to power of the Likud party (1977) had spatial, political and social consequences that accelerated the transformation of Israel from a socialist society based on adopting the

⁴ Urban Building Plan – procedure of Permit Application for building rights additions by the state according to the mandatory planning system.

collective Zionist narrative to a capitalist-individualistic society with a distinct American influence (Gitzin-Adiram, Ella, Handel, 2013).

These changes had a direct effect on the status of the city center, which started thinning out. Shlomo Lahat (1927-2014), mayor of Tel Aviv in 1974-1993, led the trend of expanding services to outer neighborhoods and rehabilitating disadvantaged populations, among other things by establishing the Tel Aviv Development Foundation, specializing in fundraising abroad for setting up community institutions in the peripheral neighborhoods. The acceleration of the suburbanization processes and the massive construction of roads have practically drained the city center in favor of the bourgeois dream of a private house with a garden (Metrani, 2008). The vacating city turned into a cultural vacuum quickly filled with a new kind of urban culture; its subversive, alternative nature that shunned regional political issues earned it the name The Bubble. The process of rediscovering the city center began with preliminary reports about the quality of its outstanding architecture. In 1984, the Tel Aviv Museum of Art held an exhibition titled The White City, featuring prominent modern architecture found in three cities in Israel, (Levine, 1984). A decade later, an international architecture conference was held in Tel Aviv, discussing for the very first time the Bauhaus style of the city center. The new plans for the city center, derived from this newly found appreciation, also incorporated a long list of planning and construction regulations. While strengthening the historic fabric – and for the first time requiring building preservation – these changes have also created a fertile ground for additions and alterations to many of those structures, enabling and implementing various adjustments. The classic Geddesian urban block was once again transformed, reinvented and re-characterized. The reconstruction of the Lev-HaIr (The heart of the city) complex in the center of the White City generated a demographic shift and reversed population movement back into the city. Within two decades, the number of residents increased by approximately 16%:⁵ from 327,300 inhabitants in 1983, at its lowest point, to about 375,000 residents in 2003. Some parts of the city center, such as the business area in the western section of Rothschild Boulevard, expanded the process of creating a new textural typology by combining lower historical buildings and high towers. The urban block was once again reinvented and redefined as an interpretation or a genetic mutation of Geddes' original plan. The process of rediscovering the values of urban modernism reached its pinnacle in July 2003, with UNESCO declaration of the White City of Tel Aviv as a World Cultural Heritage site.

⁵ According to the City Data Report, the Urban Unit of Strategic Planning, 2014.

Summary: The organic city

Tel Aviv serves as an example of how a 20th century city evolves based on modern ideas. Technological innovation, independence, social equality and quality of life are key values in the planning and evolution of Tel Aviv based on the vision of Geddes. Tel Aviv joins other modern cities – like Brasília in Brazil, Le Havre in France, and Chandigarh in India⁶ - who represent similar ideas and ideologies implemented in new forms of urban fabrics via innovative planning and avant-garde architecture.

As described above, the city's transformation throughout its existence enabled its adaptation to the changing environmental conditions. This adaptation took place while consistently maintaining its design principles and unique scale, preserving the community frames and ensuring their continuity. The existence of a core, the basic design cell, is a fundamental condition in Geddes' theory and its interpretations within the city plan. In this regard, the Geddesian block behaved according to his theoretical research model, which sees the single-cell unit as the basic ingredient of any development and adaptation to ever-changing conditions. This nucleus, carefully designed in the planning of the White City tissue, supported the continued existence of the healthy community it encompasses. The Geddes plan was successfully implemented, adopted and adapted due to its ability to obtain an irregular scale of resolution in its human approach. In his 1925 report, Geddes describes an imaginary dialogue with a resident applying for a permit to increase the allotment of building rights in his lot; Geddes denies his request, claiming it would result in an increased infant mortality that might reach the levels of Mumbai, India (then at 66.6%, the highest in the world). Geddes also denied the request to build additional floors, since "a mother carrying bags of groceries and children cannot climb a large number of steps" (p 14). The two arguments, described as examples, indicate that Geddes saw a direct link between the specifications of the proposed design, such as a garden area of two-thirds of the lot, and the health of the community and the ability of its members to exist and sustain a quality lifestyle. Thus, Geddes was not an aesthete or a designer; he was engaged in the field of subsistence and comfort. In fact, Geddes translated the Notation of Life – a conceptual research model linking the basic cells or a single cell to evolution – as a macro

⁶ Brasília, designed by Lucio Costa and Oscar Niemeyer, was the first modern city declared by UNESCO as a World Cultural Heritage Site in 1968. Le Havre, designed by August Perret, was declared in 2005, two years after Tel Aviv. Berlin was added to the list in 2009 with workers' neighborhoods designed by Bruno Taut and others and Chandigarh is in a process of recognition as a part of Le Corbusier's serial nomination. Chandigarh in 2016.

process. In this way, Geddes delivered on his promise to create a flexible and variable space with high substantial characteristics.

With ongoing transitions of its historiography, the city faced complex challenges: the need for speedy construction adapted to the extreme climatic conditions; territorial constraints regarding land ownership, which required a higher level of geometrical flexibility of the Geddes blocks; immigration; wars; demand for massive high construction in the center and destruction of the existing urban fabric; the mass exodus from the city in favor of an alternative capitalist lifestyle; the rediscovery of the city that led to the need to crowd the tissue while preserving the historical and implementing existing building rights granted in accordance with the law; and more. All these issues jeopardized the homogeneous integrity of the Geddes tissue, the social-cultural components and the status of Tel Aviv as a cultural capital. They also challenged the Geddesian idea and the potential implementation of his theoretical promises to create a city based on the observation that unlike plants, humans can change their surroundings to match their needs; in the words of Mumford: "Synthesis is not the goal, a developed organism is a product of formative and constructive changes" (Welter, 2002). The city is not a preset concept reaching its ideal form at a certain point and maintaining it forever, but rather a mechanism that constantly fluctuates and changes. Geddes' theory of those processes functioned as an idea that leads the decision-making process, a concept known in science as the Control Parameter (Portugali, 2011). This parameter allows the complex urban system to switch between situations of order and disorder and finally stabilize back into a new order. Any new urban arrangement was made possible thanks to a social consensus about the common rules of response to new needs: closing balconies, adopting a new building style, conservation. Consensus is maintained by the strong influence of one of the design variables as discussed above; either by the general public through creating an image of a new city or by the professional planning entities through architectural and urban planning regulations or through the political mechanism in the procedures of strategic decisions regarding the city's development. A review of the 90-year-old reports indicates that the cause affecting the processes varies from one period to another and often changes. The lack of one constant dominant parameter leading the processes can possibly be one of the elements that ensure the stabilization of the municipal system over time; in each period studied, there was a distinct correlation between the intensity of the distress faced by the city and the clear physical change or process transformation it experienced.

The preservation of the White City in the last decade may seem contrary to the city's development; as a certain 'freeze' that turns it from an entity that sustains itself and its needs into an entity that represents itself and is aware of its own self-image. It may even seem to contradict Geddes' view. However, although Geddes' vision does not explicitly reference a city relating to itself, Geddes was one of the first to support preservation. He regarded architecture as refined History (Welter, 2002), an excellent tool for reading the existing culture in a given environment. Geddes maintained that the historical architectural object in a city enhances the location's genius loci and distinctive urban character, creating a new quality. The additions to historical buildings in the White City are a global phenomenon, unique in its scope. Despite the ethical questions regarding the relations of old vs new and the authenticity of the completed object, Geddes referred to this in his doctrine: unlike William Morris, who supported preserving the architectural object in its original form with no alterations, Geddes approved of changes and adaptation to the needs of the era, as long as the object maintains its place in the historical architecture collection (there). This provides closure to the circle of influence and the physical manifestation of Geddes' vision in the evolution of the White City of Tel Aviv, as an exceptional example of a homogenous expression of a modern vision. The successful outcome is the result of a complete correlation between the collective vision of a society choosing to create a healthy, equal and innovative environment and the adoption and implementation of the planning vision that expresses these values.

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Patrick Geddes and the idea of Garden City for Tel Aviv

Yulia Leonov

Being just one of many urban planning concepts of the beginning of the 20th century, the idea of Garden City gained extraordinary popularity in quite different countries – England, Germany, Russia, America, and, which is less mentioned, in pre-state Israel. Unlike other urban theories, promoted mainly by its authors and a circle of followers, Garden City dream attracted unprecedented number of enthusiasts.

Perhaps, the formula for success of the idea of producing the city space through garden representation laid primarily in the exceptionally winning name. The metaphor "Garden City" competed with the other, most spread garden metaphor – metaphor for Paradise Garden. Garden city is a place on Earth, free from heavenly, i.e. afterlife connotation; its industrial, trading, social intents are the demands of people, who need a roof overhead, goods, communication, acclaim, i.e. the demands of people of flesh and blood, not the disembodied spirits. Impressive name-oxymoron, combining active energy of the city and pleasurable tranquility of the garden, have become an image for poetry, got into the language of propaganda and politics, advertising and toponymy, became a symbol and motivator for builders and dwellers of the new cities. All magic of the words "Garden City" can be observed in the history of vigorous building of the new Hebrew settlements on the land of Palestine in the beginning of the XX c. In that discourse, collective authorship of the creative product "Tel Aviv" as a space for representation of the Garden City ideas, perhaps, is unprecedented in number of participants and length of time. This impressive period – at least half a century of the influence of the Garden City ideas on Tel Aviv development can be well traced in the articles, projects, songs, toponyms, posters – and urban development plans as such.

In 1895 Theodor Herzl, a visionary of the future Hebrew State, mentioned the words about Garden City in his diary: "City construction: The difficulty: a margin for expansion, and yet with an appearance of being inhabited. May be solved by the construction of garden cities."¹ These words, which can be related to Tel Aviv, founded fourteen years later, only indirectly, evidently project wishful thinking of the significant amount of the process participants.

1 Theodor Herzl, Complete Diaries, ed. Raphael Patai, trans. Harry Zohn, 1958, v.7, 59

The plan for the first exemplary Hebrew city, designed by Austrian Wilhelm Stiassny in 1909, had definite features of the Garden City, and the text about the future city stated: “no house without garden, no street without stands of trees, no plaza without gardens and fountains.”²

As magically attractive described the name “Garden City”³ Franz Oppenheimer in the collected volume “Eine Gartenstadt für Palästina” in 1919.

All of the Richard Kauffmann’, an influential pre-state Israel planner, suburban settlement plans included the label Ir-Ganim (Garden city), before they received an official name. Kauffmann “used it, more for its propagandistic value,... as the name already states, gardenlike grounds, they are to be light, hygienic and pleasant to the eye.”⁴ In the same spirit was his 1921 plan for Tel Aviv.

In 1925 Scot Patrick Geddes developed his own master-plan of Tel Aviv, totally imbued with the ideas of Garden City.

In the 30s architectural representation of the city changed drastically with the new wave of modernist planners, emigrated from Europe, however, the expression “Garden City”, nor the paradigm itself did not vanish, but on the contrary, gained new spatial philosophy.

Modern Movement architects were building their White City in the spirit of Le Corbusier, for whom urban environment should “create a richer spiritual life for its inhabitants” and who “was deeply bound up with his emphasis on bringing nature back into the city,”⁵ and in the spirit of Bauhaus, graduates and followers of which were also the adherents of new ideas, including “green” ones, in building. At this stage the development of the Garden City ideas in Tel Aviv resulted in especially bright solutions in the field of interpenetration of nature and architecture, in providing viewpoints, arrangement of panoramic windows, balconies, terraces; it also led to the enrichment of the building shape with the structures for gardening, which became a part of the architectural foundation of the building.

² Wilhelm Stiassny, *Das Projekt zur Anlage einer Kolonie im Heiligen Lande oder in einem seiner Nebenländer. 1909*, 38. Translated by Sonder Ines in Bigon, Liora, and Yossi Katz, eds. *Garden cities and colonial planning: Transnationality and urban ideas in Africa and Palestine*. Oxford University Press, 2016, 131

³ Franz Oppenheimer, *Gartenstadt in: Nordau, Max. Eine Gartenstadt Für Palastina: Festgabe Zum Siebzigsten Geburtstag Von Max Nordau*. Berlin: Judischer Verlag, 1920, 24

⁴ Lotte Cohn, *Richard Kauffmann Architect and City Planner*, accessed January 14, 2017, <http://richardkauffmann.com/wordpress/biography>

⁵ Emma Dummett, *Green space and cosmic order: Le Corbusier’s understanding of nature*, 2008, 24

The listed above culminated in the final formation of the most original environmental phenomenon of the White city of Tel Aviv – where city fabric, consisting of low-raised modernist “garden-buildings”, is inscribed in parcellation plan based on the Patrick Geddes’s Garden City theory interpretation.

Geddes’s plan has the ultimate importance in this passing of relay. A discussion on the extent of its implementation remains open. One of the reasons for the diversity of the issue is the intention of Patrick Geddes itself: “town planning is not something which can be done from above, ... It is the development of a local life, a regional character, a civic spirit, a unique individuality, capable of course of growth and expansion, of improvement and development in many ways, of profiting too by the example and criticism of others, yet always in its own way and upon its own foundations.”⁶

This premeditated intention of Geddes’ had integrated into the race of city creation so successfully, that for a while his participation in it became more a symbolic meaning.

Publishing of the Patrick Geddes’ 1925 report for Tel Aviv not only gives proper respect to his contribution, but also provides an opportunity for a wide audience to get acquainted with an important document of the youth era of the development of urban planning as a science. Geddes had developed this science with all his enthusiasm, encyclopedic knowledge, pioneer work, and at the same time devotion to the history of human culture. His report for Tel Aviv is a living illustration of his vision how to realize his mission within a real practical task – a mission, which he had started in the times of his social activity in Open Spaces Committee in Edinburgh, and continued with the organization of “Town Planning Exhibitions” in Britain, Ireland, Belgium, and India, and with the publication of his key work “Cities in evolution” in 1915.

In the document the echoes of the ideas, searches and practices which Geddes, and other ideological developers of the young city, are intertwining of the realities of the city’s state for 1925 with universal humanitarian values - sociality, culture, environmentalism – are of particular interest for the experts in early Tel Aviv history.

Patrick Geddes wrote repeatedly on the significance of the history of the settlement and geographical features of its territory as an indispensable ground for the future planning; each development plan should be preceded by a profound investigation of the place: “the problem before us on our return to survey our modern towns, our ancient cities anew, to decipher their

⁶ Geddes, Sir Patrick, *Cities in Evolution*. London: William & Norgate, 1915, 205

origins and trace their growth, to preserve their surviving memorials and to continue all that is vital in their local life; and on this historic foundation, and on a corresponding survey and constructive criticism of our actual present, go forward to plan out a bettering future with such individual and collective foresight as we may..."⁷ Planning of a new city ex nihilo was not a hindrance to the research interest he had in the decoding of spatial scenery as, according to his words, "Hence our modern town, even when yesterday but prairie, was no mere vacant site, but was at once enriched and encumbered by the surviving traditions of the past; so that even its new buildings are for the most part but vacant shells of past art, of which now only the student cares to trace the objective annals, much less penetrate to the inner history..."⁸ For example, Volker Welter wrote about it in the context of Tel Aviv: "For Geddes, ... old cities were the foundation from which every new city sprang. This included cases where the latter was to be located on what was perceived as virgin, undeveloped, or never before urbanized territory. Tel-Aviv's extension was such a case as it was to be built on sand dunes, orange groves, and vineyards, all slated to disappear. Locations like these were easily misunderstood as the proverbial clean slate for the modern planner's urban visions. Yet they were not [for him]."⁹

In his report for Tel Aviv Patrick Geddes appealed to the decisions, made by his predecessors, planners and architects – Kauffmann, Berwald, Minor, etc., to the history and traditions, to Arabic architecture, to Hellenistic values, and, with particular passion, to Biblical themes. Geographical features of the region, climate, wildlife, relief, which Geddes draws attention to in the report for Tel Aviv, were the equally important elements of human civilization for him. These criteria became a basis of his Valley Section theory; they were always in the center of his planning from his Civic survey of Edinburgh to the offers for several dozens of towns in India.

A Programming Book by Ebenezer Howard, a founder of the movement, was already in considerable part dedicated to the idea of designing a happy community by positioning it in space in a special way. Despite Howard's warnings not to take his famous circular scheme of the ideal Garden City too literally, it was the one to become a main representation of his idea.

Patrick Geddes cleared the concept of garden-city from abstract sketchiness and "circular idea fix" by moving the emphasis towards geography and history of the place as key elements of organic, cultural, and, therefore, happy community. His garden-city is "a human garden of the world, where each form of life may grow and develop according to its nature."¹⁰ And no less his ideal city is a Garden City in the truest, agricultural sense - full of greenery, blooming, fertile. And this is what Geddes writes about not only as biologist by training, but also on the basis of his long-term experience in gardening.

His report is imbued with garden issues, it has plenty of practical advice and poetic metaphors; and the significance, which Geddes has attached to the garden culture in all its aspects, lies on the surface of the document.

7 Geddes, Sir Patrick, *Cities in Evolution*. London: William & Norgate, 1915, 205

8 Geddes, *Civics: As Applied Sociology Part II*, in *The Ideal City*, Helen Meller, ed., Leicester, 1979, 159.

9 Welter, Volker M. The 1925 Master Plan for Tel-Aviv by Patrick Geddes. *Israel Studies* 14, no. 3, 2009, 110

10 Defries Amelia, *The Interpreter Geddes - The Man and His Gospel*. G. Routledge & sons, Limited, 1927



Impressions of a Garden City

Architecture and Text by A N +

Photography by Aviad Bar Ness

Short Stories by Rachel Gottesman

Flora sampling: The Department of Architecture,
Bezalel Academy of Arts and Design, Jerusalem

* * *

Every bush, flower and tree in this city was brought here.

Once there were orchards – orchards on Derekh Shalma Street, orchards in Dizengoff Center, orchards on Ibn Gabirol Street. As the city expanded, they were uprooted and replaced by paved roads and houses. There is no need for sentimentality, it's the way of the world, agriculture bows down to steel and asphalt, the new economy prevails, that's how it goes – and on top of that, politics, immigration, refugees and trauma. The result is a lovely-looking garden – but for its dark, dangerous corners, which are less handsome winning.

So, all the bushes, flowers and trees arrived from afar – some from the Galilee, others from Australia – apart from a few orange and olive trees that remained from the original orchards and plantations. The people also came from afar, other than those who had been here a long time, some say since the beginning, but they're the minority. Some people's roots are as deep as the ficus' - entrenched in the soil, invading the aquifer, raising the sidewalks with their force. And some are like a tropical potted palm, their roots compressed and winding, testing the limits of their small clay pot, easily transported from place to place.

* * *



*“Yet the leaf is the chief product and phenomenon of Life: this is a green world, with animals comparatively few and small, and all dependent on the leaves. **By Leaves We Live.** Some people have strange ideas that they live by money. They think energy is generated by the circulation of coins. Whereas the world is mainly a vast leaf colony, growing on and forming a leafy soil, not a mere mineral mass: and we live not by the jingling of our coins, but by the fullness of our harvests.” (Sir Patrick Geddes)*

Before a city is built, it is a wild landscape, a geological formation, it is home to fauna and flora. It already holds an immanent history, a natural model that future architecture must obey to. Nature has a force of its own. The planning of a city is a permanent process of evolution, and an evaluative one – a stop-motion imagery at both micro and macro levels, a process that is always in-the-making.

One can imagine that the future history of Tel Aviv’s architecture was already written in the landscape, merely waiting for human civilization to catch up. The symbiotic co-existence of city and nature was there perhaps from the start, from the very first time someone stood on the sandy shores north of Jaffa and pictured a new, modern city. Reviewing the city’s plan as a utopian landscape, one body composed of both humans and leaves, is parallel to an attempt to find new ways of seeing and thinking about the world and about our communal lives.

Tel Aviv utilizes the biological concept of evolution, borrowing the fundamental principles and terminology of natural sciences. Yet it’s no less grounded on the social sciences and theoretical humanities. Utopian Tel Aviv is in harmony with its landscape, climate, and histories, it’s both a part of an ancient land and a modern beneficial city that constantly adapts to its environment.

Geddes drew the path: linking landscape scholarship, design, agriculture, and social science, aiming to encourage observation and inquiry into the natural world and its relation to human culture. This allows us to consider the city as a space defined by a new socio-geological order, an ecosystem that doesn’t separate humanity from the environment, civilization from nature. The anthropological and geological are blurred. The evolutionary message is quite clear, the outcome could be either a step forward or a catastrophic disaster.



*“Learning to inhabit the world, instead of trying to construct It”
(Nicolas Bourriaud)*

The Geddes report as a ‘plan’ is the affirmation of a reality that differs from the elements which constitute it. As a tool capable of further creating, it is the future of new architecture. We seek an urban plan that approaches a feral condition, that chooses ambiguity, and prefers movement to stability. The scheme is urging us to accept a degree of uncertainty when negotiating between nature and culture. The plan challenges the underlying assumption of an ontological distinction between human culture and nature.

Over the lifespan of a city, governments fall, global economy changes, environmental catastrophes occur, prosperity and degeneration follow each other in a rhythmic cycle. Today, everything is reconsidered, updated, reloaded, transformed: borders, territories, people, software. What can be expected to remain unchanged?

An effective view highlights the opacity and redundancy of the modern project, while also holding a standpoint of a visionary urban planner. Calling us to experiment, to push technological boundaries, and pursue a new spatial experience, a new type of environmentalism. Blurring and moving beyond the redundancy of the modern. We should offer an ambiguity and obscurity of the origin of purpose. Move toward an architecture that allows spaces to expand and contract in scale and scope, re-appropriated as our society flexes, murmurs, and whirls around us, stuttering architecture... this vagueness is critical.

Once, when Tel Aviv was a new land on the edges of the ancient city of Jaffa, it was built horizontally, stretching northward along the coast. Jaffa was an organic port city, situated on the main coastal road and taking advantage of its position for maritime commerce. Tel Aviv was born abruptly and developed rapidly, forming its own characteristics (efficiency, consumption, leisure) and transforming the land vertically. But the soil is still sand, an uncertain ground, not strong enough to support its tall buildings and restless residents.

Entering the era of climate change there is a sense of danger, decay, mutation, and exhaustion that call for new modes of design, a mutation of systems beyond the twentieth century anthropocentric models. This can take many forms: material agencies with impact on biomass and energy; microbial invention; erasure of borders and new, unimaginable social order; a world of semi-human androids, living underground, hiding from the toxic air. From a geological perspective, what a difference can a small city garden make?

Climate is an outcome, not a given; it is the result of a vast co-production of forces, both human and nonhuman. Yet so far, the overwhelming and irrefutable evidence of climate change has cast only the faintest shadow on planning and policy, despite the notable increase in devastating weather events of unprecedented intensity. Nature responds to change. Architecture would not save the world, but it can alter human experience and interaction.

The entanglement of nature and city redefines the boundaries of our conception, it merges disciplines, rhetorics, the interface between conceptual and scientific languages, geopolitical interventions. The discourse embeds more and more physical and intangible fields, including concepts of big data, smart cities, mixed realities, etc.

We are striving for less wasteful, more respectful architecture; a more comfortable, inquisitive, and gentle space for both humans and nature. This is not an aesthetic pursuit, but rather a moral one.

The garden, for all its beauty, is not an aesthetic oasis; if the sublime is present in its pathways and flowerbeds, it appears as a humble service to the living flora and fauna that occupy it.

In an era of great changes in weather, species, and geology that occur in an unprecedented rate, the question of time is increasingly impinging on us. Indeed, the ways that architecture shifts, changes, transforms, degrades, breaks down, and evolves with time, herald particular futures. We invite chaos to slowly come in so new intensities could emerge.

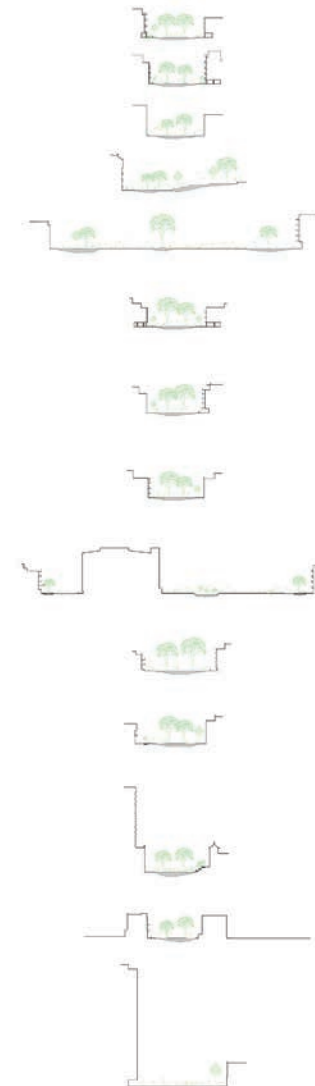
We are at an historical moment when this raw resource will no longer be capable of sustaining millions of people. New kinds of buildings and ways of coexistence might become possible only through a revolution, an invention fusing architecture, agricultural, and environment.

The gardens we imagine in the future offer an immersive experience. They move seamlessly from functionalism to symbolic moments, intensifying both corporeal and psychological disorders. An experience produced by a collective for a community. The humans walking through these gardens are one of many species that emerge, flourish, and perhaps, eventually, go extinct. This vision requires us to consider new approaches to urban living and architecture, where spatial coordinates disappear into an unfathomable depth, the body expands beyond its physical limits, discrete objects lose their definition, and surface and depth become hollow. In the garden, the infinite becomes materialized and actual.

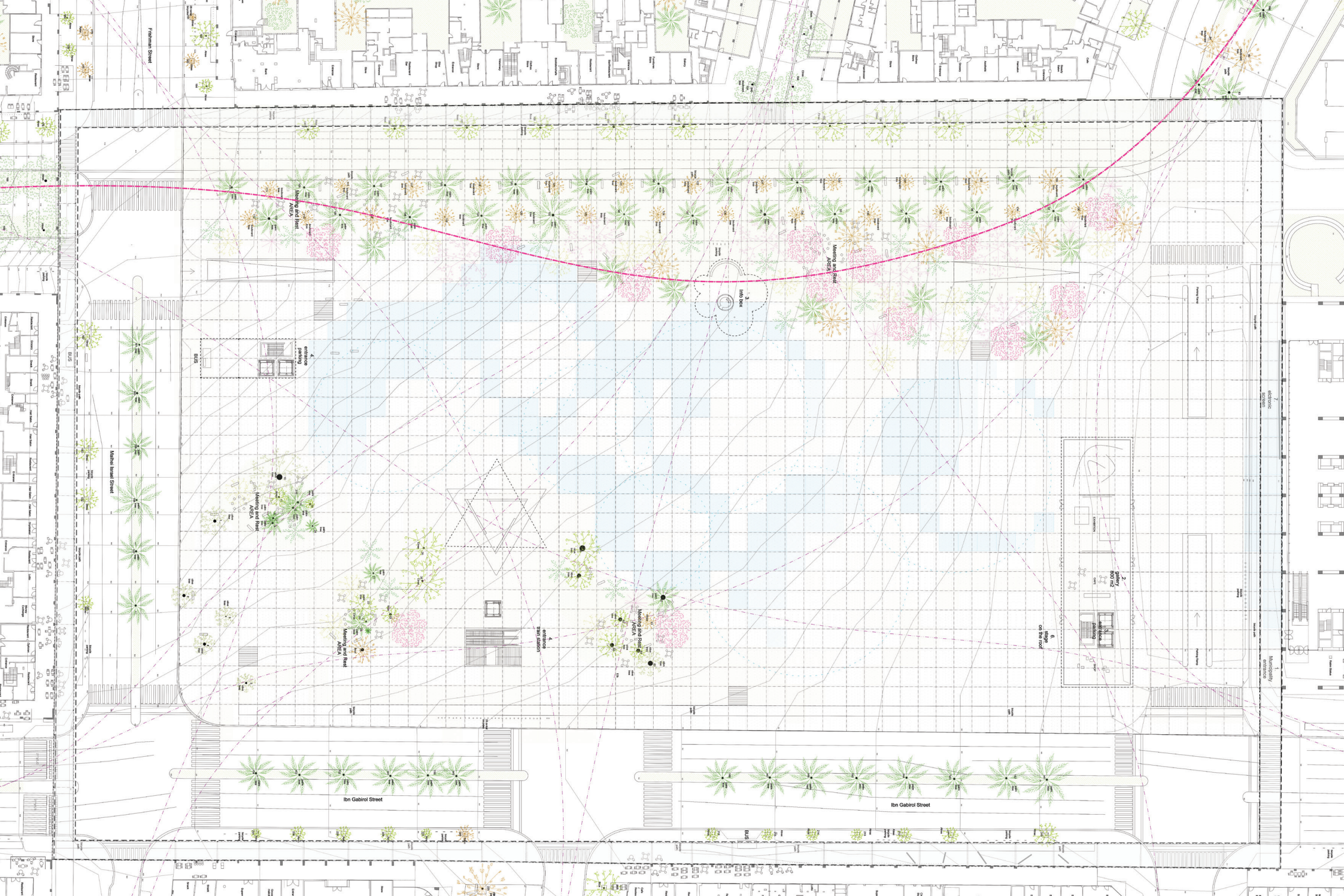


Plan of Tel Aviv biotope





Tel Aviv city promenade. Movement as a characteristic of architecture only reveals itself on the spot, through physical experience, by walking through or around it. Only then does its haptic, spatial, or ideal qualities become tangible. The ideal urban biotope openly favors movement and potential – becoming instead of being.



Proposal for the revitalization of Rabin Square, Ground level plan

* * *

The grass never grows under the ficus trees.

It's a simple fact.

And yet, four employees of the Parks Department are crouched under the ficus trees of Rothschild Boulevard in their blue shirts and cargo pants: uprooting dry cuttings, plowing the soil and then flattening it, laying the green sheets of grass and tightening them, adjusting the sprinklers. This stretch of the boulevard is sectioned off with red and white caution tape and Keep Off the Grass signs.

It's always the same four: one short and heavy; the other wears a large straw hat that hides his face; the third is very young, his hair the color of honey and gathered into a ponytail, his shoulders broad, his pearly white teeth blinding me behind his fleshy lips; and the fourth, much older than the others, orders them around in his baritone voice and scolds the passersby. I observe them working from my table at the café, on the south side of the boulevard, not far from Herzl Street, and it's a sign that it's already winter.

As the earth rotates around the sun, as the seawater evaporates in the summer and condenses into rain in the winter; as the grapevine blossoms, yields fruit, sheds its leaves and blooms once more, as the moon waxes and wanes, as a woman menstruates and the holidays trail each other in an infinite cycle, so time in Tel Aviv is measured by the

work of these four men crouching on the ground before me, replacing the yellowing grass with fresh, green, fragrant sheets.

The work on this southern stretch of the boulevard, from Herzl halfway to Nachalat Binyamin Street, takes place in January and spans some two weeks – a week for the patch on the right, a week for the one on the left. Afterwards they gather their tools and caution tape and move on to the next stretch, one hundred meters north. And so on and so forth, one step at a time all the way to Heichal HaTarbut concert hall. In the spring they're on Shadal Street, in the drawn-out summer they migrate from Ramhal to Hahashmonaim, and in the fall, they trail down Cremieux and Berdichevsky, towards the square and the high-rising statue of rusty steel ascending with abstract momentum. And all over again, back to the south of the boulevard that has already begun to wither. Like the sun and the moon, like the water, like the grapevine and the wheat. And the woman.

I mocked them at first, the Parks Department, for their futile efforts, their Sisyphean, foolish insistence on growing grass under the ficus trees – a sprout condemned to death even before it was planted. But I have come to love them, their calloused hands and sweat-drenched T-shirts, the cyclicity of the grass planted, yellowing, replaced, my city's alternative, artificial pulses of time.

* * *







'Geddes' block gardens



* * *

Approaching his seventh decade, David understood he was actually a gardener. A gardener is not a maintenance worker, but a person who lives and breathes the garden, who listens, observes, serves and tends to it. His entire life he had been other things – a clerk, a banker, a manager; then, going on sixty, he acknowledged his true self. The day it dawned on him he went downtown and bought a wide-brimmed hat and a blue jumpsuit. Naturally, he never wore the jumpsuit, but it gave him a good laugh.

David has three gardens. One is the potted plants on the terrace facing east, filled with sun during the day and shaded in the afternoon, where he grows seasonal flowers and herbs. The second garden faces west, is well-lit most of the day but doesn't get direct sunlight. Here David plants and sprouts and fights with his wife who's had enough of the potted plants and jars that have become a regular fixture on the countertop. And the third garden is downstairs, in the building's shared backyard. Facing south, it gets sun even in the winter. It's surprisingly spacious, hard to believe it's hidden the way it is behind the bland, gray building, in the city's old north. When they moved here, over thirty years ago, the yard was overrun with weeds and garbage, but nowadays, under the gardener's watchful gaze and skilled, loving hands, it blooms and thrives.

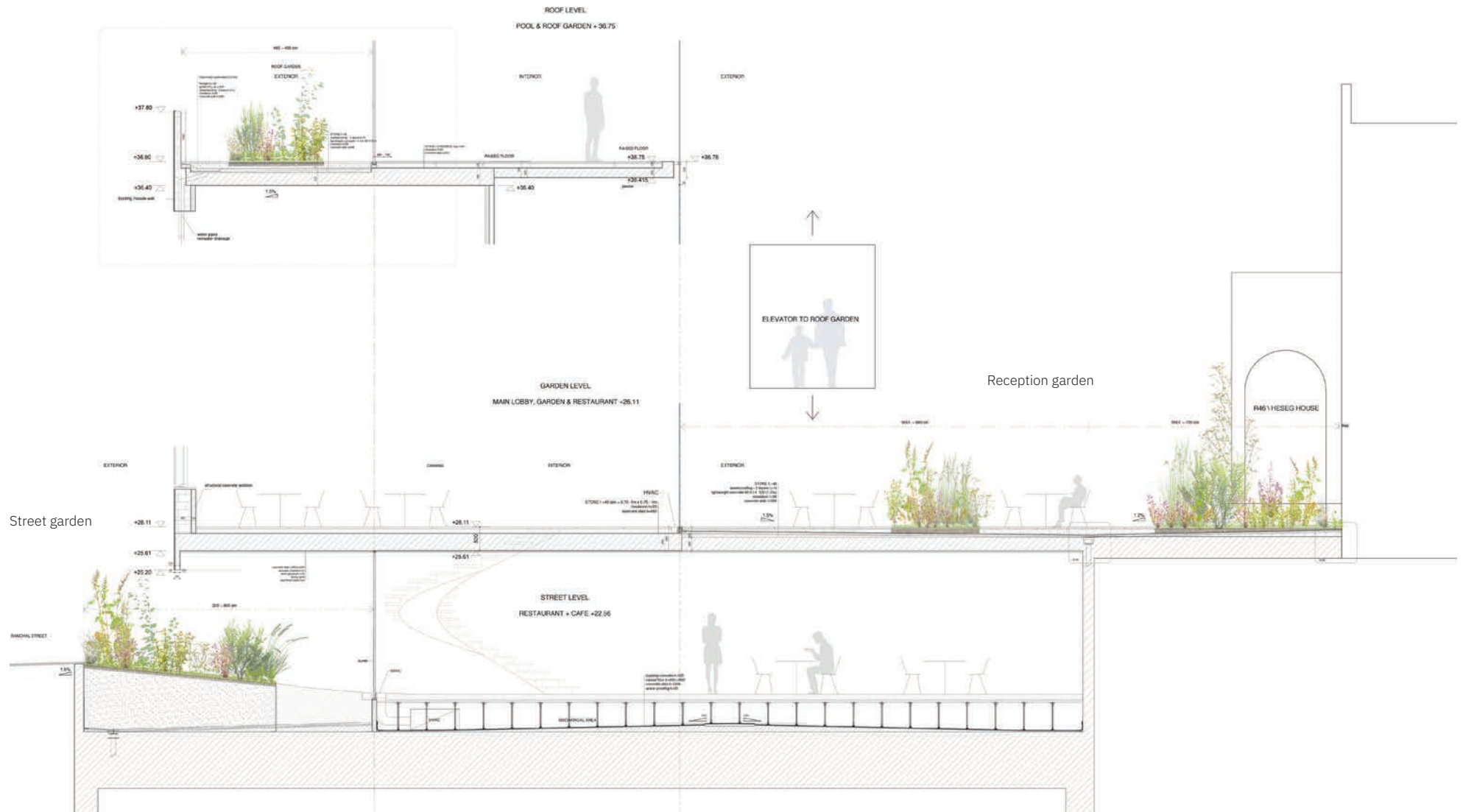
A flourishing, meticulous and manicured garden, and yet somehow wild and random. David plants wildflowers, stalks and various herbs. He sorts onions and bulbs, trims trees and lets everything grow without fences or flowerbeds. He dug a small ecological pool in the far corner, and you can hear toads croaking in the late afternoon. He planted the seven species – wheat, barley, grape, fig, pomegranate, olive and date. Those who stumble upon the garden think they have arrived at a lost, forgotten paradise, a shaded oasis in the heart of the clamorous, blazing city.

David tends to the garden in the early morning, around half past six, and when the bustle of the cars breaks through the silence of the sunrise he goes back upstairs, returning for another hour before sunset. On more taxing days, when the political climate seems out of control and the economy doomed, or when a loved one is sad, or ill, he spends more time with the soil. It's his response to the futility of the world: the earth underneath his fingernails, the smell of leaves and green shades of foliage – that's all he needs. Twice a week, Mondays and Thursdays, he picks up his two granddaughters, Tamar and Geffen, from school and brings them to the garden. They wander among the plants, laughing, and give each one a name, like Adam and Eve in Eden. David jots down the names in a notebook in his round, neat handwriting. Sometimes they go to the sea instead, take a dip, then sit on the sand and gaze at the setting sun.

* * *



Roof terrace garden



Rothschild 48 Hotel and Garden. Three gardens detailed section

“Vivendo Discimus – by Living we learn” (Patric Geddes)

Ambiguity can be seen as a design method, the biotope as a context. Within a collection of gardens, the intermingling landscape of a city, the natural elements, and the human culture become one, thus anticipating the architecture of the future.

How to articulate the relationships between the visible, tangible artefacts of a city and the complex, often invisible, processes that shape the landscape? The physical landscape is constantly transformed by practices of inhabitation, ideas and values, shifting viewpoints, and contexts. It reminds us, the users of the city, that the present always contains traces of the past and clues to the future. Only by embracing the botanic and biologic nature of the city and understanding the history of the space and the place, can we achieve proper balance.

We are searching for architecture without constraints and an urban logic without a finite function. The block-gardens’ beguiling spaces and their commitment to the nature from which they emerge, can guide us. The garden is a primordial entity, prior to philosophical distinctions of subject and object, mind and matter, innate or acquired.



Rothschild 48 Hotel and Garden. Landscape and garden design by Piet Oudolf





* * *

Since the summer started I've been waking up in the middle of the night, 3 AM. Sometimes it's the wind knocking against the window that wakes me, sometimes the cries of cats in heat downstairs in the yard, and sometimes the engine of a speeding motorcycle or the distant siren of an ambulance. But it's always the same hour – three in the morning. And so, each night, I get out of bed, slide my feet into the red flipflops and go downstairs to the garden in front of my house. It's a long, narrow garden stretching along the sidewalk in front of the gray four-story buildings – I live in the second one to the left. The buildings' dark, confined courtyards all lead to this garden, which I frequent every night. In one corner there's a fenced-in playground, and on the other a fenced area for the dogs - a few wooden benches in between. There are also: one ficus tree with a mighty canopy, a water fountain next to the children's area that mostly serves the dogs, a trash can and a bed of bushes running the length of the sidewalk.

I don't stop here during the day, when it belongs to the children, the elderly and the dog owners, only late at night; it's empty and I go downstairs in shorts and my red plastic flipflops, to sit on the bench farthest from the street lamp, in the dark, and smoke cigarette after cigarette, after cigarette.

At night, the city melts away. The silhouettes of the houses appear as ancient ruins, and from between the buildings cypresses and carob trees burst forth, bougainvillea laden with flowers, hibiscuses swaying in the wind. At night the air is warm and damp, the wind that blew gently only a few hours ago is now still, the asphalt slowly releases the heat it stored throughout the blazing day. Above my bench an owl is calling. Its piercing pitch reverberates through my body. There are a lot of mosquitoes at night. I get bitten, I itch, I sweat.

Every night, while sitting here alone, I detect the flash of yellow eyes from one of the dim corners. I think it's a jackal; I once saw its dashing tail, the color of sand, disappearing beneath one of the benches. Now it's curled up behind a bush, eyeing me with its yellow glare. I love this deserted hour, when I'm alone and all is cloaked in darkness, and the true nature of the city is revealed – the way the bricks and asphalt, the fences, rails, electric poles and traffic signs, the sidewalks and dumpsters – are all defeated by the topography of the landscape that has been here since time immemorial; the way the city is held captive by the



stifling summer humidity, how it yields to the plants bursting from the courtyards and climbing up the walls, the fences and parked cars, how it gives in to the roots of the trees that crack its sidewalks, to the hedgehogs burrowing in its earth, to the jackals hiding under its benches. Nature regains control over the streets, disrupting the order imposed on it and creating a new, different world – one that is chaotic and random: foliage and abandoned concrete and a yellow eye in the dark. It's the end of humanity, I think to myself, this is how it will look at the end of the age of man.

* * *







* * *

I moved here a year ago, downtown, near the central bus station, a not-so-great neighborhood. It's very loud here during the day. At night, the girls come and walk the streets, every now and then entering the backyard stretching between my building and the neighboring one. I can watch them from my kitchen balcony. "Girls" is a generic name for the variety of women roaming the area: sex workers, women who were once men or are both, and the junkies, although there aren't many of them. There's some overlap between the groups. In the cramped yard below my kitchen they receive customers, pee, shoot up, and probably engage in other activities. I try not to hear, not to know, even though I sometimes go out to the balcony, quietly, and watch. Once I heard shouts and knew something was going on, so I ran out to the balcony – all the girls were sitting around another girl with blood oozing from her face, speaking to her with gentle words and caressing her. Crying, she told them what had happened and the others calmed her down. I asked them if I should call an ambulance, or the police, but they said no. I see them on my way in or out of the house, especially in the evenings. They're always happy to see me, asking, "What's up, sugar?" and also, "Hey mama, that's some pretty dress!"

I have many memories from backyards. As a little girl I used to play in backyards with the rest of the neighborhood kids, making up adventures. It's where I smoked my first joint, which led to my first kiss. At seventeen, drunk on first love, we bought black spray-paint, my boyfriend and I, and made a cardboard cutout. Late at night we snuck out of the house – my parents' house, that is, a bourgeois apartment on a pleasant, reserved street in midtown – and into the narrow yard between the buildings, where we spray-painted 4EVER on the wall, right in front of my bedroom window. The graffiti was there long after we broke up; it stung – a sharp, pleasant pain.

Around that same time, during lit class, we were reading Shakespeare's *A Midsummer Night's Dream* and the teacher went into detail about the literary, metaphorical, fundamental, paradigmatic differences between the city and the forest – between nature and civilization. How the city is safe and protected, but also dictates what one should wear and think; while the forest is an unruly terrain in which everything is possible and full of promise, but also danger and secrets. In the Shakespearean forest fairies inhabit the soul, love is fickle, one gives

in to the elusiveness of human sexuality, loses one's virginity, howls into the night. While the forest is the natural habitat of lust and disorder, the city is the place of police and weddings.

The backyard below my kitchen balcony is my forest, the one I gaze at from a distance and wonder whether one day I'll have the courage to enter. I look at the untrimmed bushes creeping into the gutters, the cracked tiles, the peeling plaster. I gaze at the girls who do, under the cover of darkness, what is forbidden to do in the light of day, and my soul fills with longing.

* * *









The city, our urban landscape, is an evolutionary invention open to ever changing forces: destruction, construction or reconstruction, constant re-contextualizing. A building has a finite life, even if it extends beyond its currently living occupants; its elements may be replaceable, but only to the extent that they can evolve, change its design, become something else. Our cities can be “upgraded” and “renovated” without fundamentally transforming it; or equally, the building is capable of being thoroughly transformed: a new building on an old foundation, behind an old façade; continuous movement of destruction and construction, a constant flux, evolution. Urban landscape proceeds through continuity.

The garden is the present. It is happening, it is a biotope creating its own ornamentation, becoming a grove, an orchard, a shelter.



Plan



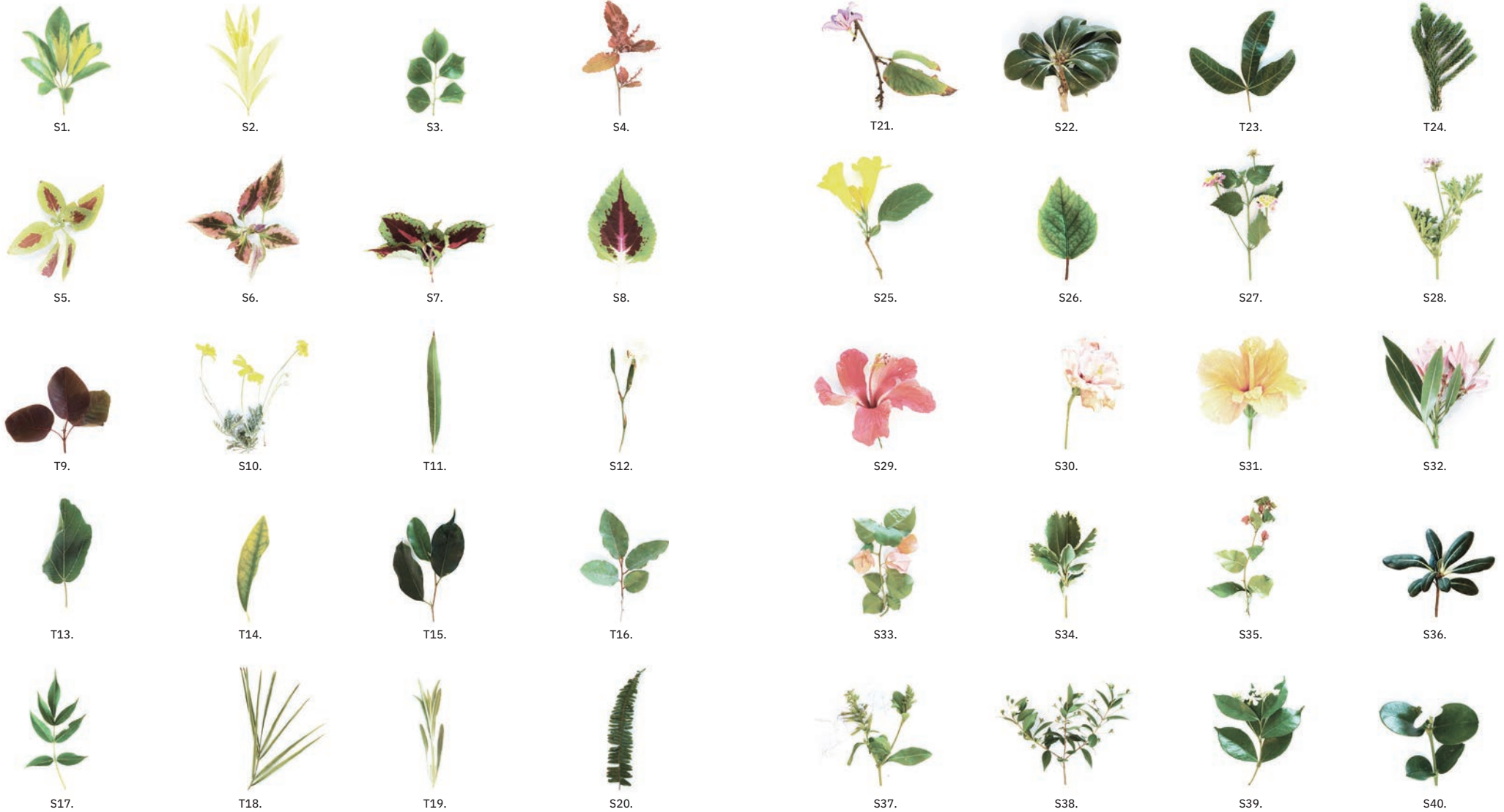
Elevation

* * *

This is my hour of metamorphosis, at twilight, which is neither day nor night, from the moment the sun sets and as long as the west is flushing red and the east turning silver and there are less than three stars in the sky. Now the petals gather into themselves and close up – I hear them screeching. Now the leaves of the tree release the tension stored throughout their daily pursuit of sunlight – I see them unwind and let the wind quietly breeze through them. Now is the hour of the swifts, circling the sky with their urgent squawks, wrapping up their pirouettes of flight as darkness descends and retiring to their homes in the treetops, the gutters of buildings or the holes and nooks in the walls. Night takes over in a flash, the light changing from one moment to the next – light blue, pink, orange and deepening purple until darkness prevails. In the blink of an eye, one enters and the other exits and it's impossible to pinpoint the moment day has turned into night. I hear a large animal panting around the corner, hear its legs stomping on the ground and the chain around its neck tightening. A slug appears between the scattered leaves, I hear the rustle of its body growing louder, feel its wet, sticky skin rubbing against my branches. Suddenly it's cold. Steeped in the groundwater, my roots shrink; the darkness underneath the ground and above the ground are alike. The insects that visited me while it was still daylight have already flown away – they only come when it's hot, when the light is blinding, and my petals are open, the pistils erect, the stamens vibrating, luring them with their bright red glow, with the gentle sway of the fragrant yellow pollen. I have no control over it, over the opening of the petals, the bold red color, the intoxicating scent I release, and I have no choice but to accept the various creatures that call on me. Today a delicate one came along, brushed his antennas inside me tenderly and hummed sweet loving melodies in my ear. Others followed in his footsteps, invading my sepals, trampling my flesh with their lumbering feet, crushing my flowers and tainting my soul. That's why I love this hour of dusk, when the light fades and the flowers close and I retreat inwards, safe. I don't mind the grunts of the large animal or its footsteps echoing through the garden, or the flight of the animated swifts, or the chill of the water in the depths of the ground, or the blindness that descends upon me in this hour of fading light. Now, as darkness takes hold of the garden I can finally breathe again, gather my few belongings – keys, wallet, sunglasses – and head back home.

* * *





S shrubs | T trees

1. Schefflera octophylla (Lour.) Harms. 2. Nerium oleander 3. Bougainvillea spectabilis Willd 4. Acalypha wilkesiana Muell.var. 'Musaica' 5-8. Solenostemon scutellarioides 9. Euphorbia cotinifolia. 10. Chrysanthemum coronarium 11. Mangifera indica 12. Diets bicolor 13. Ficus sycomorus 14. Citrus reticulata Blanco 15. Ficus benghalensis 16. Elaeagnus pungens 17. Sambucus racemosa L. 18. Washingtonia robusta H. A. Wendl 19. Lavandula spica L. 20. Pteridium aquilinum.

S shrubs | T trees

21. Bauhinia variegata 22. Schefflera octophylla (Lour.) Harms 23. Pistacia atlantica 24. Araucaria heterophylla (Salisb.) Franco. 25. Tecoma x smithii Will. Wats 26. Lantana montevidensis (Spreng.) Bricq 27. Lantana camara L. 28. Pelargonium graveolens 29. Hibiscus rosa sinensis L. 30. Hibiscus mutabilis L. 31-30. Hibiscus rosa sinensis L. 32. Nerium oleander L. 33. Bougainvillea spectabilis Willd. 34. Pittosporum tobira 35. Bougainvillea spectabilis Willd. 36. Pittosporum tobira 37. Plumbago capensis 38. Myrtus communis L. 39. Jasminum sambac (L.) Ait. 40. Carissa macrocarpa (Eckl.) A.DC.



S shrubs | T trees

41. *Camellia japonica* 42. *Pennisetum setaceum* 43. *Asparagus densiflorus* (Kunth.) Jessop 'Sprengeri' 44. *Vitis vinifera* 45. *Tamarix ramosissima* 46. *Olea europaea* 47. *Erythrina crista-galli* 48. *Ipomoea fistulosa* 49. *Nerium oleander* L. 50. *Iris xiphium* 51. *Eugenia uniflora* L. 52. *Philodendron selloum* x hybrid 53. *Delonix regia* (Bojer) Rat. 54. *Bauhinia variegata* 55. *Ficus sycomorus* L. 56. *Acalypha wilkesiana* Muell. 57. *Cupressus lusitanica* Mill. 58. *Populus tremuloides* 59. *Jacaranda mimosifolia* D. Don. 60. *Nerium oleander* L.

S shrubs | T trees

61. *Duranta erecta* L. 'variegata' 62. *Bauhinia variegata* (L.) syn. *Bauhinia purpurea* hort. 63. *Cercis siliquastrum* 64. *Ficus sycomorus* L. 65. *Duranta erecta* L. 'variegata' 66. *Leucophyllum zygophyllum* 'Cimarron' 67. *Brachychiton acerifolius* 68. *Pittosporum undulatum* Vent. 69. *Codiaeum variegatum* 70. *Breynia nivosa* 'Roseopicta' 71. *Hemerocallis* 72. *Pittosporum tobira* Ait. 73. *Lantana camara* L. 74. *Lagerstroemia indica* 75. *Bignonia capreolata* 'Tangerine Beauty' 76. *Pistacia lentiscus* 77. *Cordyline fruticosa* 78. *Rhus crenata* 79. *Senecio cineraria* 80. *Mandevilla laxa* (Ruiz & Pav.) Woodson.

* * *

Her anxiety increased after the baby was born. She didn't know whether it was from the constant worrying about little Abigail, or the fact that she had virtually no time for herself, time to be alone, to think, to breathe. Perhaps it was something physical brought on by lack of sleep and the breastfeeding that had worn her down. Whatever it was, it was making her restless, and every thought that crept into her head turned into a gnawing worry that wouldn't abate. Sometimes, without warning, her heart started racing and at night she couldn't fall asleep, or she woke up, panting.

She decided to go back to therapy, to her old psychologist in her nice apartment on Huberman Street, overlooking the square. She thought everyone would support this decision, given her grim state, but despite the generic encouragements, no one offered to help. Danny said she was just exaggerating and that things weren't that bad, not to mention that in their financial situation they couldn't afford a weekly expense of six hundred shekels, plus the babysitter which meant another hundred, almost three thousand shekels a month just because she was having a hard time with the baby and wasn't sleeping well, and no, giving up the babysitter and having him stay with Abigail wasn't an option, because he couldn't just leave the office in the middle of the day – she knew that. She wanted a baby, right? Babies were a handful. Tough luck. Welcome to reality. Her parents, who always made an effort, were also strapped for cash, maybe they could babysit once in a while, but only on Tuesdays. She asked for an advance at work, a zero-interest loan or something, but they weren't exactly forthcoming, claiming

her dragged-out maternity leave was beginning to take its toll. Finally, she cashed in her only savings, the leftovers of her grandmother's inheritance, despite Danny's protests – What's the problem, go to the GP, take an anti-depressant, a week or two and this will all be behind you, why are you turning this into such a big deal?

So here she is now. Half an hour before the session, Tuesday, Abigail is with her parents and she's all alone. Alone. A l o n e. She buys a cup of coffee to-go and walks towards Yaakov garden.

The walk from the boulevard to the white square is blinding. Heichal HaTarbut stands before her, with its light brown shades and white pillars behind the glass walls. She follows it with her eyes along its middle beam, from right to left. The beam and pillars reflect in the still pool and then continue beyond the outlines of the building, creating a game of volumes and shading that transform onto a garden. She enters through the winding path, gazing at the purple blossoms spilling from the open balconies, walking under the shade of the sycamore, sitting down on the bench in front of a fragrant jasmine. She studies the concrete structure of building and garden entangled together – delicate frames that leave room for trees to grow skywards, for leaves to turn green, grass to sway in the wind, clouds to float above. For the first time in months she looks around and feels there's order in the world – the rhythm of pillars, the formation of beams, the bed of plants, the rugged-yet-delicate eolianite ground, the blossoms and the foliage – a quiet place, a place that has inner logic and compassion. A place to be in.

* * *



“Il faut cultiver notre jardin” (Voltaire)

To free architecture from form and function. Toward architecture for a world that doesn't care much about objects, that responds to a planet and society in a state of perpetual and hyper-instability, simultaneously advancing and imploding. This forms a blurred reality; lacking the inherited assumption that divides the elements of the city. Tel Aviv is breaking and merging – creating habitation environments for plants and people alike. Gardens are living organisms, who operate as active elements equivalent to artificial materials.

The biotope precedes architecture. It was there before we modified it, using the material substances of the biotope as agents of their own transformation. We wish to demonstrate nature's behavior before representing its appearance.

Representing a process by observing people's movements through the city, as if studying migratory plants patterns. We are called to examine the nonhuman living world with the eye of an evolutionist, leading us to a practice where our interventions embody a certain **extremity of form**. Structures tending toward invisibility, masked and populated with plant life, as if to demarcate space with the tiniest fraction, a whisper, of man-made matter. Operate as loose public areas and wander into living spaces.

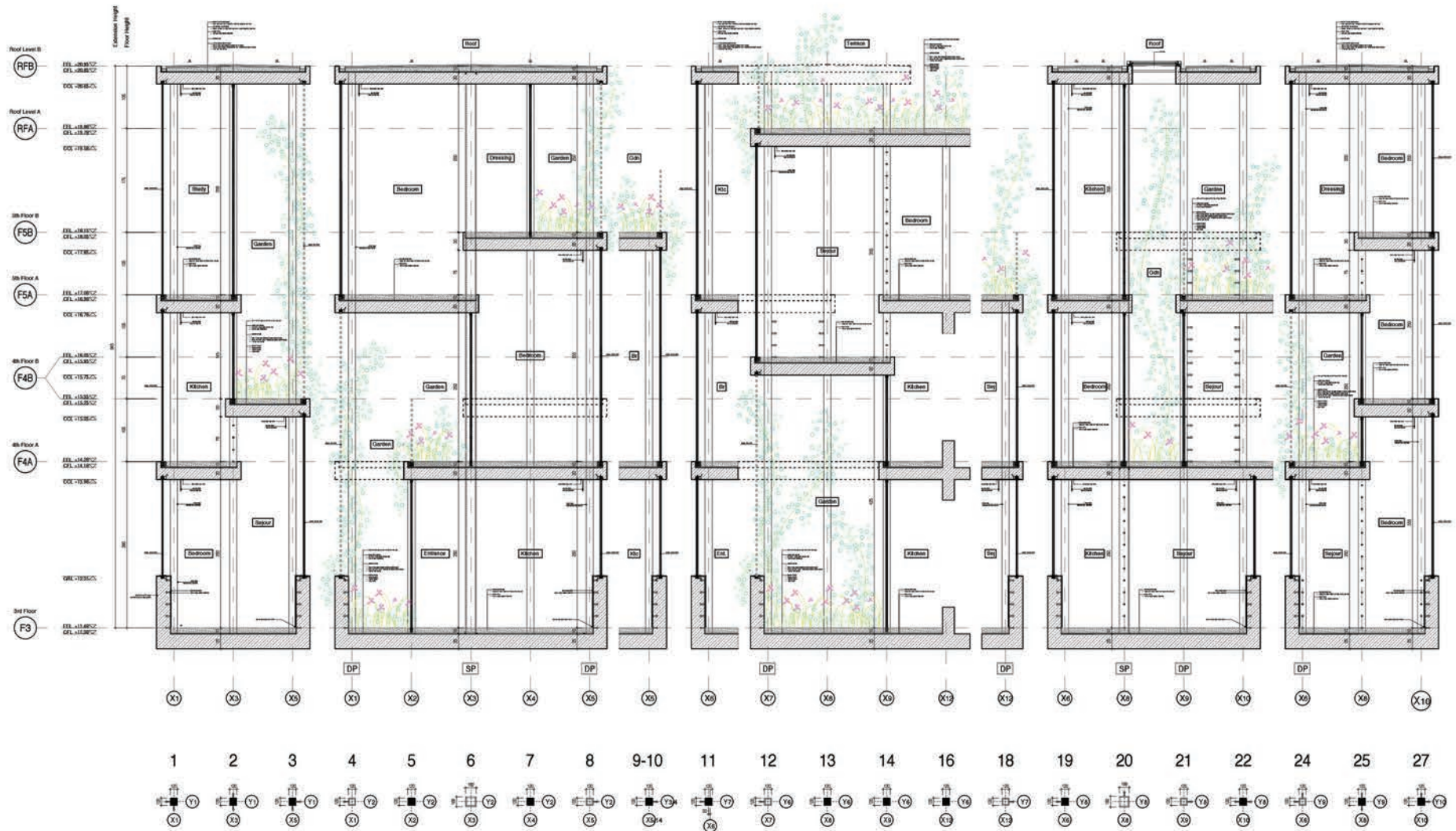
Here, we wish to design gardens as to define a political-aesthetic condition, of construction where we produce something in order to destabilize the habits of a situation. The garden architecture enables silent contemplation – a place of rest. Changes in natural and artificial light shift the depth of the field, altering our perception of size, distance, connection. As they move through space, people blur into silhouettes.

We are drawing an equation of an invisible architecture with a present nature, a domesticated greenhouse for living. Living spaces in which plants and trees grow freely, creating a simple balance of codependency, fragility, and sympathy for nature, the animal world, and architecture.

The lack of programmatic definition for these unformed and ultimately indeterminate volumes – culture and nature, building and garden – is where *life* emerges by way of an interchangeable script for living.

We respond to urban living by creating a living landscape surrounded by plants, as we seek to escape the requirements of format, scales, function, and style. The garden promenade functions on its own terms, reacting not to what is most likely a temporary role, but instead to its immanent conditions.





Floating Desires. Rothschild 69, structure and gardens.



Floating Desires. Rothschild 69, model.



* * *

Hestia Project. Earth Day 10. Standard Galaxy Time 23:15:42.

Headquarters Gama, this is captain Rebecca Moore Reporting. The communication center is finally up. Do you copy?

The recolonization project is proceeding as planned. All staff is safe and healthy. We built the temporary habitation quarters, workshop and communication center on the elevated hill near the sea (zone C), which turned out to be much more suitable than the other options. Zone G, on the north bank of the river, suffers from floods; zone D, which lays inland, is infested with flees. Overall there were no unexpected problems. Our initial concern of toxic soil was refuted, and we planted group 01 plants near the dormitories. First harvest is expected within 60 Earth Days. The deforestation of the habitation zone took much longer than expected. Upon arrival, we found that the area has grown to a thickly wooded forest, more like a rainforest than the Mediterranean grove our climate specialists and agronomists predicted. On first sight you can't see this was once a city. Everything is buried under the greenery, thick ivy covers the buildings, an abundance of plants, flowers, bushes and shrubs fill the small gaps between the trees, some of which rise above the standard height of the rooftops. The region is infested with insects, bugs and mosquitoes of various kinds. during the day there is a constant buzzing sound that follows us everywhere. The crumbled, deserted buildings are home to hundreds of species, some dangerous, such as bears or wild boars and possibly a tiger. We don't leave the quarters without our tasers. After a week of explorations, we finally start to recognize the urban structures that characterized the city before the great abandonment, two-hundred years ago. Walking through this city-forest makes me think of the duration of time; nearly two-hundred years, eight generations, since the last human left earth to never return. But now we are here again.

Transmission time ended. Next report within one Earth Day.
26:00:00 Standard Galaxy Time. Over and Out.

* * *



List of common plants in Tel Aviv

Cacti

Agave americana L.
 Agave angustifolia Haw.
 Aloe spicata Lt.
 Aloe succotrina Lam., & Aloe vera (L.)
 Burm.f. & Aloe perfoliata var. vera
 Aloe arborescens Mill.
 Aloe saponaria
 Cereus
 Cereus uruguayanus Kiesling
 Cordyline indivisa (Forst.)
 Crassula perfoliata L.
 Dracaena draco L.
 Euphorbia resinifera A. Berger
 Kalanchoe pinnata (Lam.)
 Melocactus Link & Otto
 Opuntia stricta Haw.
 Opuntia tuna (L.) Mill.
 Peniocereus serpentinus (Lagasca &
 Rodriguez) N.P. Taylor
 Selenicereus grandiflorus
 Sempervivum tectorum L.
 Sansevieria zeylanica (L.) Willd.
 Yucca aloifolia L.
 Yucca glauca Nutt. Ex J. Fraser

Climber Plants

Anredera cordifolia IL.
 Antigonon leptopus Hook. & Am.
 Bougainvillea glabra Choisy in DC
 Bougainvillea spectabilis Willd.
 Campsis grandiflora Thumb.

Cryptostegia madagascariensis Bojer ex
 Decne
 Dipogon lignosus (L.) Verde.
 Ipomea tricolor Cav.
 Jasminum azoricum L.
 Jasminum grandiflorum L.
 Jasminum officinale L.
 Jasminum L. spp. [officinale] & [sambac]
 Jasminum fruticans L.
 Lonicera japonica Thunb.
 Mandevilla laxa (Ruiz & Pav.) Woodson
 Pereskia aculeata Mill.
 Polygonum baldschaunicum Reg.
 Solanum jasminoides Paxt.
 Tecoma x smithii Will. Wats
 Tecomaria capensis spp. capensis
 Tracheolospermum jasminoides (Lindl.)
 Lem.
 Wisteria sinensis (Sims) Sweet

Fruit Trees

Citrus x clementina
 Citrus reticulata Blanco
 Citrus x limon (L.) Burm.f.
 Citrus x aurantium L.
 Citrus x sinensis (L.) Osbeck
 Eriobotrya japonica (Thunb.) Lindl.
 Ficus carica L.
 Ficus sycomorus L.
 Musa paradisiaca L.
 Punica granatum L.

Houseplants

Adiantum capel-veneris
 Asparagus densiflorus (Kunth.) Jessop
 'Sprengeri'
 Asparagus setaceus (Kunth.) Jessop 'nana'
 Asparagus setaceus (Kunth.) Jessop
 'robustus'
 Aspidistra elatior BI.
 Billbergia spp.
 Clivia miniata Red.
 Hoya carnosa (L. f.) R. Br.
 Iresine herbstii Hook
 Nephrolepis exaltata 'Bostoniensis'
 Tradescantia [Rhoeo] spathacea Sw.
 'Tricolor'
 Tradescantia fluminensis Vell.

Palm Trees

Chamaerops humilis L
 Cycas revoluta Thunb.
 Phoenix canariensis hort. Ex
 Phoenix dactylifera L.
 Washingtonia robusta H. A. Wendl.

Shrubs and Ornamental Plants

Abelmoschus moschatus Medik.
 Abutilon striatum (Gillies) Walp.
 Abutilon x hybridum hart.
 Acalypha hispida Burm.f.
 Acalypha spp.
 Acalypha wilkesiana Muell.

Acalypha wilkesiana Muell.var. 'Musaica'
 Alternanthera ficoidea var. 'amoena' (Lem.)
 Althea L. X hybrida
 Althea rosea L.
 Amaryllis belladonna L.
 Aralia cachemirica Decne.
 Aralia cordata Thunb.
 Begonia metallica w.G.
 Begonia rex Putzeys
 Begonia x semperflorens
 Brugmansia arborea (L.) Lagehr.
 Callistemon salignus (Sm.) DC.
 Callistemon speciosus (Sims) Sweet
 Callistemon coccineus var. laevifolius F.
 Muell.
 Campsis radicans L.
 Canna indica L.
 Carissa spinarum L. syn. Carissa edulis
 (Forssk.) Vahl
 Carissa macrocarpa (Eckl.) A.DC.
 Cestrum elegans (Brongn. ex Neumann)
 Schltldl
 Clerodendrum inerme (L.) Gaertn.
 Clerodendrum speciosissimum Van Geert
 ex Morr.
 Clianthus puniceus (G.Don) Sol. ex Lindl.
 Dasylirion glaucophyllum Hook.
 Datura metel L.
 Donora viscosa (L.) Jacq.
 Duranta erecta L. 'variegata'
 Duranta erecta L. syn. Duranta plumieri
 Jacq.
 Duranta plumieri Jacq. 'alba'
 Echeveria Dc. Spp.
 Elaeagnus angustifolia
 Erigeron karvinskianus AGM
 Euphorbia pulcherrima Willd. ex Klotzsch
 Fatsia japonica (Thunb.) Decne. & Planch.

Heliotropium peruvian urn
 Heliotropium peruvian
 Hibiscus rosa sinensis L.
 Hibiscus schizopetalus Musk. Hook.
 Jasminum sambac (L.) Ait.
 Justicia carnea Lindl
 Justicia carnea Lindl. 'Alba'
 Lagerstroemia indica L.
 Lantana camara L.
 Lantana montevidensis (Spreng.) Bricq.
 Lantana spp.
 Lawsonia inermis L.
 Leonotis leonorus (L.) L. Br.
 Leptospermum laevigatum (Gaertn.) F.
 Muell.
 Ligustrum japonicum Thunb.
 Ligustrum lucidum Ait.
 Ligustrum vulgare L.
 Lonicera nitida L.
 Malvaviscus arboreus Cav.
 Micromeria microphylla (d'Urv.) Benth.
 Myoporum tetrandrum (Labill.)
 Myrtus communis L.
 Myrtus communis L. Var. 'Tarentina'
 Opuntia ficus indica (L.) Mill.
 Opuntia cochenillifera (L.) Mill.
 Phyla nodiflora (L.) Greene
 Pittosporum undulatum Vent.
 Plumbago capensis
 Plumbago willmottiae
 Plumeria alba L.
 Plumeria rubra var. acutifolia (Poir.)
 Woodson
 Raphiolepis umbellata L.
 Raphiolepis x delacourii Andre
 Rosmarinus officinalis L.
 Ruscus aculeatus L.
 Russelia juncea Zucc.

Salvia coccinea Juss.ex Murray
 Salvia farinacea Benth.
 Salvia officinalis L.
 Salvia patens Cav.
 Salvia splendens Sellow ex J .A. Schultes
 Sambucus racemosa L.
 Senna corymbosa (Lam.) Irwin & Barneby
 Senna x floribunda (Cav.) syn.Cassia
 laevigata Willd.
 Senna tora (L.) Roxb.
 Thevetia peruviana (Pers.) Schum.
 Thuja orientalis L.
 Tradescantia spp.
 Verbena rigida Spreng.
 Vinca major L. 'Rosaea'
 Vinca major L. 'Alba'
 Vinca minor L.
 Zephyranthes candida (Lindl.) Herb.

Trees (general)

Araucaria heterophylla (Salisb.) Franco
 Araucaria araucana (Molina) K. Koch
 Bauhinia forficata Link
 Bauhinia variegata (L.) syn. Bauhinia
 purpurea hort.
 Buddleja davidii Franch.
 Buddleja madagascariensis Lam.
 Cupressus lusitanica Mill.
 Cupressus macrocarpa Hartw. ex Gordon
 Cupressus sempervirens (L.) var.
 Horizontalis
 Cupressus sempervirens (L.) var.
 Pyramidalis
 Cupressus sempervirens var. Horizontalis
 Delonix regia (Bojer) Rat.
 Ficus benghalensis

Ficus elastica Roxb.ex Hornem.
 M Ficus macrophylla Desf. ex Pers
 Ficus religiosa L.
 Ficus retusa L. syn. Ficus microcarpa
 Ficus rubiginosa Deal. ex Vent.
 Ficus virens Ait.
 Hibiscus mutabilis L.
 Jacaranda mimosifolia D. Don.
 Melia azedarach L.
 Morus alba L.
 Nerium oleander L.
 Pittosporum tobira Ait.
 Schinus molle L.
 Schinus terebinthifolius L.
 Thuja occidentalis L. (syn. Thuja tatarica
 Gordon)
 Thuja orientalis 'aurea nana' L.
 Thuja orientalis 'compacta' L.
 Thuja orientalis L.

The White City Center studies the architecture and modernist heritage of Tel Aviv.
A center for professionals, residents and the public engaged in conservation and urban development. Our mission is to actively preserve the past, explore the challenges of the present, and develop innovative opportunities for the future of the city.
The White City Center is an Israeli-German cooperation.

A N + is a collaborative practice embracing architecture, art and philosophy.
The studio begins with a desire of recollecting the old and producing the new.
Articulating everything that comes within range, the real and the speculative, the intuitive and the imaginary. Our aim is to create a new architecture which makes us act, feel and think.

