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Wien, im

marseille appartient a qui vient du large - marseille belongs to whom arrives from the sea

introduction: a new significance of the mediterranean

since a couple of years the whole of the mediterranean area, its neighbouring countries and the cities on its shore, are witnessing a conceptual shift of perception regarding the role of the sea that lies between them. something lying in between, as a gap of variable depth. it is in fact a change of precisely this view of matters, which occurs: often now, when speaking about the mediterranean sea, the comparison with a table is made where people, friendly or not, are sitting around to discuss their affairs. this table is a link, a common ground, a mediating interface between quite different interlocutors, and one could ask what would happen if in a given moment, like in that proverbial spiritist séance, the table disappeared and the people were confronted which each other with sudden directness.

lined up along the shore of the mediterranean sea lie countries as different and interdependent as turkey, spain, greece, israel, morocco and france. and both difference and interdependency appear under ethnic, cultural, economic, political aspects. europe meets north africa and the near east.

the mediterranean cities with their ports are acting as individual agents with this present consciousness of the shifting paradigms in the understanding of the area. their inhabitants, their municipalities begin to take measures to better adapt their strategies to the new dimensions that appear to be relevant. on the other hand, not only on the economic level the european community turns its attention to its major mediterranean port cities and formulates several strategies for individual cities, manifested in well defined urban projects. examples lie at hand: barcelona, geno-va, naples, - and marseille.

it is important to be aware of this larger context when considering the case of marseille.

immediate reference for the work presented in this book is tripolis in the currently realized urban intervention named **euromediterranée** project for marseille. related basic conditions are the ethnic and socio-cultural particularity of marseille as a city with a very high portion of immigrants - leading to a consideration of the occurring problems, challenges and opportunities resulting from that situation. changing strategies in the application of social sciences dealing with this kind of situation involve a particular attention to the notion of **identity**, that is self-perception of ethnic or socio-cultural groups and individuals. among many other aspects in urban planning that come into play when discussing useful changes in city shape seems to be the public space, - in particular the topic of **leisure zones** and the way how people are enabled to choose freely the quality of their interactions.

duty free laguna - extended recreation

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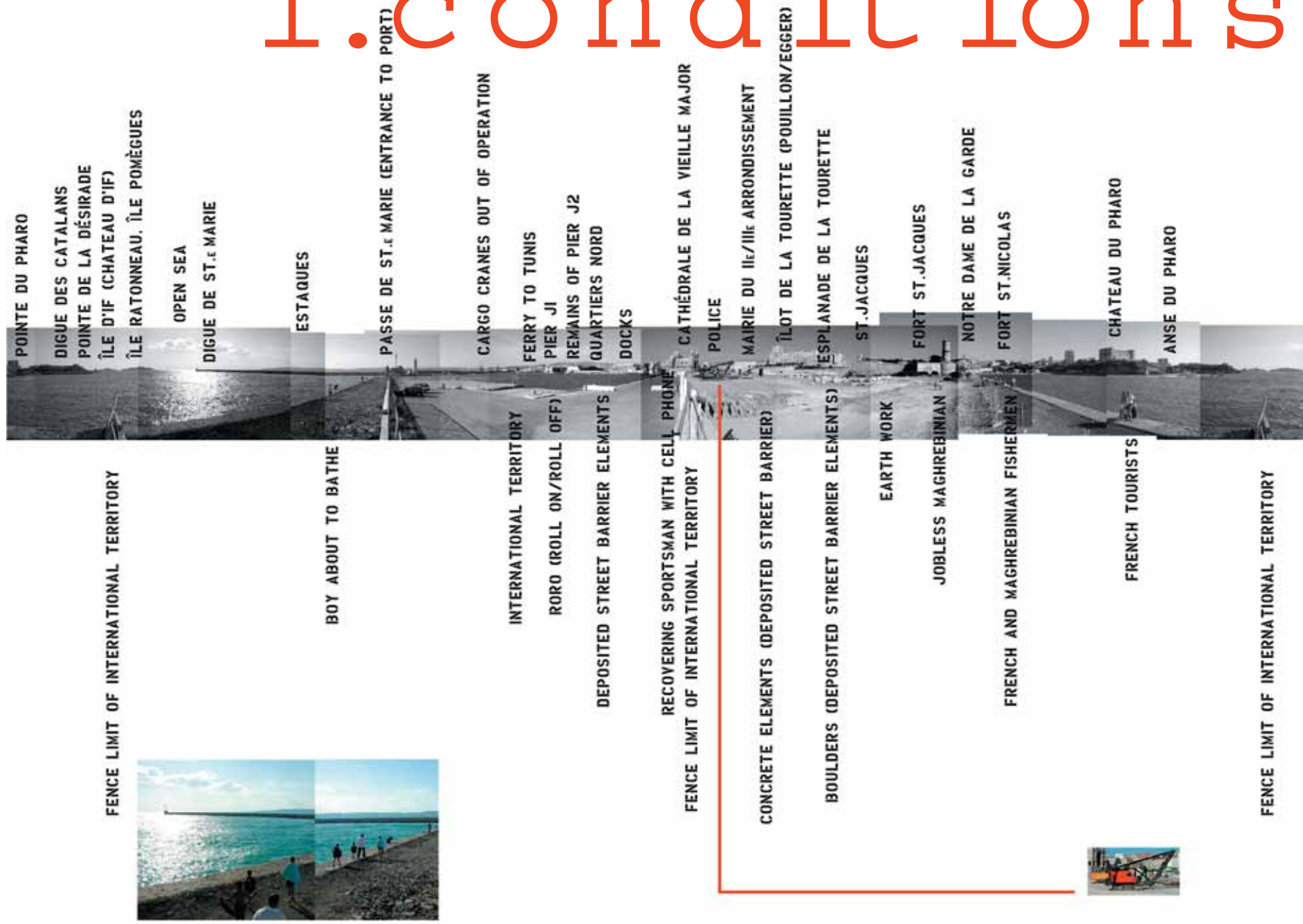
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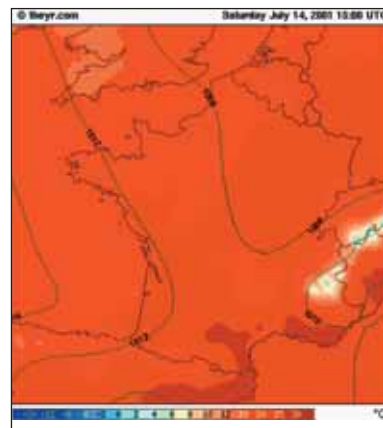
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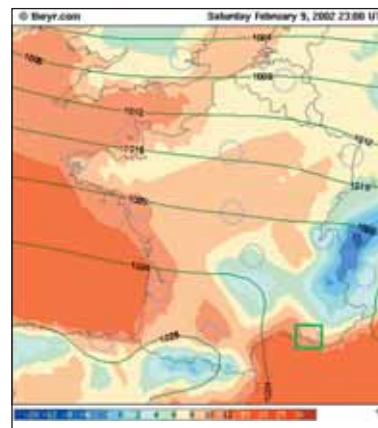
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1. conditions





www.theyr.com



www.ign.fr/GP/cartes/relief/relief-60150.html

climate, topography

Geographic latitude: 47° 23'N

Geographic longitude: 5° 13'E

Altitude: 3 m

marseille is situated in one of the warmest areas of the whole europe, summer (august average around 23,3°) and in winter (january average around 5,5°C). in winter it is regularly 10°C during the day.

the other climatic particularity is the strong mistral, the wind coming from central france and hits the city on about 100 days of the year, especially between december and april. there are frequent bursts which achieve 100 km/h. the wind is mainly responsible for the clear sky, on 2900 h per year, and for the luminosity of the atmosphere and the colors that attracted so many painters.

with the southern french coastline being east-west oriented, marseille's orientation towards the sea is westward: sunset is observed at the sea horizon. surprisingly, all city maps show marseille rotated by 90°, seemingly facing the sea to the south. probably this habit underlines the notion of the southernmost city of france and its view on africa.

the topographic map shows the bay of marseille, the relatively flat area of the city center, and the surrounding mountains (ranging up to 670 m over sea level). this illustrates the fact that the available space for growth of the urban agglomeration is quite limited. the separation of the settled environment (aix-en-provence, aubagne) seems therefore obvious, causing the relative alienation of the marseille population from its hinterland

the coastlines immediately to the both sides of marseille consists of rocky cliffs and fiords, the famous *calanques*. in unique proximity to the city they offer a unique occasion for all sorts of water sports activities in largely unaltered natural environment, with severe prohibitions on construction and commercialization. there are also famous natural beaches.

in the sixties marseille has already undergone a major shift in the perception of its spacial political environment. the dominating role of the port function of the city and the enclosure of the city area was responsible for certain disregard for territorial aspects of due to the function as biggest port of france and, until recently, second biggest port of europe,

la joliette is situated at an extraordinary juxtaposition of urban extremes, on reclaimed land beneath a natural promontory. in the surroundings are:

the disclosed and impenetrable area of the autonomous port of marseille (*PAM*)

the *panier*, one of the oldest conserved quarter of the historic city, where a strong concentration of immigrants and families of former immigrants are living. buildings are badly maintained, the dense quarter in partial decay is considered insanitary and in the eyes of the marseille population hosts traffic and common criminality. several blocks of the quarter along the old port consist of post war buildings constructed after occupying german demolitions 1944.

all ferries to north africa and corsica are passing by on the way to their terminals nearby in the modern industrial port, and boats and yachts of tourists and locals are passing by on the other side on their way into the old port nearby.

facing the site from the other side of the old port entrance sits the chateau du pharo on its cliff, a representative construction of the napoleonic era.

<http://photojournal.jpl.nasa.gov/> (JPL/NASA, California, USA)



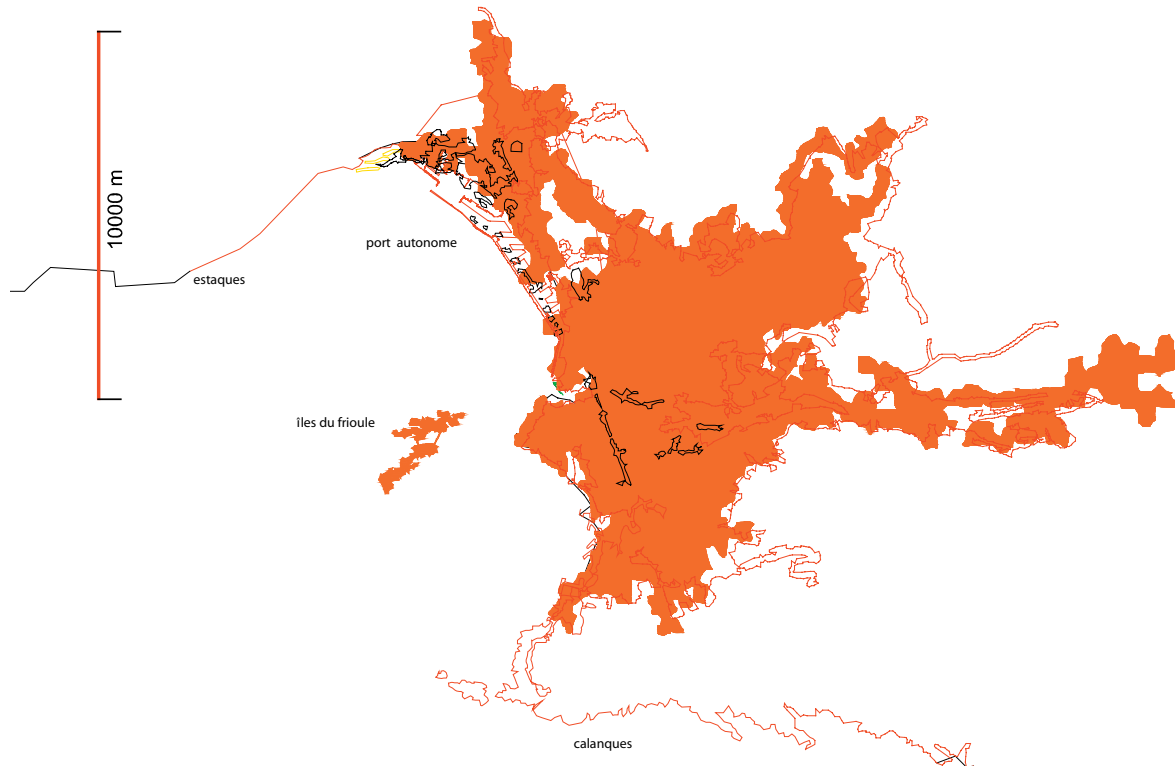
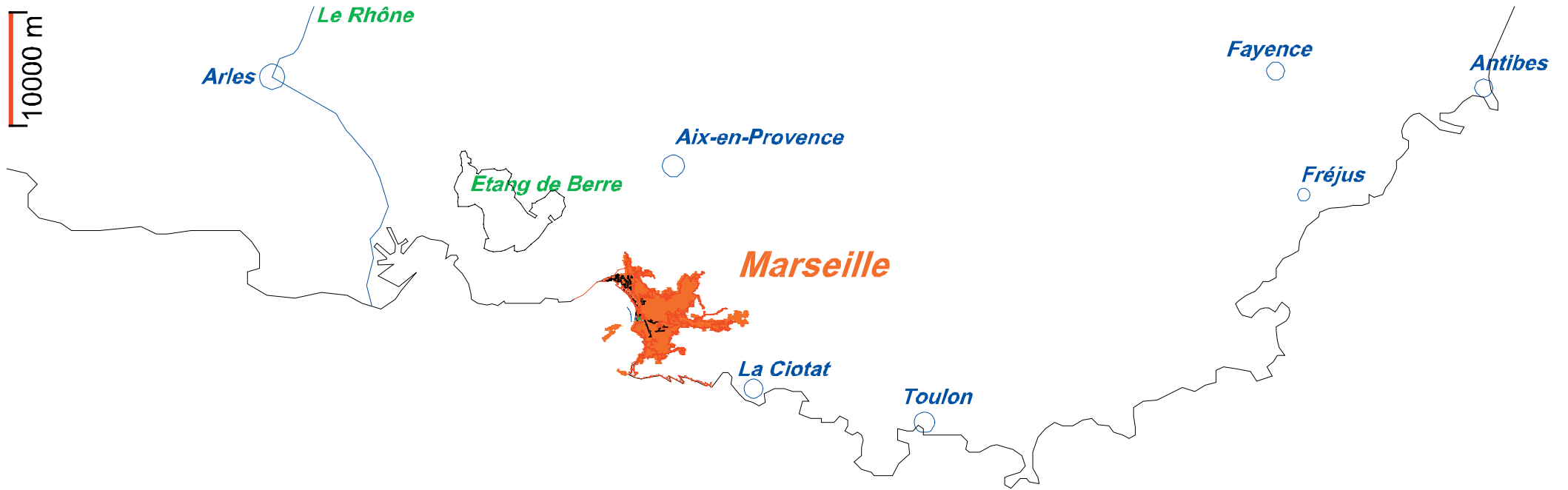
PAM port autonome de marseille, office relation public, service photo



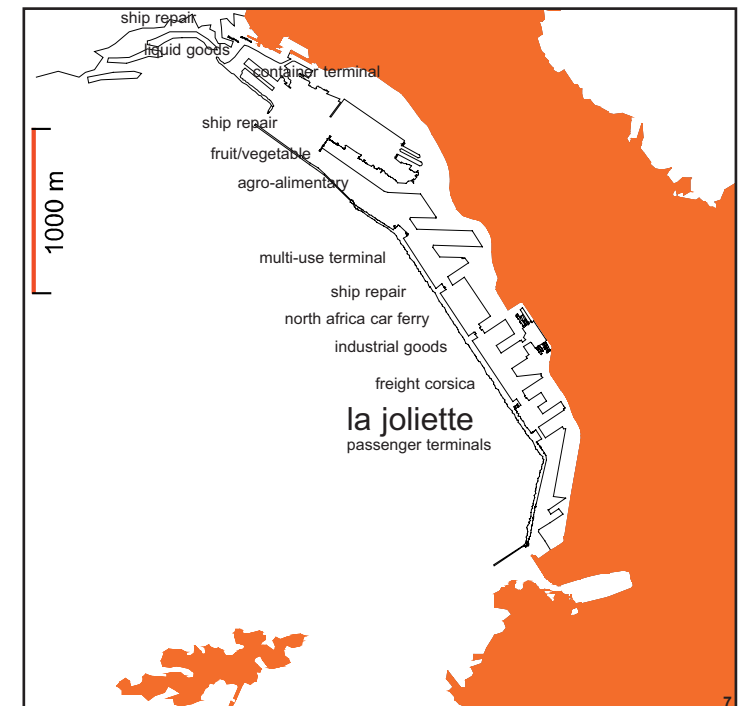
in the small bay right in front southwards lies a ship repair hangar.

to the north the cathedral of marseille stands elevated on a platform, dominating the visual field of the whole *la joliette* area. the site is presently separated from the rest of the city by a highly frequented motorway, which is going to be removed and replaced by a tunnel already under construction.

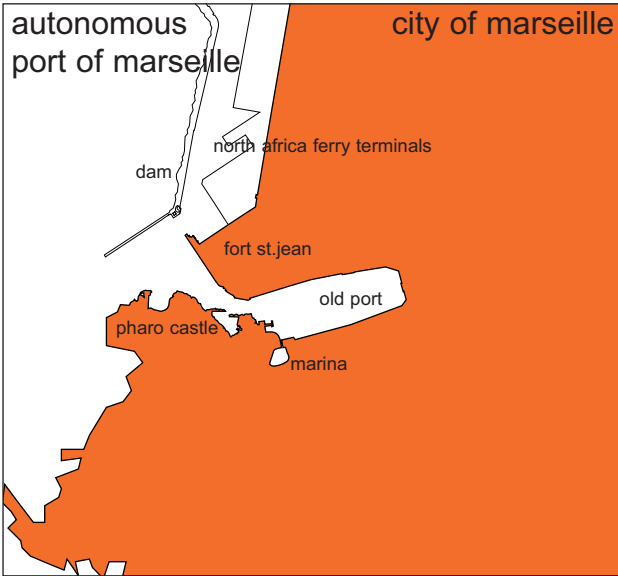
thus the *la joliette* area represents the joint and the link between the traditional or leisure port and the industrial port, between the densely constructed and the spacious extension, between religious and pagan, between french or naturalized french and immigrants, between residents, working people, travelers for business and travelers for holidays.



PAM - port autonome de marseille

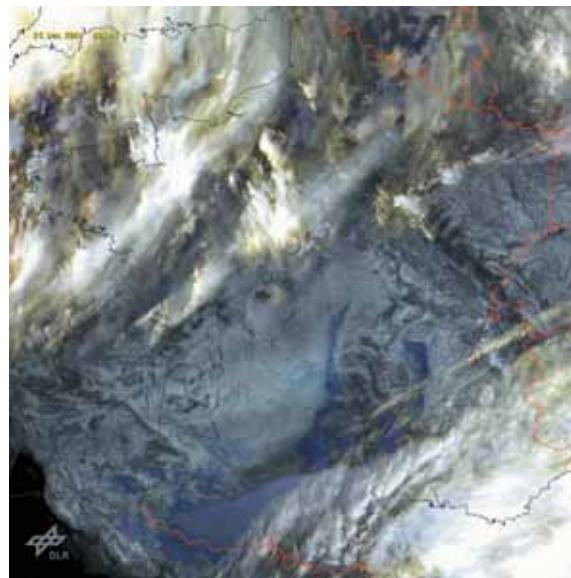


PAM - port autonome de marseille



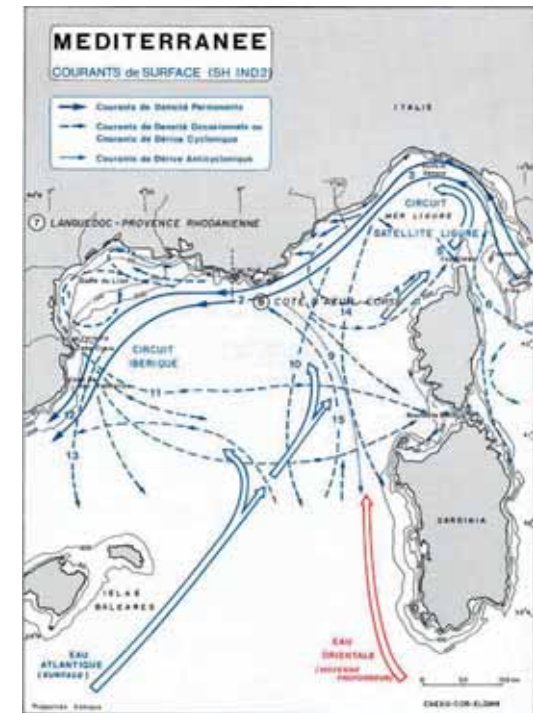


PAM port autonome de marseille, office relation public, service photo



<http://www.dfd.dlr.de/ftp/put/wetterbilder/France/image2.jpg>

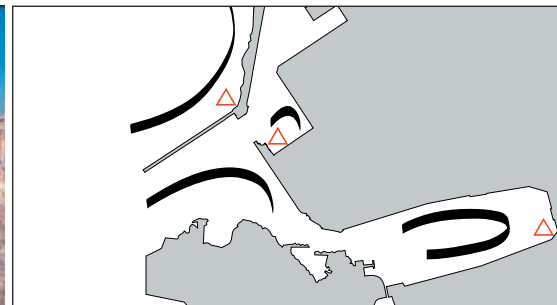
climate and water currents

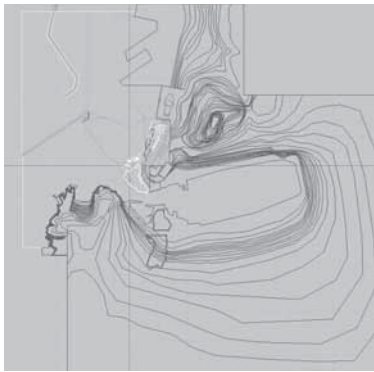


<http://www.ifremer.fr/envlit/region/reg10paca/courantologie.htm>

△ the sign indicates the positions of concentration places of common litter as thrown out of boats or from the shore. three corners in the port zone “attract” swimming litter, allowing to guess the local water currents. they are also visible on top of the aerial photograph on the left.

the surf of the high sea is broken at the *grande digue du large*, the port dam which blocks the view from center of marseille onto the sea; especially from the old port there is no direct perception of the open sea, an observation of which the marseille people are actually not aware. few of them who are not employees of the PAM have even accessed the closed area which is international zone like in an airport, and which is more or less strictly secured. and most of them, again, are not aware of this fact.





topography



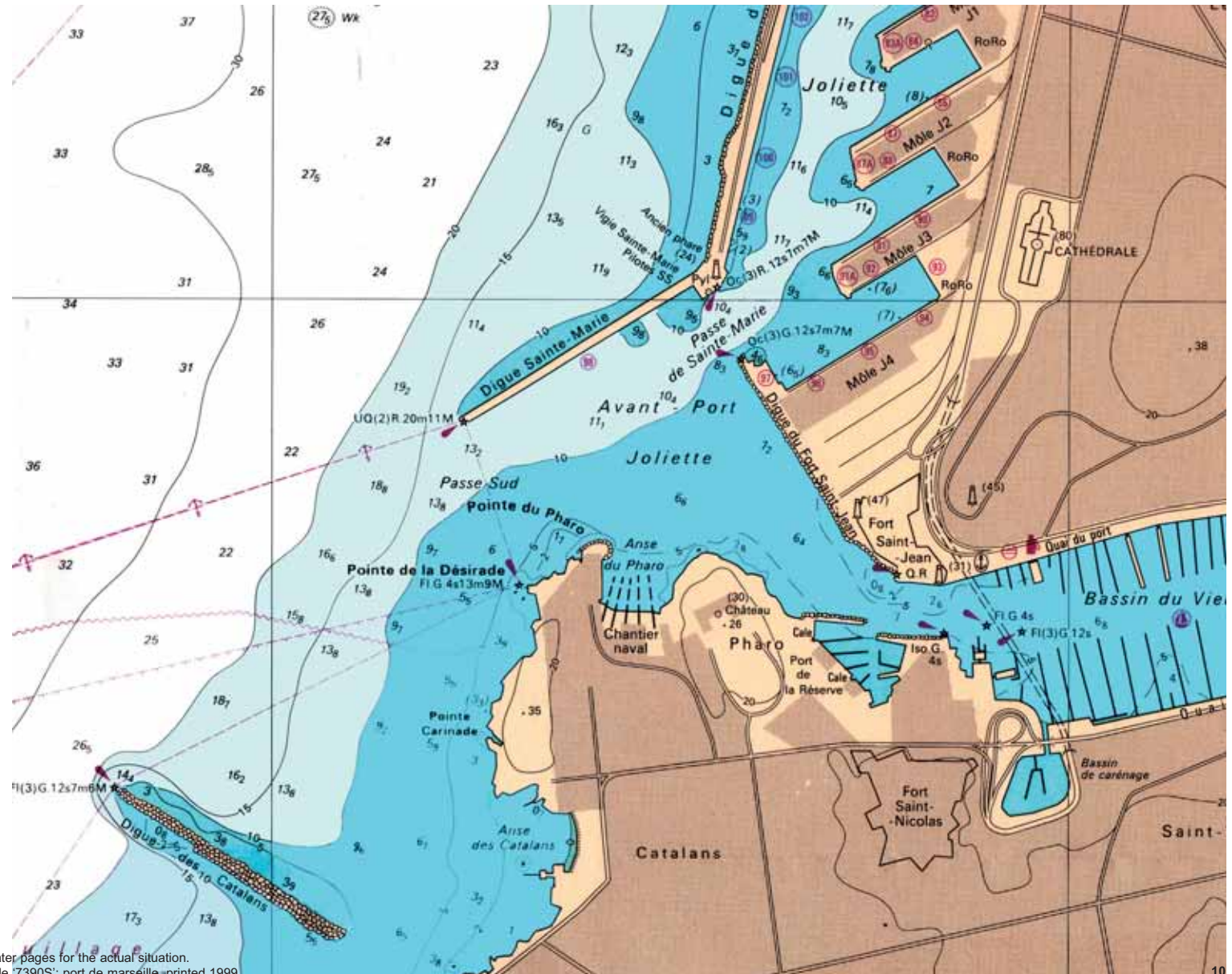
the topographic map shows that around the artificial pier surfaces and the dam water depth is diminishing from sediments. ships of remarkable size have remarkably low draught, as can be seen at the sizable ferries berthing at the piers nearby: their draught ranges between six and seven meters. the biggest passenger cruiser of the world at the moment, the *france/norway*, measures 315 m in length and has a submergence of about 10 m. ships of that size shall be accommodated in the restructured port.

there is the considerable elevation of the *panier*, up to 38 m, with an ridge of 23 m height, squeezing the street together with the *st.jean* fort, which is of about the same height.

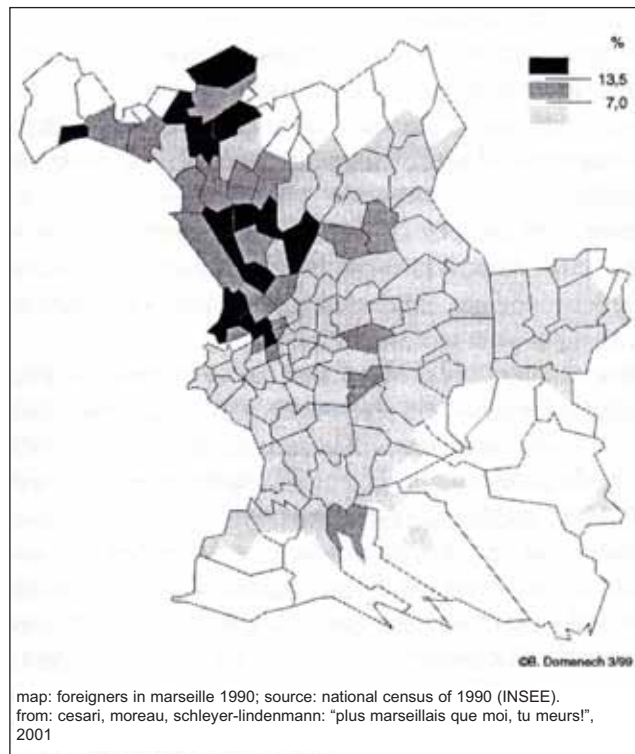
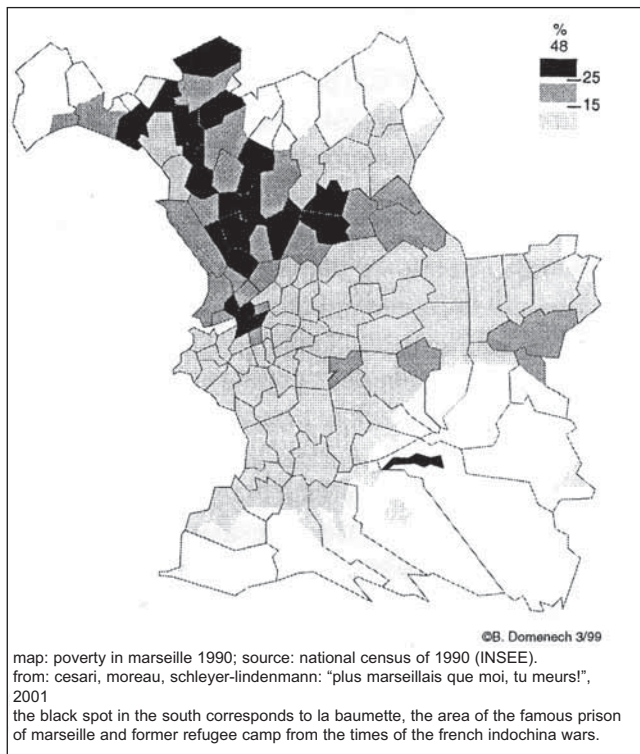
the dam in the bottom left corner of the map, *digue des catalans*, is positioned in order to block the high waves coming in from west-southwest towards the port opening. it could easily be extended.



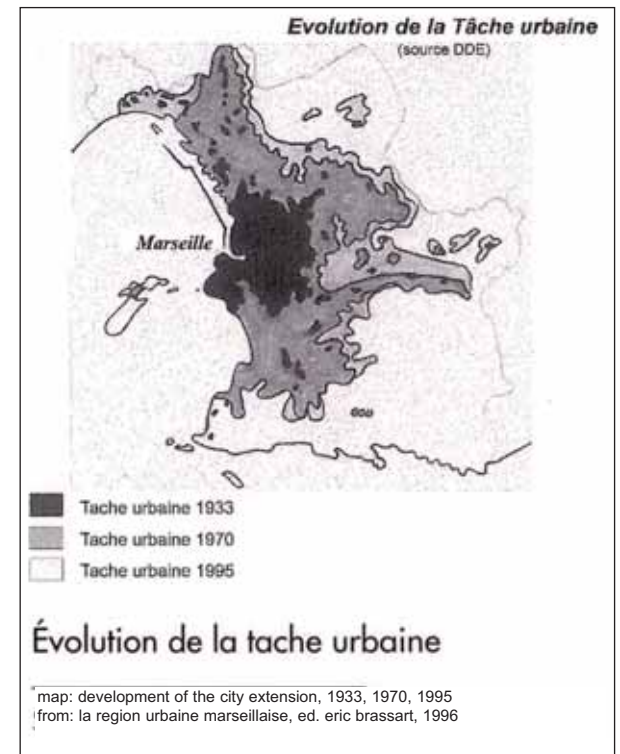
france/norway: http://www.frenchlines.com/pagesFR/expos/expoFEI_france_entreenewyork.jpg



topographic map: the figuring pier (*môle*) J3 doesn't exist anymore; refer to later pages for the actual situation.
service hydrographique et océanographique de la marine, brest; carte speciale '7390S': port de marseille, printed 1999



social
condition

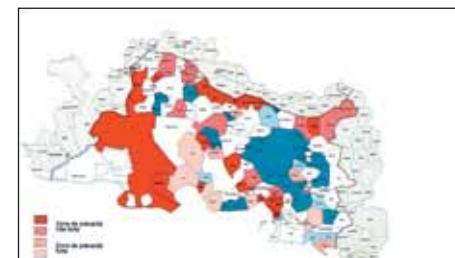


the maps of poverty and of concentration of foreigners in marseille clearly demonstrate the geographic coincidence of these two population characteristics.

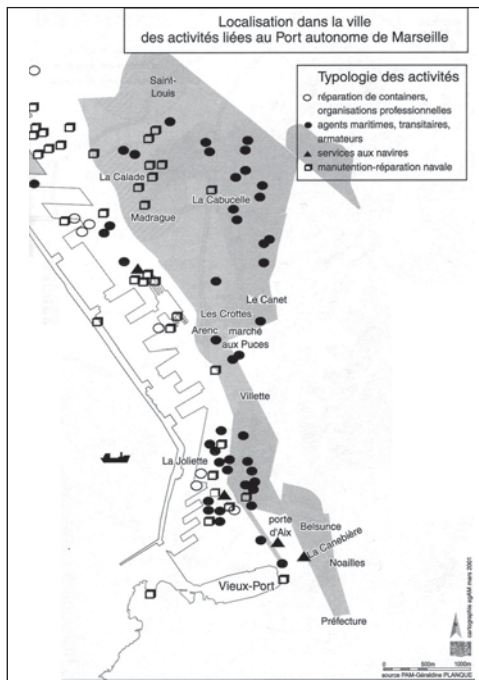
french administration distinguishes between persons with french nationality, including therefore children of immigrants born in france, and foreigners without french nationality. sociologists however carefully observe the differences of origin when examining precarious situation as they prevail in marseille. the official percentage in marseille is about the same as in the rest of france, that is 7%; this is low compared to the numbers between the world wars and immediately after (around 14%), which exceeded the percentage of the rest of france by large. the children of these former immigrants, often refugees, are now french. the countries of origin of the immigrants have changed, too: after waves of hundreds of thousands of italians and spanish, also, but less, polish and belgian (who mainly remained in the north of france), there were the successive waves of people coming from the maghreb, africa, near and far east: vietnamese, moroccan, turks, tunesian, senegalese, comorian, and most of all, algerian.

together with the minorities who existed already since earlier centuries, like italians, spanish, portuguese, catalans, people from corsica, jews, forming quite autonomous groups in this "melting pot" (which was not really so easily melting). these newly arriving numbers of people make a truly multi-cultural city - in the sense that they locally impose their culturally specific ways of living in a large degree on their principal residential quarters. this strikes the eye when visiting le panier, belsunce, noailles and other zones. am multi-cultural city is what marseille has actually always been, even if white french voters of right wing parties (in the meantime fortunately without influence) don't share this view.

it is obvious that the social conditions in the quarters in the north of the city are largely more problematic than those in the center and the south - with addition of the la joliette and the belsunce quarter, the one

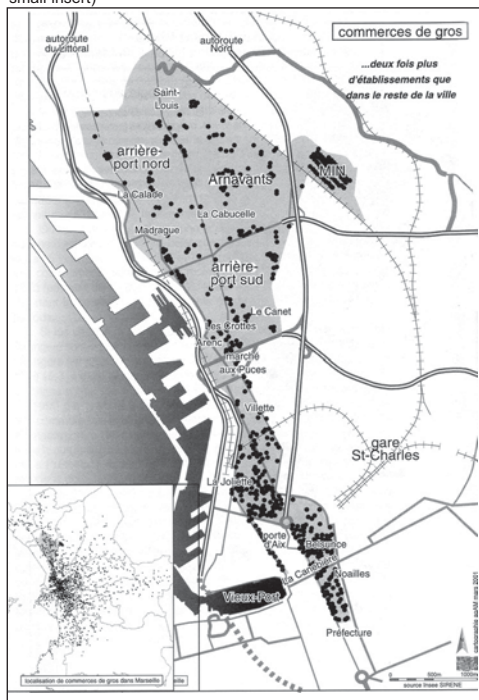


at the old, the other right at the new port. these quarters differ in age of buildings and infrastructure, but resemble nevertheless those in zones commonly referred to as slums, in the sense used generally for the such zones in so-called "developing countries".



map: activities related to the port (container reparation, professional organizations, marine agents, naval furnishing/equipment, ship service, ship maintenance and reparation)

map: bulk commerce (twice as much as in the rest of the city: see small insert)



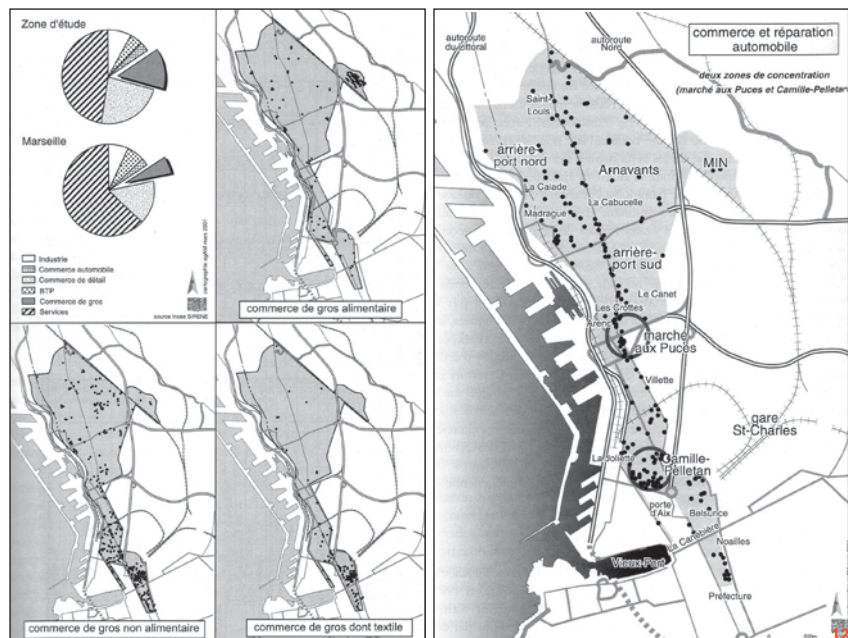
the existence of such a concentration of poverty, combined with the presence of foreigners (of french official definition) is a singular case in a european country; city center slums seem to be frequent in much younger cities of the “third world”, but not in the “first”. but this fact indicates other similarities. sociologists actually compare the case in marseille with processes known from city communities in south america and asia, in the way how new immigrating people are accomodated temporarily by their already present, established relatives or live in hostels until their forthcoming is getting a perspective. the moment they achieve a better standing, they move away. the spatial or morphological particularities of the traditional city pattern in the center allow with greater ease for the development of adaptive economic or professional activity of these people struggling for integration. the survival of immigrants is mainly, beside the merits of official aids and other, organized non-governmental efforts, due to a phenomenon that in pejorative way is called informal economy by sociologists, in lack of better expressions. after the common definition this designates an economical activity with relatively low technological level, a hierarchically flat organization and small capital in combination with low rentability level. this means also officially that it is “a productive activity of resources that is not regulated by the state, in an environment where similar activities are” (porte, castells, benton, 1989). furthermore, these activities are dependent on personal relations, like face to face, of good colleagues which neglect or even render useless any rationalized organization. these maps show strikingly how this kind of economical activities are concentrated in the port area, and some of them in particular in the center at *la joliette*, *belcunce* and *noailles*, which are also next to the old port. to understand the order of dimension, it seems interesting to know that in the considered area (on the maps with grey underlay) the mentioned establishments are twice as numerous as in the rest of marseille.

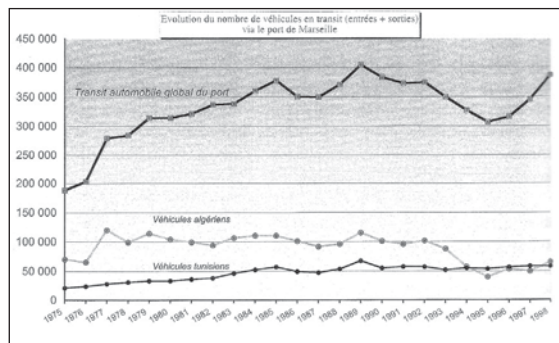
figures and graphics on this page: ed. michel peraldi: cabas et containers, 2001

LES ETABLISSEMENTS D'ACTIVITE AU 1ER JUILLET 1999

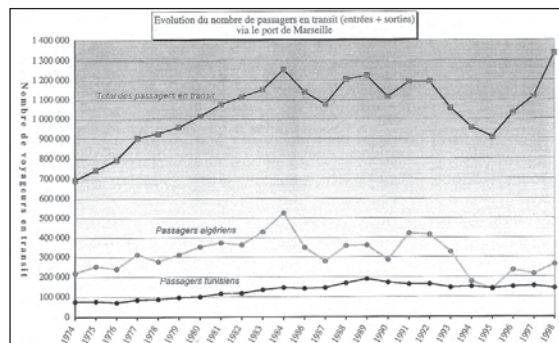
Activité principale de l'établissement	Marseille	Zone d'étude	Noailles	Belcunce	République	Amiens port sud	Camille Pelletan	Amiens port nord	Amavants	MIN
Industrie	3 171	10	1	0	1	4	0	2	1	1
Industrie	3 440	463	72	43	27	135	11	89	84	3
y compris boulangerie, pâtisserie	526	55	13	12	7	9	4	6	5	0
y compris textile, habillement	324	59	12	19	3	16	3	4	2	0
BTP	3 141	244	32	15	7	89	5	58	32	0
Commerce automobile	1 233	206	18	13	1	102	2	47	34	2
Commerce de gros	3 171	763	66	196	23	225	19	62	91	87
y compris intermédiaires	1 013	162	20	21	7	68	6	18	14	10
Produits alimentaires	475	171	5	4	4	50	1	22	11	74
Textile, habillement, cuir	402	187	5	13	3	20	7	8	3	14
Autres produits non alimentaires	3 281	385	62	53	16	149	11	37	77	13
Commerce de détail	7 600	1 327	324	371	108	317	58	94	60	3
Produits alimentaires	2 037	337	88	53	18	102	15	46	15	2
Textile, habillement, cuir	1 224	343	64	185	19	70	15	6	4	0
Autres produits non alimentaires	4 340	647	172	153	69	145	28	47	30	1
Services	31 189	2 735	485	456	334	894	52	420	286	16
Hôtels-café-restaurants	3 696	614	145	180	51	124	17	72	18	7
Transports	2 020	327	8	23	23	159	7	51	31	4
Agences de voyage	151	26	2	11	5	5	2	1	1	1
Transports maritimes	36	3				2				
Autres modes de transports	1 438	152	7	7	7	56	4	36	32	3
Gestion d'infrastructures de transports	44	6				2				
Manutention et entreposage	78	29				1				
Organisation du transport de fret	63	24				16				
Services auxiliaires de transport	219	87				46				
Activités financières	1 231	98	13	11	21	25	5	8	12	3
Activités immobilières	1 612	35	26	13	4	24	1	11	16	1
Services aux entreprises	7 810	463	75	47	61	135	2	62	100	1
Services aux particuliers	3 631	380	75	45	33	67	7	39	14	
Educations, santé, action sociale	5 972	560	76	88	33	118	10	131	38	
Administration	2 231	283	49	79	42	64	3	29	17	
Ensemble des activités	50 067	5 755	972	1 124	494	1 566	147	769	569	111

the spreadsheet gives detailed evidence of the different economical activities area by area. the graphics at the bottom of the page show that the concentration of small scale commerce prevails also in the domain of food, car trade and reparation, and textile. the relevance of these figures consists in the fact that a considerable part of the concerned establishments is in the hands of persons or groups of non french origin. more importantly, their trade relations exist mainly with partners in the maghreb, the countries of origin for the principal actors of the informal economy.





number of vehicles on transit (arrival and departure via the port of marseille
(ed. michel peraldi: cabas et containers, 2001)



number of persons on transit (arrival and departure via the port of marseille
(ed. michel peraldi: cabas et containers, 2001)



cars ready for embarkment



passengers in the waiting area of the terminal



this informal economic activity of foreign people, or also of naturalized people with foreign origins going back some generations, underlines the conception of the mediterranean as a common space of interest for growing portions of bordering populations. their business relations are at the same time often family relations.

yet they distinguish clearly from mafia structures in the way that the use of violence is entirely inexistent, and also in the way that if corruption occurs, these persons are its victims, while "formal" economic actors pass without struggle.

personal biographies of these marseillan-maghrebinian business people often include periods of residence in several mediterranean port cities, typically istambul, before their residence in marseille.

trade with used cars commonly combines with trade of easily transportable goods, like for example household appliances, televisions and the like. the passengers mainly arrive by car, stuffed with goods, deliver their vehicle or leave it with one group member. then they go for shopping for a couple of hours, before boarding. every passenger has the possibility to carry with him or her two pieces of luggage, which therefore are quite large. enormous surfaces of the ferry terminals are necessary for the cars that have passed border control and are waiting for the embarkation.

the graphs on top of the page show that the number of vehicles respectively the number of persons passing through the port of marseille both have doubled in 23 (24) years, with the algerian and the tunisian vehicles together counting for the half of the journeys at first, but much less at the end of the table, in 1998.

another particularity of marseille shall now be considered: despite the high percentage of immigrants and their descendants in the population, and despite the post-colonial context of the resulting problems in french society, marseille has been able to smoothen out their sharpest effects. even if it doesn't seem so at the first glance, compared to other french cities as paris and its suburbs, the *villes nouvelles*, or lyon and strassbourg, marseille owns a population with much more commitment to and identification with the city (as reference), more than with the country they live in, which is an amazing result for immigrants or their children. in sociological surveys young people from marseille with french nationality, coming from families of different origin (mainly french and maghrebinian) have responded in ways to confirm this point. even if the self-defi-

table: poll among youngsters in marseille
from: cesari, moreau, schleyer-lindenmann:
"plus marseillais que moi, tu meurs!",
2001

Tableau 1: Identités ressenties selon l'origine				
Je me sens :	Origine française		Origine algérienne	
	moyenne	écart-type	moyenne	écart-type
Marseillais	8,46	1,39	8,42	1,32
Méditerranéen	7,88	2,03	7,64	2,15
Français	8,29	1,61	6,27	2,74
Européen	6,91	2,57	5,16	3,02

Les adolescents d'origine algérienne s'estiment, en premier lieu, fortement marseillais (m=8,42), puis, selon un ordre

nition as french holds, french consider themselves mainly *marseillais*, secondly they feel french, then mediterranean, and lastly european - and all of these options are accepted quite positively. the same goes for the french of maghrebinian origin: they positively feel european, but most they consider themselves *marseillais*, then mediterranean, then french - in that order.

being european therefore seems less significant than being mediterranean, and being marseillais less than being french.

this gives strong credit to the city they live in. the next pages show elements of how marseille as an environment deals with this.



social housing complex in the north quarters of marseille

maghrebinian family bathing right at the entrance to the old port



from: emile t  mine: la france des immigrants

different to what former groups of immigrants to france, in past centuries up to the beginning of the twentieth century, have experienced, a relative integration or at least acceptance in the society is no longer an obvious result of the mere residence over extended time; not even birth within the country and french nationality gives natural right to feel like a unquestioned part of the society. the past waves of immigration arriving mainly from italy, spain, poland and belgium, went over france, and the single elements were absorbed in general without leaving particular traces except for family names. it must be said however that even in this aspect marseille represents a special case, in that by the sheer number of these persons, the establishment of a quasi multi-cultural society occurred. whole quarters were or are still dominated by these groups of common origin, their children accepted the heritage and virtually realized a quite harmonious synthesis with the french culture and language. so there is the *panier*, which had traditionally accommodated spanish and italian immigrants, and other quarters that were specific for the concentration of immigrants from corsica, or greece, and so on. marseille appears to have always been an immigrant city, historically; up to the point that the founding myth describes the marriage of a local princess to a greek prince - an immigrant so to say - as the initial event for the settlement of later marseille, 2600 years ago. in the second half of the twentieth century however this conception was lost, apparently because of the different conditions under which the ongoing immigration to marseille occurred. the french colonies gained independence, and as a

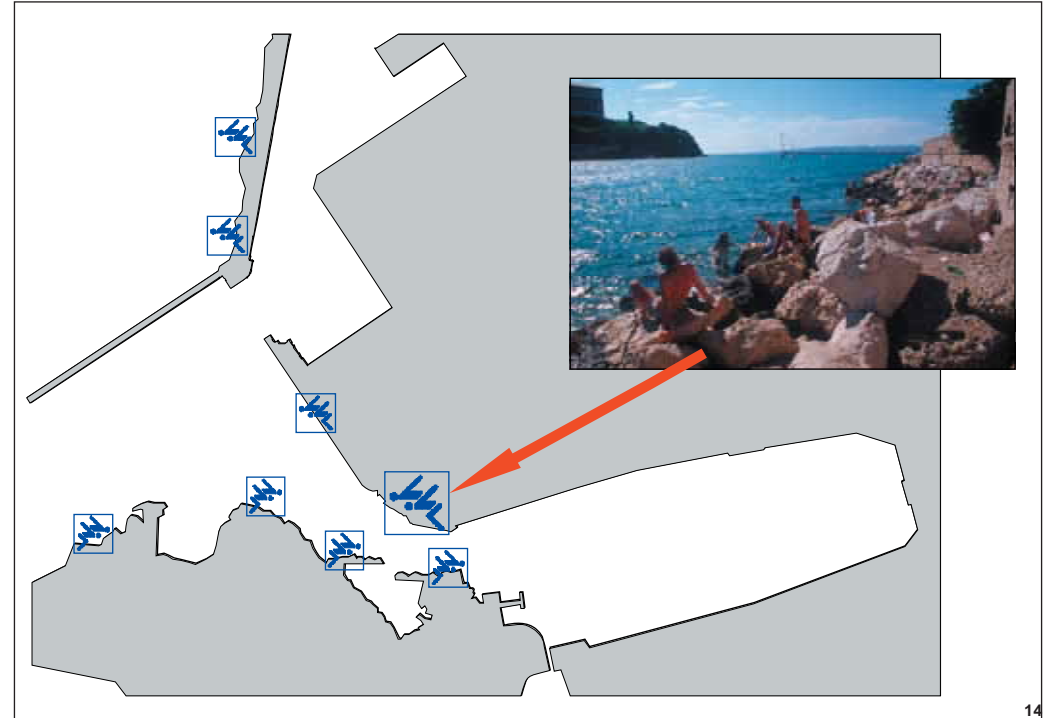


colonial past and the present nearby: the sculptures representing the asian and african colonies to the left and right side of the impressive stairs to marseille central train station. few meters away in the ditch - a humble workman of african origin

result french inhabitants from the maghreb, mainly algeria and tunisia, the *pieds-noirs*, settled back to france. but later there was a constant stream of algerian (arab) people, often refugees, to france, and their position proves to be entirely different in their new host society.

as the formerly colonized, their prestige has never achieved an equilibrium with that of the french population, the colonizers. the foreigners at some point become french, by official definition, yet they never lose the status as immigrants. the economic boom of the fifties and sixties, which led to an enormous expansion both of the city (see preceding page) and port (see following pages) of marseille gave great opportunities to immigrant workers to establish a certain living standard. in great haste these numbers of (working) people (who successively brought their families to join them) were housed, first in camps, then in not really ambitious social housing pro-

several bathing places in the city center are "informally" used mainly by groups of maghrebinian origin. there is no public infrastructure, and boat traffic and unclean water present an inconvenient to the pleasure



jects. often even the intended minimum of public infrastructure was neglected or omitted.

the result were conditions close to catastrophe (even if in marseille the shortcomings are not as ardent as in some other french cities). this concerns the aspects of hygiene, public services like bus (the regular bus system is closing down at 21:00; it must be allowed to ask why), schools, hospitals and so on. therefore also social pressure manifests in an elevated crime rate, drug consumption and all the known consequences. these phenomena are, obviously enough, concentrated in the northern quarters and in those mentioned earlier, in the city center.

like in other cities with similar problems, the attention of urban planners and sociologists nowadays focusses on public space and its compensating and mediating role. the competition of different ethnic or cultural groups of the society for domination in a certain area always includes non-economic activities as well; as shown with the example of the bathing maghrebinian people near the old port (it's more the elderly who do that, while the young are frequenting the beaches in the south), this commonly occurs in similarly "informal" ways as the economic activity of immigrant people.

the mentioned places are central, easy to reach; however, they are isolated. given the general ignorance of *marseillais* towards the vantage points at *la joliette*, and the blocked access to the open sea from the city center, these places (indicated on the map on the pre ceding page) are relatively undisturbed by french "intruders".

otherwise, for leisure time in marseille there are many offers. within the city boundaries not only several extended artificial and natural beaches of various prestige exist (see right of the page), but the *arrondissements* of marseille also include plainly natural landscape (on the map at the extreme top and bottom), some of the most beautiful coastlines of the whole french mediterranean.

yet, due to the complete separation of the northern quarters from the sea by the modern industrial port, the distance of the residential quarters in the north suggests the use of cars, as the busses seem not very convenient.

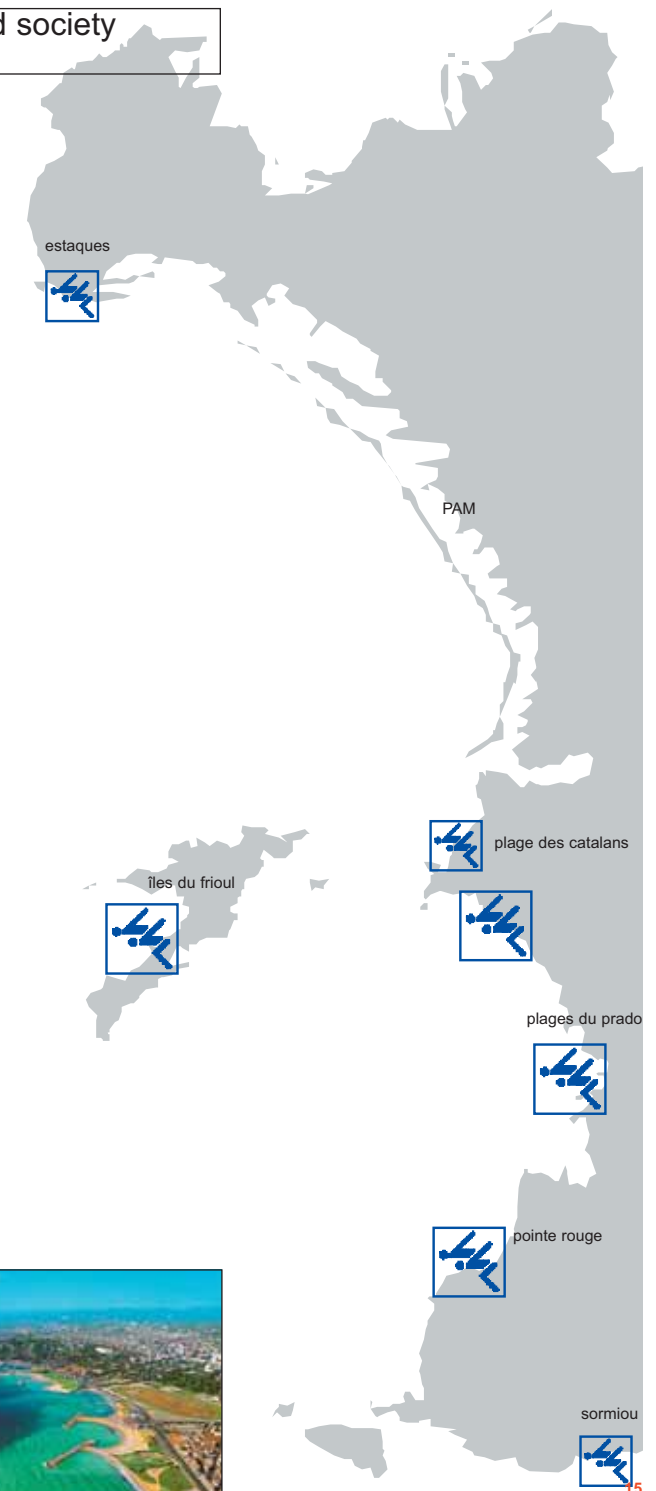
virtually all kinds of ethnic/cultural groups can be observed there, spending their leisure time on these beaches and the quite successfully established supporting infrastructure, like a building complex for restaurants, discos (*escale borély*), and arrangements for the public surfaces including the beaches: meadows and lawns, walkways that are accessible to skaters, wheel chairs and prams; there are beach watchers during daytime, and other services. but the most important of all seems to be that the available surfaces are big.

however, there is nearly no mixing is taking place of these groups. apart from school, or public transport and such occasions, there seems no social contact occurring between french and immigrant population, and among different immigrant populations of different language of origin either. every group follows their aims and seeks diversion at the same places, but they won't get in contact with each other.

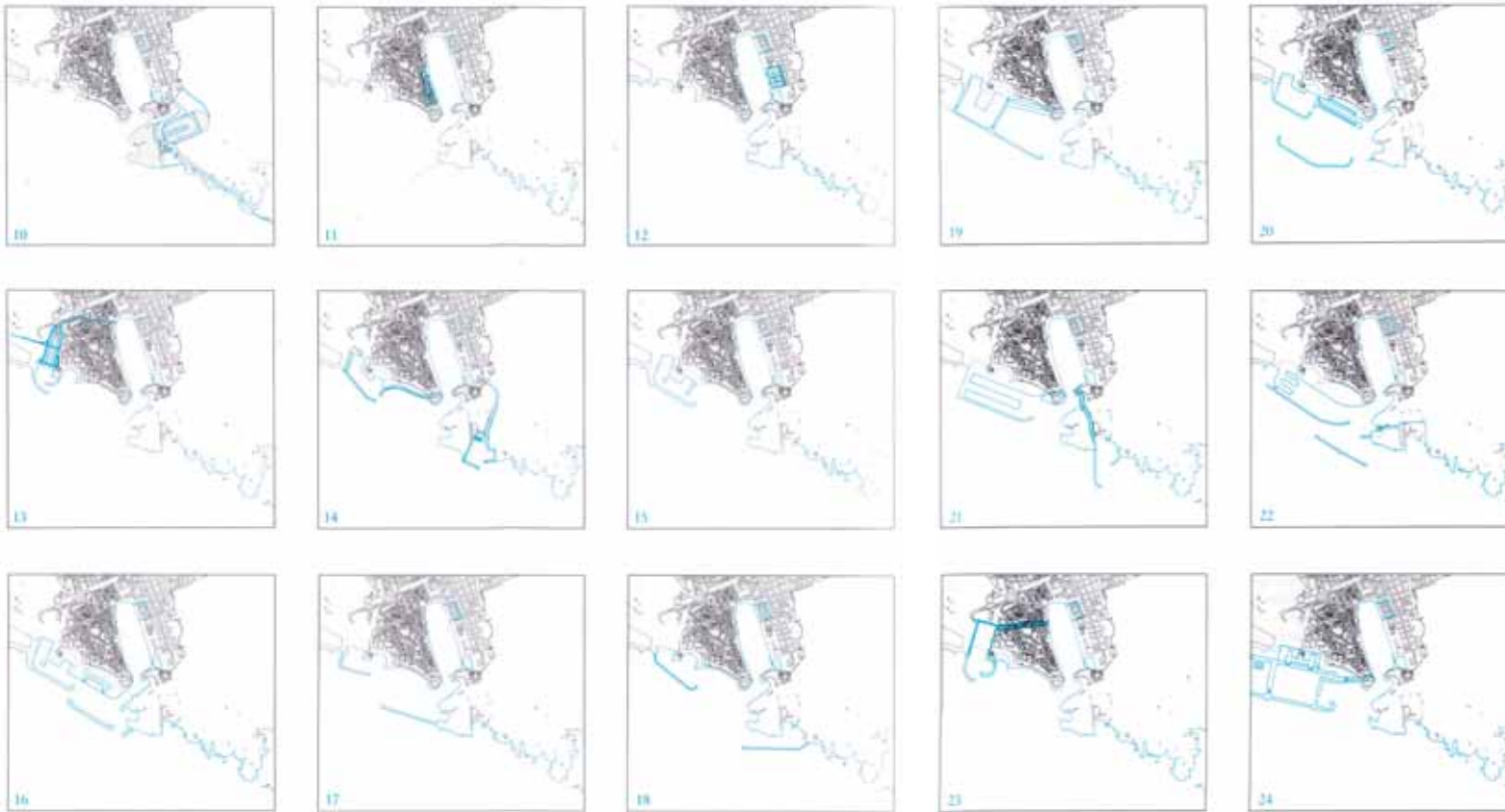
thus the (leisure) society on the level of young people appears as a fragmented one, without much friction luckily, but also without much exchange either.

the coexistence or "peaceful cohabitation" of marseille's young people in public spaces in marseille depends also on the existence of extended surfaces and their diversity. it seems legitimate to recommend for similar arrangements that that certain quality of variety be maintained, which means to create rather several pockets of available space, than immense anonymous and unsurveyable plains. these pockets can be appropriated by different groups in a more or less temporary, informal manner. this should allow the necessary relaxation in the relations between these groups, while their proximity and common use of certain infrastructure would produce occasion to deliberate contact and understanding.

sports and society



plages du prado; postcard: massalia concept, camille moirenc



projects for the extension of the port of marseille. these maps are not oriented to north. north is to the left!
ed.bonillo, with borruet, espinas, picon: marseille - ville & port, 1991

the maps on this page show on the bottom line the development of the *quai de la joliette*, which has been the core part of the industrial port of marseille, and the first extension of the port after the old port, which is contained in the small bay and surrounded by the city itself. with the loosening of this direct spatial relationship marseille also started to loose the notion of its unconditioned exposure to the mediterranean.

the presented (historic) preliminary projects for this initial step of extension for the city port show an amazing variety of forms; they reveal the relative lack of inhibiting conditions for the responsible actors, and an impressive spirit of enterprise or even utopic vision - one has to be aware of the fact that at the time of these projects everyone of them was in serious discussion for realization. managing a port city at any time in history required courage and vision.

successive extensions of the *quai de la joliette*,
1743 to 1943. these maps are not oriented to north. north
is to the left!
ed.bonillo, with borruet, espinas, picon: marseille - ville &
port, 1991





growth of the port of marseille, from before 1844 to 1990 . these maps are not oriented to north. north is to the left! ed.bonillo, with borruy, espinas, picon: marseille - ville & port, 1991

old port of marseille, ancient photography without date ed.bonillo, with borruy, espinas, picon: marseille - ville & port, 1991

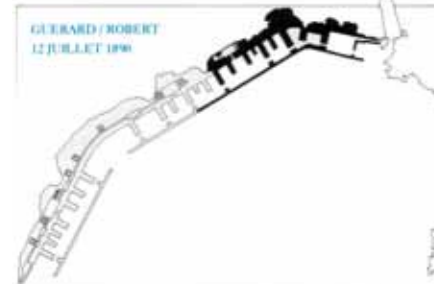
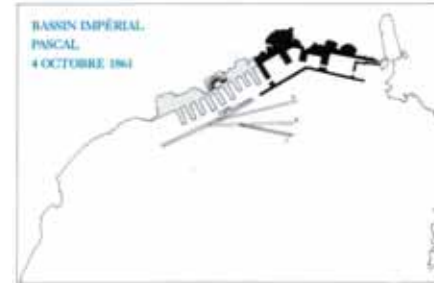
the sequences of growth of the port explain the seemingly simple linear logic of addition; it is simple compared to the inventiveness that is recognizable in the projects on the last page. without taking the functioning of the city into account, the coastline and neighboring terrain that it sealed off extended in parallel to the constructed area to the north of the center, never allowing direct access to the sea, and even blocking the view.

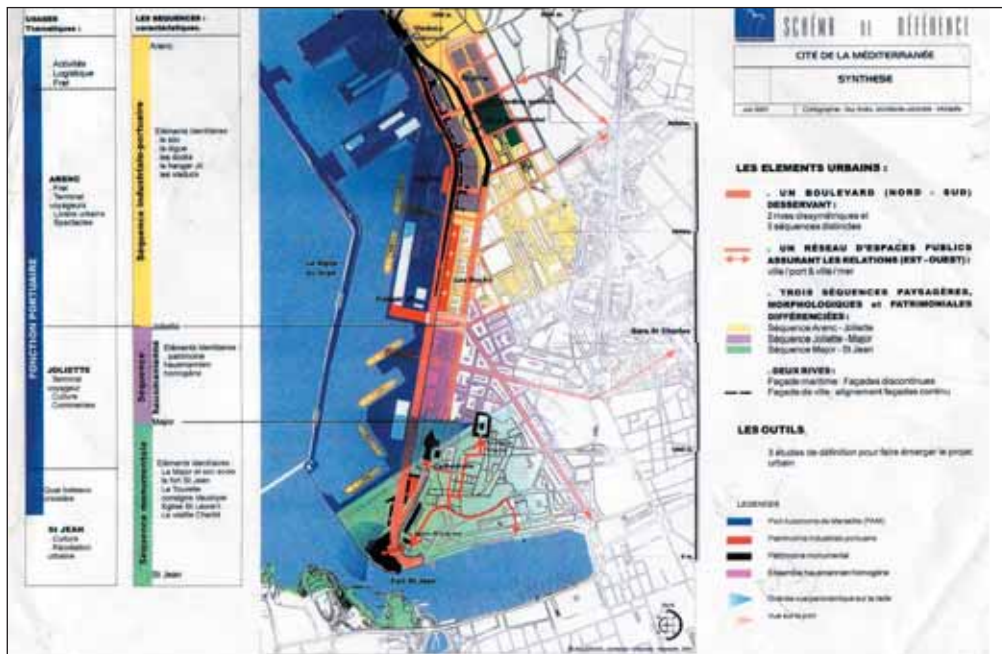
at times when only the old port existed and the quais in the middle of the town was still operating as vital commercial interface, the conception of the border to the sea as source of wealth and means of communication must still have been quite strong; there must have been an actual awareness of both the physical and the ideological conception people had of their role as port city inhabitants.

the size of the necessary basins gradually increased from extension to extension in order to allow for increasingly bigger ships, necessitating also several replacements of inconvenient older structures.

the present form of the la joliette dam to the high sea has not changed since its first construction, while its piers have been altered a few times. at present their operability seems reduced, because the port authority and the respective partners from the municipality of marseille are still pondering the various challenges the city and the port have to face in the era of "globalization", of integration of the european community and an altogether new perception of the mediterranean.

on the level of administration the PAM, the autonomous port of marseille, acts independently from the city as administrative entity: the port is a matter of national politics. the mayor, which means the citizens, therefore have no direct say in the decisions taken by the port authority. this also explains some otherwise strange issues of regional planning for the marseille area. only in the sixties the administration began to gain effective or operational consciousness about the existence of its hinterland, the necessity of collaboration for settlement, territorial masterplanning, and the establishment of transport and energy infrastructure for the region. these new dimensions proved to be manageable at the occasion of the international airport of marseille at marignane, which is in some 15 km distance of the city center. but at another occasion





serious problems arised from an incomplete vision of the interdependencies: the last extension of the *PAM* was also to take place in a similar distance to the city, in the golf of *fos*, next to the embouchure of the *rhône* river, which is a major european waterway that links the mediterranean to the rhine and the north sea. the new facilities have been successfully built, even if it meant that some of the biggest basins already prepared and constructed at the northern end of the inner city port (now the eastern port, in relation to the new *fos* port). the even bigger failure appears to be the fact that all new related commercial and industrial societies pay their productivity and revenue or trade taxes to municipalities that are independent of marseille - small villages that even offer residence to the people employed there, so that other taxes also “escape” from the city. marseille on the other hand has many obligations resulting from the presence of that huge single employer and consumer of resources, the port in its two sites. in the past decades marseille has therefore seen a steady decline of all previously dominant business activities that provided profit and employment to the city through the port. these general outlines of the regional, national and european interdependencies may, in combination with the information already given, explain the intentions of the new projects in course of realization, that have been developed in correspondence between the city, the port, the french state and the european community. so on the one hand the rise of tourism industry has been determined as a chance for the city with actually a lot of attractions, regarding cultural, the natural environment of the region, and the leisure facilities within the city. on the other hand the city tries hard to attract, by the same virtues and others, the virtually most desired class of companies or individuals, that is those from the ser-



graphics on this page:
publication of the *PAM*, *service relations publiques*,
by courtesy of
architecte jean-philippe lanoire,
lanoire & courrian, bordeaux

the information includes comple-
mentary measures implemented
by the *euroméditerranée*



vice sector. in addition the city and the port try to concentrate and develop their own logistical support, service and management recources to offer an optimal environment for companies operating in an globalized context. a new company, **euroméditerranée**, has been founded with financial and structural support from the european community and the french state, and settled directly in the core of the concerned area: at *place de la joliette*, in the former restructured dock buildings, where also the other new service sector companies have established their offices. at the same time the long awaited TGV-line has been completed, so that the appeal of marseille in the national context is further heightened. the planners recognized that the corner between the old port and the new port, at the old quais of *la joliette*, which for many years now had been flat waste land, represents a crucial area for the potential of the city. they had been abandoned by virtually everybody and seemingly invisible to the average marseillais, except for the frequentation by the arab bathers seeking precisely this relative isolation. the port authority and the municipality exchanged a part of the terrain and agreed on a concerted intervention involving the university of marseille, a museum, and an important restructuration within the port. in addition to the ferries to north africa corsica and sardinia presently berthing there, the reconstruction provides moorings for quite large cruising ships up to 300 m length. to this purpose the whole dam of the *quai de la joliette*, the *digue de st. e marie*, will be widened and a new terminal building will be constructed. as a result the city center will for the first time ever be within reach by foot for guests of cruisers, which until now had their moorings at the northernmost end of the *PAM*.

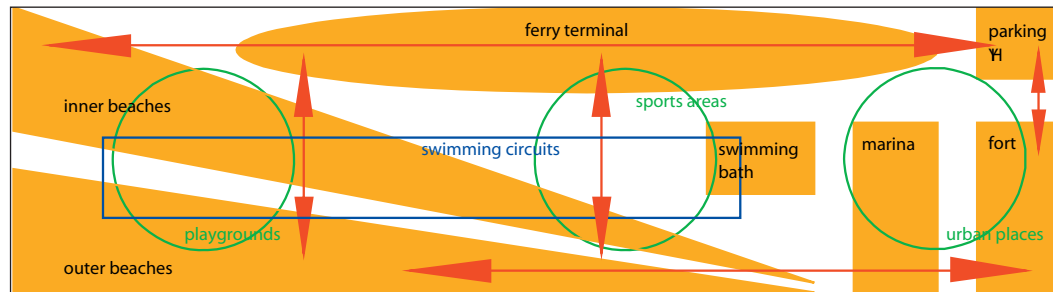
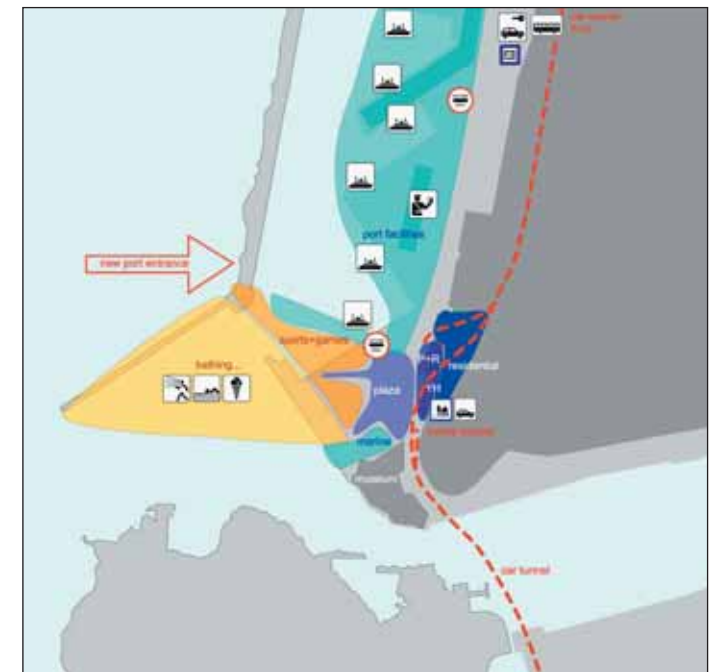
	mauseumfort	terminal	stufe	major	strand	jährtre	leuchtarm	hartweich	kreativ/bekim	hochwiedrig/wechselhaft	engpässe/verschieden	bedeut.ruhig
restaurant	i	f	a	e	f							
aprendenberge			>strand		x							
zimmerdecken					x							
schwimmbad					x							
parthaus												
rock	x	x										
kleinzeile		x										
kaldernerlagen		x										
studien		x										
barke												
tam aussicht												
schützen												
trappe	x											
tanzställe												
kino												
elektrifikation distanzieren												
busbahnhof		x										
sportplatz fußball												
wiese												
kletterfelsen												
radfahrbahn												
schienen												
kleinbahn												
stiller maltpies												
erkekostation												
kantine		x										
wärsteland, chipssiedbad		x										
kinderspielplatz												
dielenböden unterkunft												
bartha												
marktplatz												
telefontermine												
leuchtarm												
restaurant												
sternstation		x										
freileitung												
rolschahwelen hakenabwelen												
diendromenade												
gitarhaus		x										
basketballplätze												
bergenen												
terrasse												
beil café												
budget hotel												
stunden hote für hängplätze												
rufkürne für hängplätze												
rolschahwelen hakenabwelen												
diendromenade												
gitarhaus		x										
basketballplätze												
bergenen												
terrasse												
beil café												
budget hotel												
stunden hote für hängplätze												
rufkürne für hängplätze												
keine bürne												
insel	x											
formwelt												
reparaturwerkstätte auto schuhe gepäck												
baumengrucht												
legnweise für müller oder mit lindern												
rosarium für mare wude												
nympheion für lakespace												
aquarium												
pool	x											
brunnen												
brunnenen fontaine												
parkplätze	x	x										
promenadetrasse												
sonnentrasse												
vaporario angedröße		x										
studios für experimentier												
lieux de culte islam juden christen		x										
vermählung		x										
wahren kategorien C/D												
öffentliches bad wasserbad funktionales bad												
arena		x										
verleih ankunft achtund person		x										
check-in		x										
gepäck		x										
terminalparkplätze												
auditorium												
chiercafé												
fast food	x											
tourist office												
	inverhofanden	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.	eruehr.

consequences

2.

Thomas pyynchon: gravity's rainbow

we are obsessed of building labyrinths where open land and sky have been: ever more complex patterns on an empty paper. we can't stand the openness - it horrifies us. (...) if any comfort - something religios, if you like - lies in paranoia, yet there is also a kind of anti-paranoia, in which no thing is connected anymore with any other thing, a condition that many of us can't bear anymore."



preliminary masterplan of the site: la joliette, the piers of the north africa ferries, the transplanted port entrance and indication of the functions to be installed.

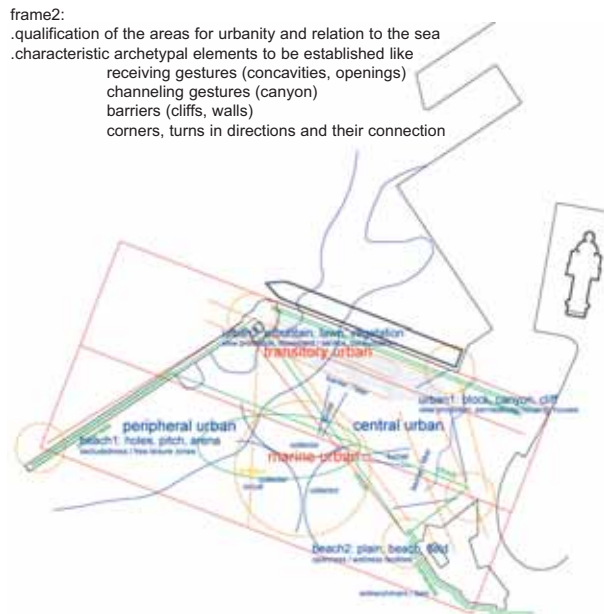
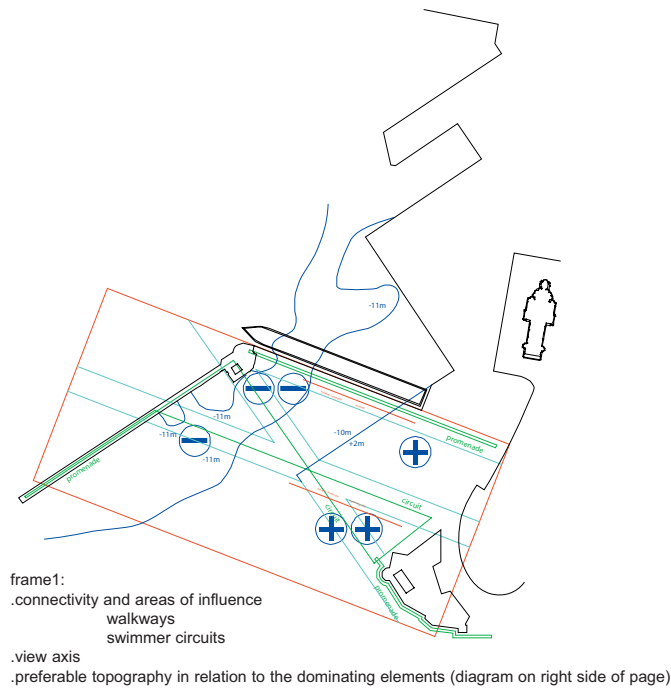
diagram without proportional relation to the real site: park & ride facility, youth hostel (YH), the fort st.jean which houses the programmed museum, bath and beaches

the new scheme takes the existing planning into account, insofar as the dam, that protects the industrial and ferry port, will be extended to give place to bigger cruising ships. one of them is to be accessed from the *la joliette* terrain, which necessitates the construction of a large secondary terminal, the principal one being further to the north. the basins have to be deepened to allow for ships of bigger draft (actually they are about 7 m deep between the piers). the rest of the *la joliette* area has actually become property of the city of marseille.

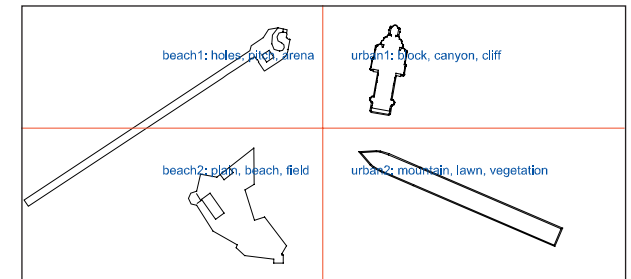
it will be transformed into a leisure zone that contains several smaller and bigger areas that allow for a temporary appropriation of local user groups, thus giving opportunities for freely chosen contact at the zones of overlapping. this concept is derived from the observations about the fragmentation among the young population in marseille.

next to the existing terrain (to the east/on the right side) are more "central urban functions", like swimming bath, bazaar, parking with park & ride system, restaurants and the terminal entrance, the new museum inside the fort, the youth hostel, the yacht club belonging to the marina. close to the cathedral and to the ridge of the hill of the *panier* quarter, new housing buildings are devised which in average keep the top hight of the ridge (+1), in a way not to block the view from the esplanade to the sea. these houses are planned in order to extend the residential usage of the *panier* (that also houses the mentioned "informal" economic activities), and its suptler morphology down from the hill to the terrain claimed from the sea - a smoother transition between different usages shall thus be realized.

a small marina will be inserted next to the fort, in order to enhance rentability of the total of installations on the terrain. the new water inlet reestablis₂₀



hes the formerly impressive corner position of the fort on the entrance to the old port. urban life receives a new sub-center at the plaza in front of the bath. there are devised all sorts spaces for services like restauration. the ship terminal right on the edge brings in the element of the arriving and departing persons and their needs. it contains surfaces for intermediate parking of cars before embarkment, all border control and travel service facilities. its upper surface is a smooth continuation of the planned landscape, freely accessible. a walkway on its ridge on top allows general view on the panorama of marseille and the sea, while the high bulk of the mooring ship itself is partly hidden by it. mainly bow and stern are visible, even from beyond the fort, as has carefully been assured. at the stern of the ship, which is positioned in a way as to point with the opening of the roll-on roll-off device right to the plaza, passers-by can observe the always repeating event of the disembarkment of the cars on the ferry. from the plaza people shall be able to use various ways to start the exploration of the laguna landscape. also the swimming bath offers on its top surface the prolongation of the event landscape, a slope down to the beach covered with sand, gravel or actual pavement. the bath is to contain a salt water basin of 50x25m and a sweet water basin of 25x12.5m, while on top there is another 50x25m basin, but with sweet water, in order to give the possibility to bathe in open air in proximity of the salty sea in sweet water. the swimmer circuits are also accessed from within the swimming bath, as it is a service at admission charge. the same goes for the adjoining beaches directly at the bath, while the rest of the beaches in the artificial laguna are freely accessible. between the end part of the dam (that has been integrated), the beaches at the foot of the higher areas, and the outer, lower dams on the riffs extends the inner basin which offers calm fresh sea water to the swimmers.



the morphologically dominant elements are the dam of *st. marie*, the cathedral *la major*, the fort *st. jean*, and the terminal respectively the ships mooring there, doubtlessly some of the biggest objects in view.

frame3:
 superposition with view axes (yellow), fast foot connections (red) between the hot spots of the new terrain (yellow circles), and cyclist connections





the montage shows the approximate disposition of surfaces that are created on the site of the former J4 terminal of *la joliette*. the old entrance to the port has been filled up in order to allow the access to the southern end part of the dam (on top of the image), hereby giving the direct possibility to view the panorama from sea level. missing from this representation is the project to open the new port entrance next to the old one.

photo: PAM, service relations public





graphic shows the surface formations in section



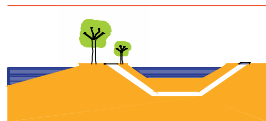
surf caving



canyon



island



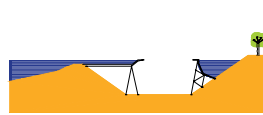
deads' island



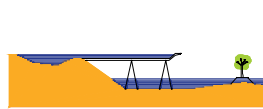
entrenchment / dam



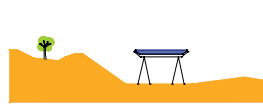
grate / bowl / half pipe
tunnel / filter / screen



water basins / water bowl
laguna inverse 1



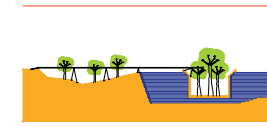
water basins / water bowl
laguna inverse 2



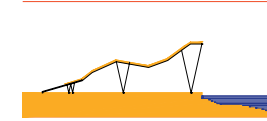
p anorama swimming circuit



water tide basins (+/- 0.3m)



garden pontons and valleys



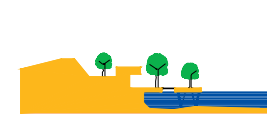
quai hill



virtual / non solid topography



under water tunnel



hollow shore



wave filter and surf protection
for sand beach

graphic shows some archetypical surface formations that are to be realized at the indicated positions. one general concept is the fragmentation of the available area to obtain smaller pieces with a variety of transitional elements. another guiding concept involves the inter-section or of water and land, in order to create a longer usable beach line, and to allow for a certain folding arrangements of the ground. the material of the ground is interchangeable with the holes like a figure/ground-play of a relief.

3.

references





great distances and enormous surface extensions within the areas, that are nevertheless considered as coherent units
 numerous linear elements parallel to each other, so that there are zones of transition rather than border lines
 several layers of information, probably of differing validity, superimposed like a palimpsest

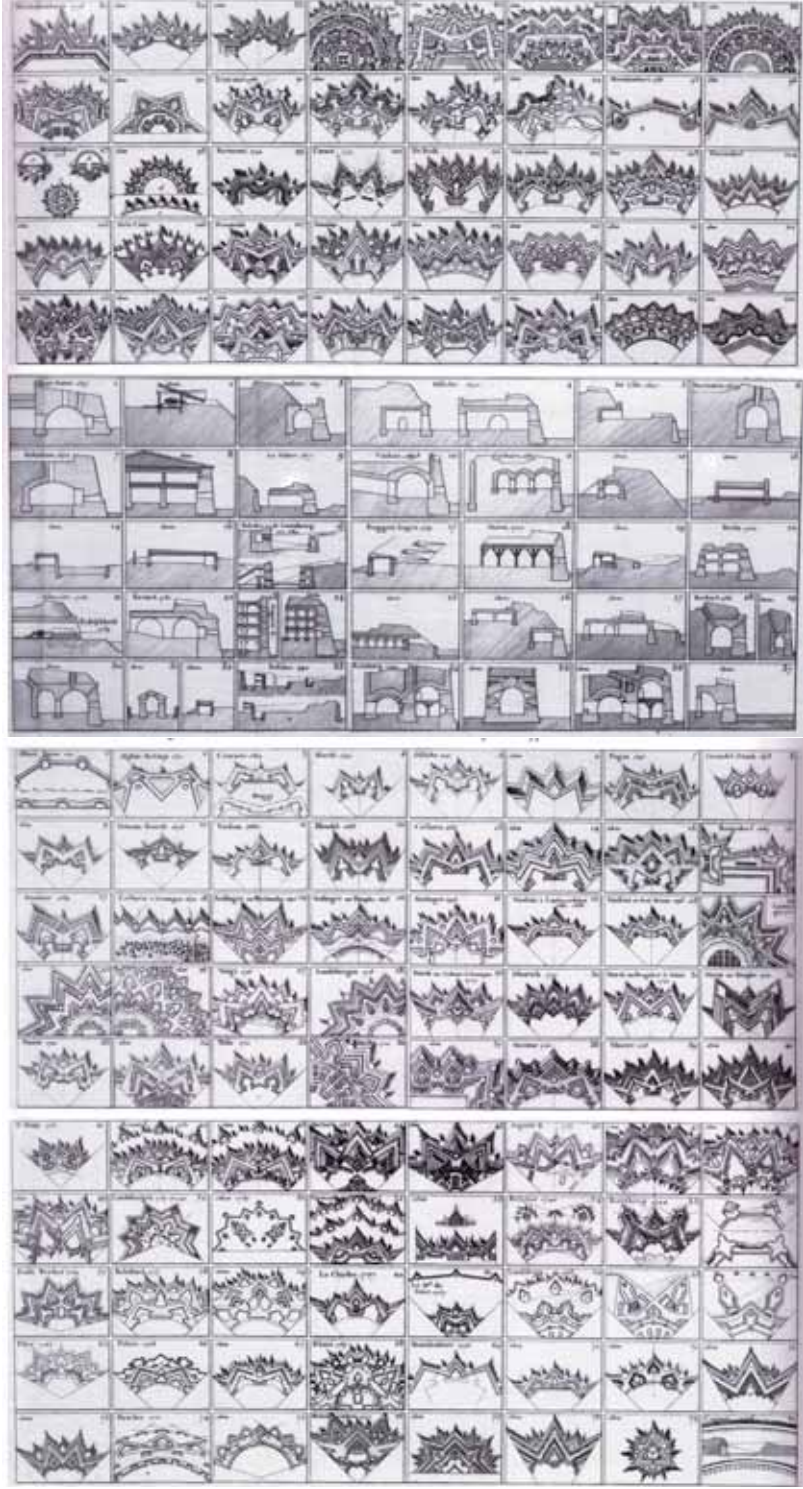


temporary guide lines that influence strongly the daily life, but are regardlessly changed, without any effort

light movable boundaries and margins, repositied elements



movable boundaries, repositied elements



"parallèle des systèmes, parallèle des casemats"; two engravings in copper by charles francois mandar (1757-1830), paris 1801: synoptic representation of manners to construct fortification over 300 years

military defence architecture shows a peculiar play of figure/ground. the study of optimized forms seems to have been conducted quite systematically

method of sebastien le prestre de vauban (1633-1707), models of von zastrow, weimar, 1827/28



method of school of meziere with improvements by louis de comontaigne (1695-1752), around 1764
models of von zastrow, weimar, 1827/28





michael heizer: displaced/replaced mass.no.2



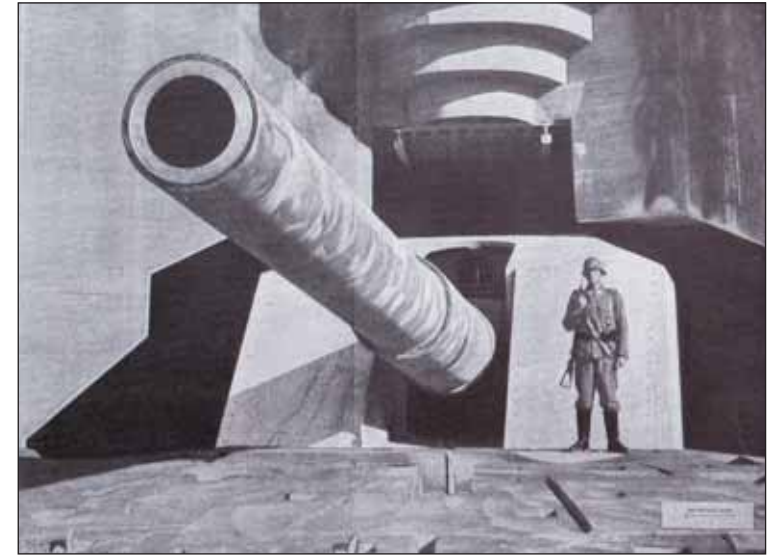
michael heizer: displaced/replaced mass.no.2



michael heizer: displaced/replaced mass.no.1, nevada, silver springs, 1969



michael heizer: complex one/complex two/city



at the bottom of the image there is a meandering pattern that served to dissipate the impact of an eventually incoming projectile, in order to cause a premature detonation
canon battery at german atlantic wall, "lindemann" 40,6cm
photo: bundesarchiv-militärarchiv, koblenz



SESC - fábrica da pompéia
lina bo bardi, 1977-86
restructuration project of a former factory that has been converted to a cultural and sports center. the photo shows the main access way which is designed to create the atmosphere of a beach - in the middle of sao paulo, the megacity far from the sea.



"the supreme instrument" samrat yantra, jaipur, india
 constructions to carry out astronomical experiments and studies; they are materialized celestial geometry

<http://www.fi.uni-hannover.de/vorstellung/images/19a.jpg>



<http://pavil-s.i.kp.uni-bonn.de/WWWhome/jpu/june/wellenbrecher.jpg>



"architecture by subtraction"
 bernard rudovsky: architecture without architects



paul virilio: bunker archeology, 1975



tyre profiles: water conduction and traction

truck tyres in rows on the left indicate that criteria for tyre design seem to diverge considerably, or that the conditions that concur are so different, that an optimization for one results in a radically different solution from that of another optimization

pads of rubber touch ground, provide grip and traction
rims in between channel water.
compromise of large pads for good grip and large channels for quick evacuation

the equilibrium is shifted in favor of the grip, because intelligent channel geometry facilitates the evacuation in smaller channels

while water in middle zone is evacuated towards border, the wheel turns with velocity. the water can only evade in direction of the course of the car - hence the wedge or tree figures.

asymmetric wedge forms for left or right wheel

middle zone needs grip to provide traction
- hence more contact surface

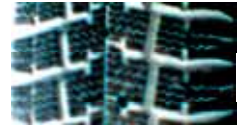
tractor tyre variations showing different traction and water conduction preferences, but show the same wedge figure

racing car tyre with central uninterrupted channels and assymetrical wedge figures

conventional car tyre for the winter shows the wedge form mirrored on the middle meridian in order to obtain an S-shaped curve; this curve itself is "disturbed" in the middle zone of the traction part

the image in the middle presents the minimum case of dense central zone with much traction surface and border zone for channeling the water that is evacuated from the contact area.

left and right image are examples of disturbed S-shape/ wedge figure





morphological principles of tyre profiles
from the promotion texts of goodyear

“the centerline rib provides
responsive on-center handling”



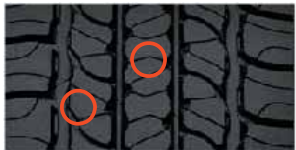
“intricate blading in the ribs and
centerline improve handling,
noise reduction and all-season
traction”



“staggered curvilinear blades
enhance forward and lateral traction
for excellent performance in rain
and snow”



“the wide outer shoulder delivers
responsive handling
and superior treadlife”



“staggered circumferential groove
and see-through grooves enhance
forward and lateral traction for
excellent performance
in rain and snow”



“deep blades and grooves extend
treadlife without sacrificing
performance”

<http://www.goodyear.com>

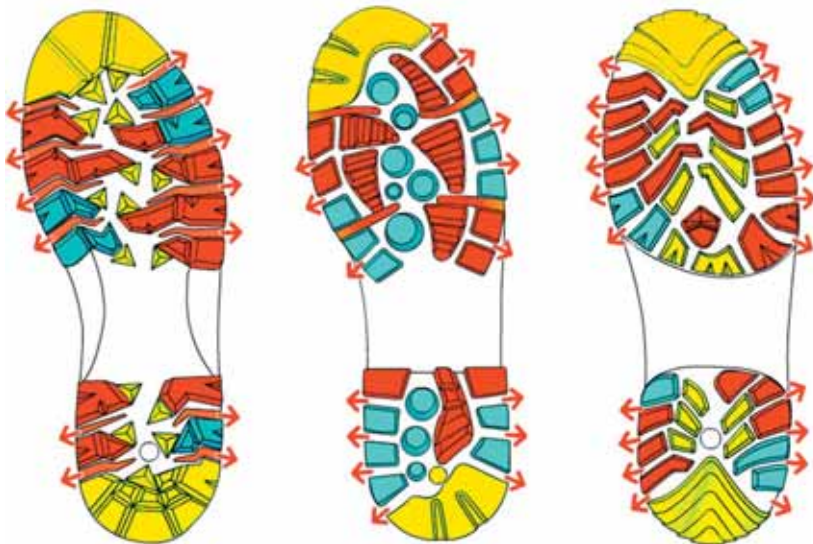



fan shaped channel geometry,
supposes that the evacuated
water from the central area arrives
quickly enough at the border of
the tyre to clear the field



this tyre has some of the charac-
teristics:
central channel, accompanied by
lateral channels which are slight-
ly inclined to conduct the water
towards the next, still more incli-
ned channels; laterally deep radial
channels to take in the evacuated
water from the central area, finally
still more inclined lateral channels
to provide an exit for excess water
collected in the deep lateral/radial
channels





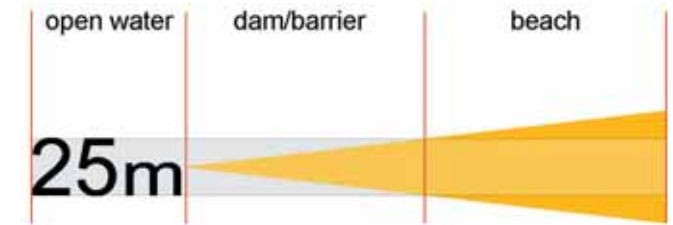
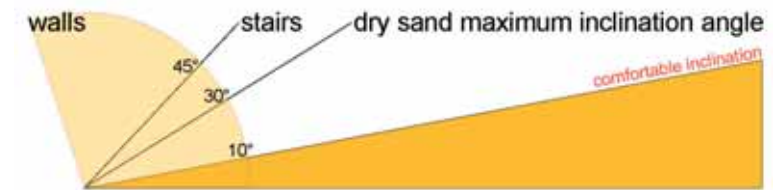
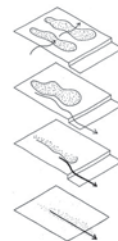
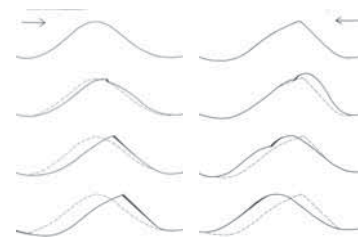
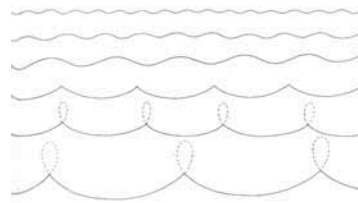
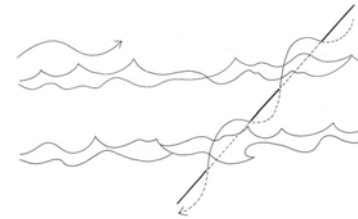
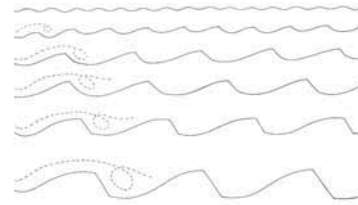
-  **RESISTANCE AREA**
-  **STABILIZING AREA**
-  **ADAPTATION AREA**

4 . tools





material properties of sand



the diagrams shows the optimal dimensioning of the dunes for the purposes of the *la joliette* project

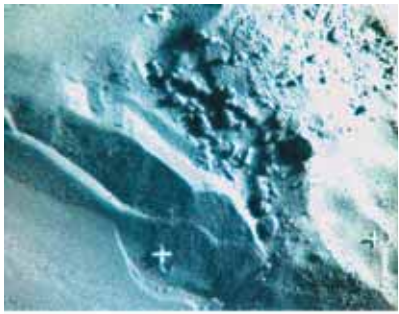
sand dunes have a characteristic behaviour in how they wander, driven by the wind, and how they are shaped by it. it is still impossible to explain scientifically the chaotic processes, but the observations displayed here offer a recognizable pattern. because of the uniform grain size, the inclination of the dune flanks in the sahara for example never exceeds 31° . they behave like very slow water waves, well observable where the wind is constant with one prevailing direction. then the dune form is asymmetrical.

if the wind changes direction, a bulge develops, and after a while the dune is reversed.

otl aicher: "nature doesn't know any stable states, only the constant of the pendulum, a physical notion. even a asphalt track gets waves in the desert."

also with sand, where the wind does not meet any resistance, it develops an up and down rhythm.

otl aicher describes three levels of waves: big dunes have hills and valleys, and their surface is again rippled by smaller waves. this corresponds partially to the notion of scalability in chaos theory - geometricaly describable phenomena (which may be referred to as *gestalt*) can be nested into one another at different scales, in theory infinitely (see mandelbrot tree).



uneven strokes with a short stick, pouring few drops of water on the dry sand. blow away some upper layers of dry sand



controlled strokes with a T-square, piling up a kind of dune; the repetition of the strokes over the same area produces these forms that look like folds in textile



freehand effort to produce a smooth plane lead to forms that seem to be all sorts of other forms - land art, art deco mural, or satellite photography of industrial zones



deliberate intersection of two different wave patterns could be interpreted as lava; this essay proves useful in respect of the surface formations that were functional for the application at a determined scale on the site of the project. the pattern corresponds to the criteria of fragmentation and a play with convex/concave - involving the element of water

the sand model was used to better define the geometry of the landscape at *la joliette* (the sand pit, image on the right). it introduced new rules to the project process. depending on the tools applied for the "sculpting" on the material, very characteristic formations emerged. the conditions of classical and chaos physics that govern the behaviour of the sand were complemented by the specificities of these tools and the arbitrary "geography" that was forced on the landscape in the pit at a scale of 1: 500. the results however were readable virtually without scale. the effect is striking: it is difficult to interpret the images regarding the (measurable) scale. only proportions count. frei otto called this method "material computing"; it is possible to "calculate" problems that would be far too complex for the human mind or a computer, in the sense that even the parameters are not entirely known, let alone their functions.

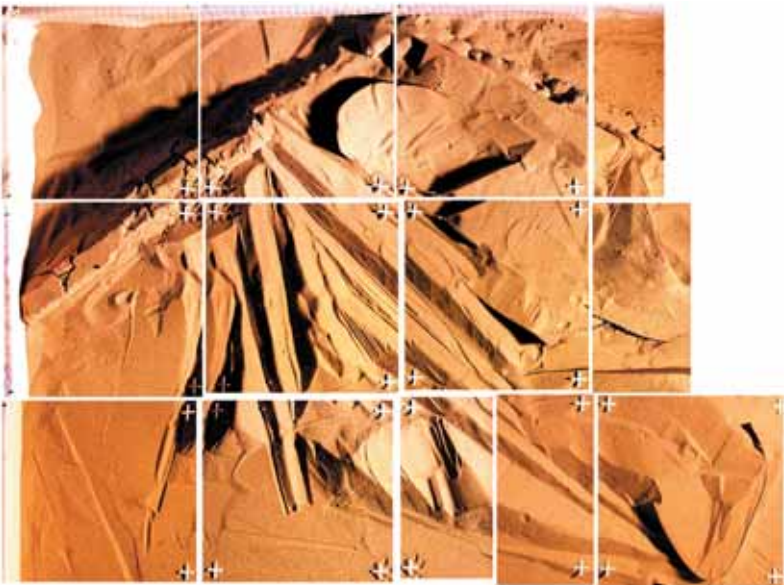


a sand pit as model

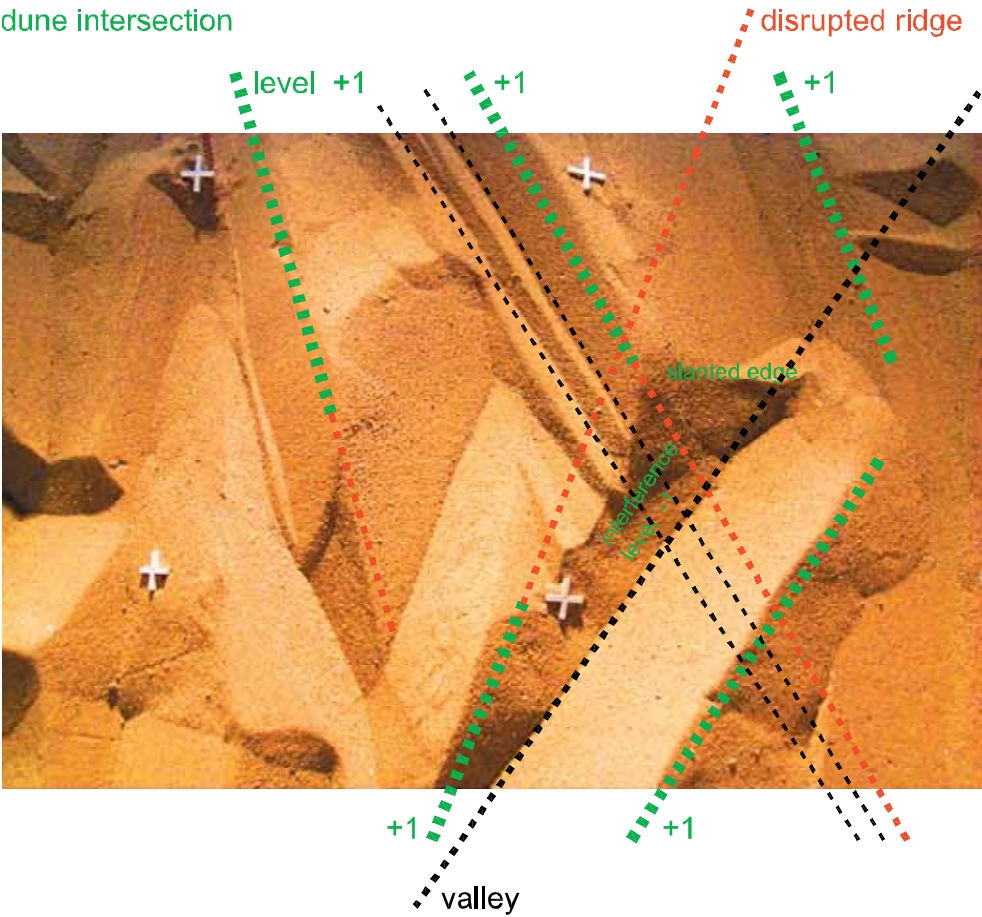


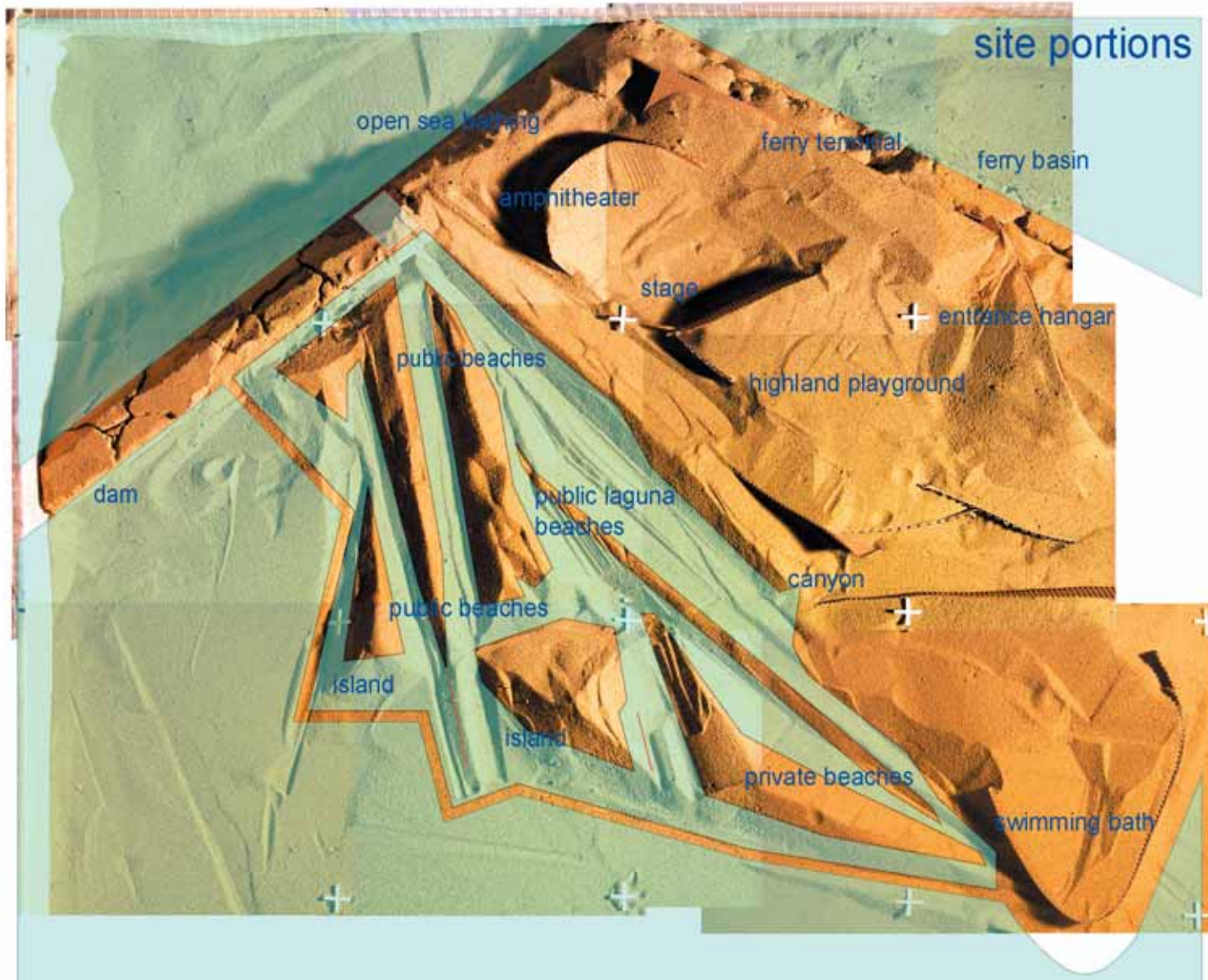


understanding the intersection of dune hills and valleys, dependent on the tool:
 in difference to the abstract model, one has to deal with the material left over at the intersection of two ridges.
 for the rest, dunes seem to behave like foldings



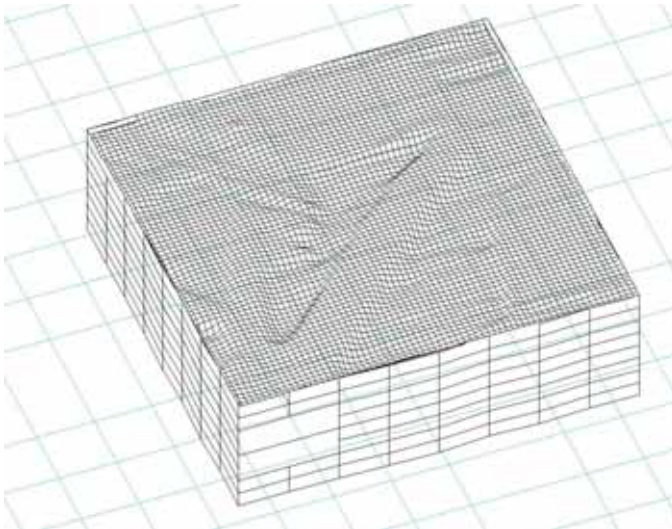
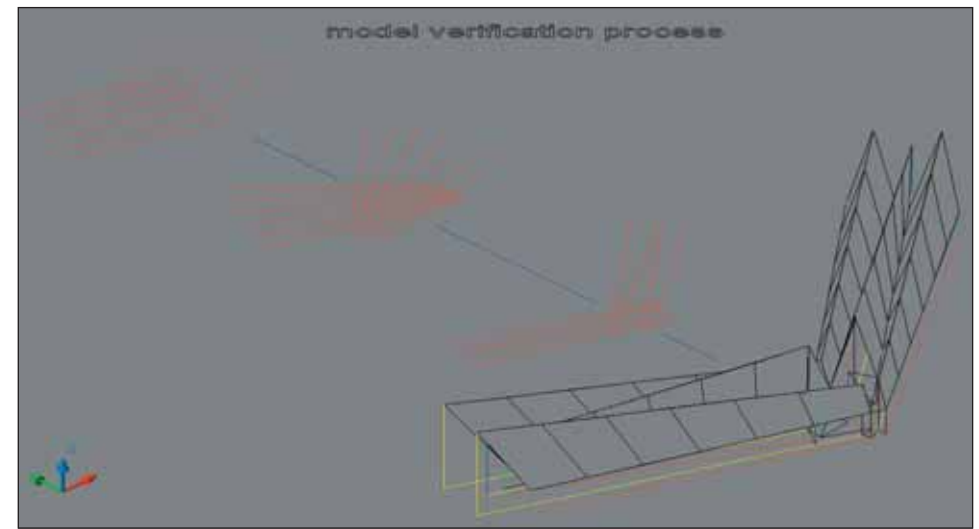
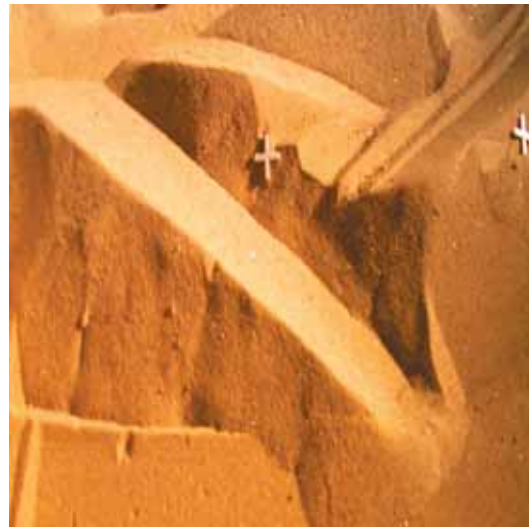
collage of the normalized parts of the complete sand model





preliminary project model

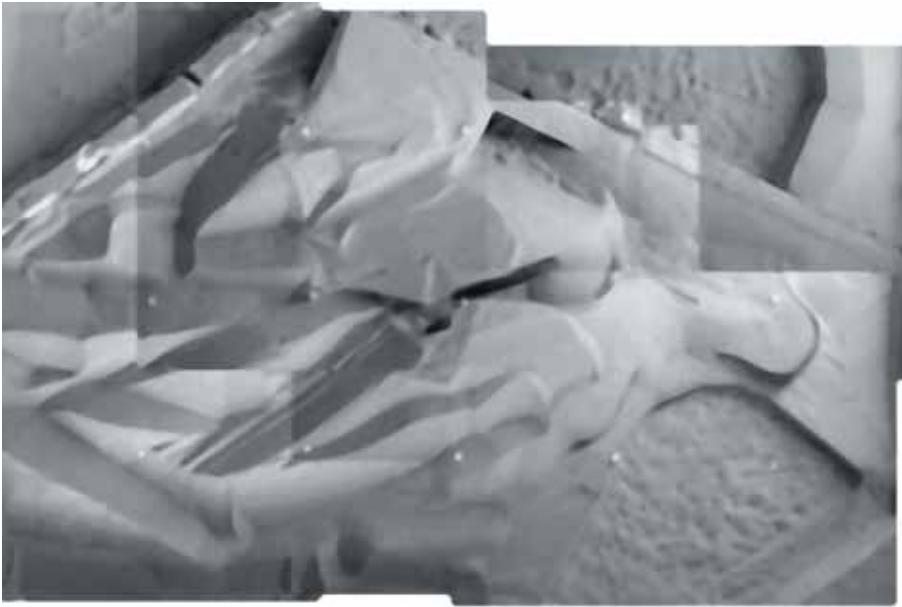
overall view, normalized, of the model with approximate representation of fixed (architectural) elements, like the terminal and the swimming bath. the water level is indicated with the light blue transparent layer.



transfer to computer

experiments to either reproduce or imitate the processes of the sand model in the computer. it was an important criterion to achieve the folding in the way of these alternating wave tops and wave valleys.

also the transfer of results directly from the sand model to a digital model was explored. the images and graphics on the left side show the process of "displacement" of a solid 3D mesh in *formZ*, a procedure that interpretes a greyscale bitmap image in function of its bright/dark contrasts; this information then is translated in high and low elevation of the 3D mesh. obviously the result differs in a systematic way from the intended geometry, and it seemed ineffective to try to adapt either the model or the lighting when shooting the images or to doctor the images before transforming them.

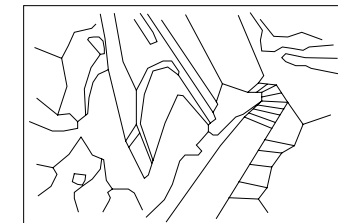
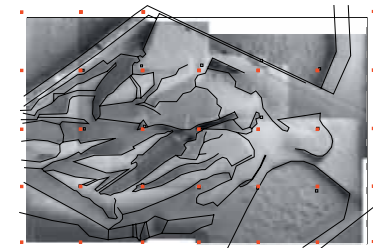
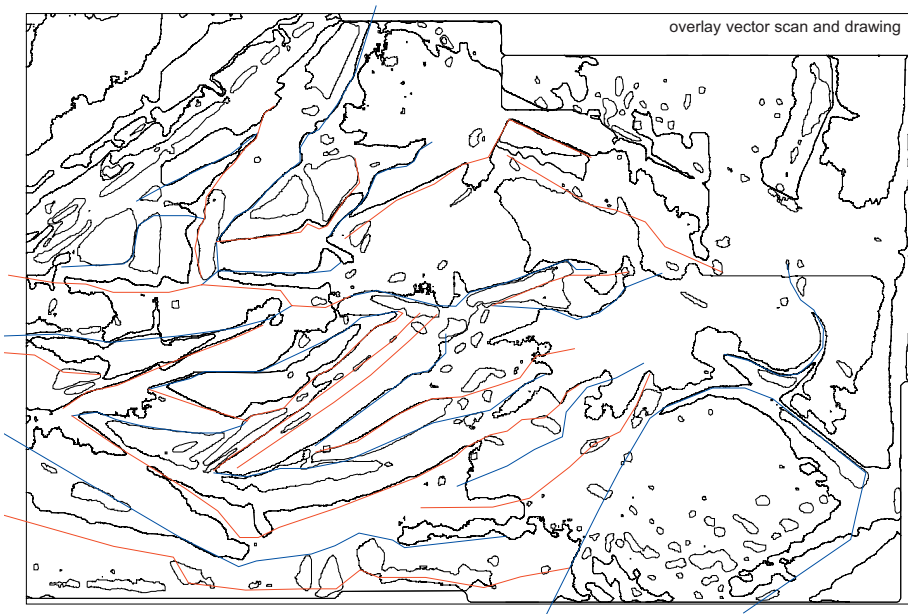


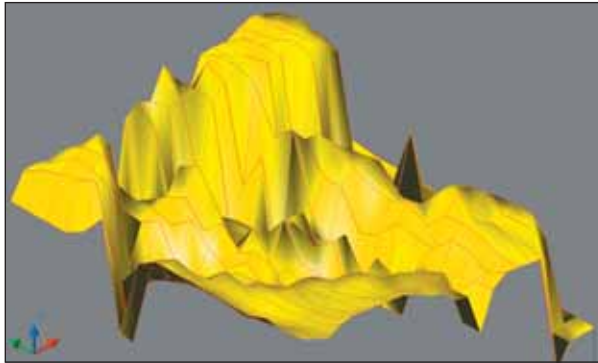
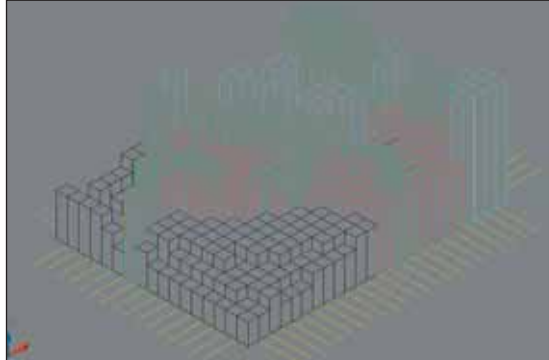
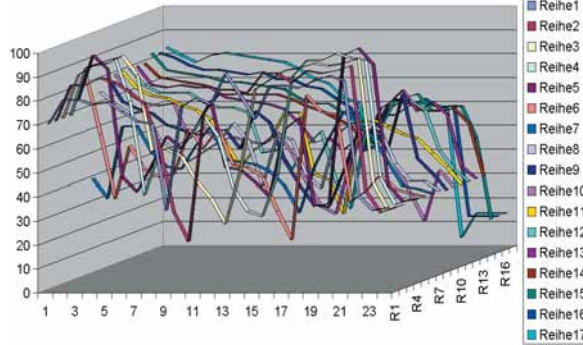
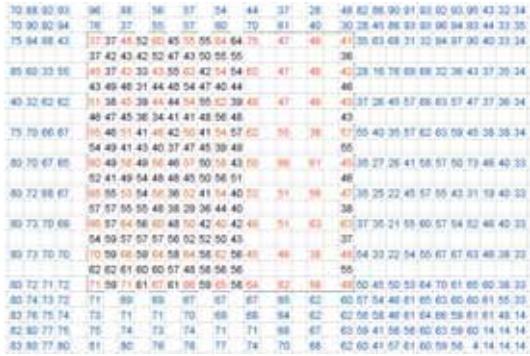
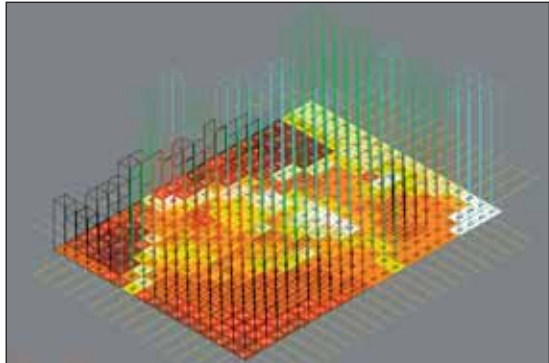
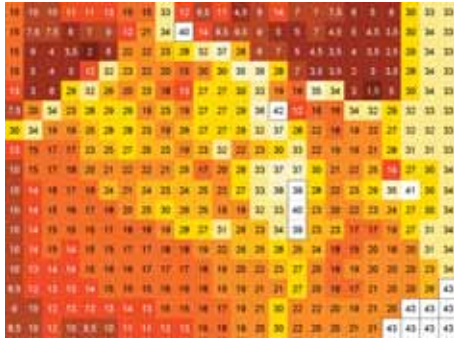
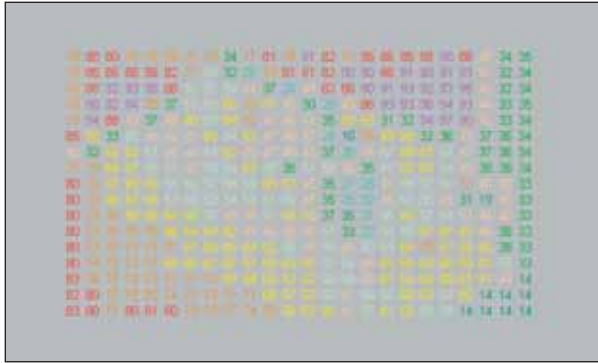
transfer of qualities like expressiveness

other attempts to transfer the sand model to the computer model:

vectorization, redrawing of a scanned image.

the value of the authentic texture itself, the atmospheric information contained in the images that were treated, began to impose itself on the further definition of the method. the sand, as many other “found” textures or materials of relevance examined during the course of the experimentation, has a richness of information, an enormous bandwidth which can’t be reproduced or imitated. it has to be integrated in an irreducible form in the process that leads to an understanding for the spaces and surface qualities to be created - or, to be less precise, but more adequate: an understanding what has to be done in order to create the conditions and the opportunities for the development of an equally rich and complex environment - in the real scale of the project.



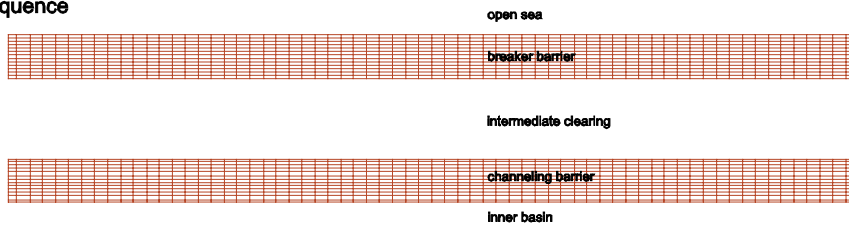


the most successful attempt to introduce the sand model into the computer was to simply measure the topography on the basis of a grid which was in the following densified in the crucial central area, in order to have four times more accurate proportions.

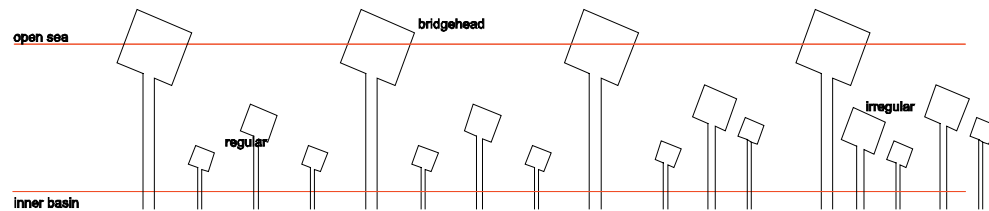
the final model, which shall be presented later in this book, was produced in an entirely different manner, but the results from this phase played a crucial role for it.

Assembled Element

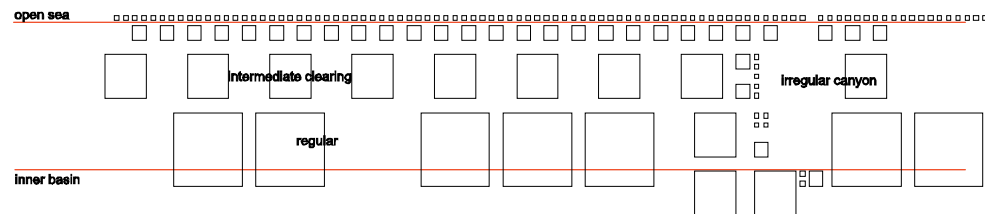
barrier sequence



bridgeheads for fishermen and tourists



surf and wave breakers

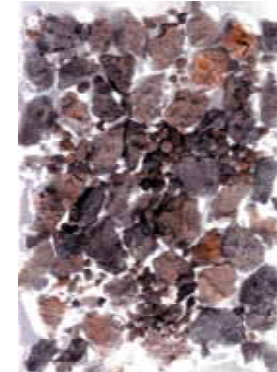


the conditions determining the features of the tile-like profiles that take the place of the box lids are derived from present usages of the fishermen, tourists and others who seek distraction.

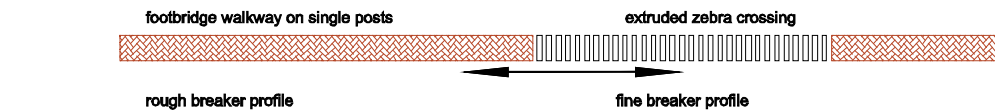
first of all, the line of assembled elements breaks the waves, receives and contains a certain mass of water in constant turbulence in its intermediate zone, and then guides the water with the rest of its energy through to the back side (into the inner basin of the lagoon).

the users (like the fishermen) should be able to approach safely the zone of turbulence the waves are broken by smaller elements, like knobs on braille writing, gradually growing to a size a multiple of the initial one. all hollow parts of these lids/tiles are filled up with rocks also applied in gradients, the small ones first.

scale sequence of rocks in channel strips ▼ decreasing strip width
▼ decreasing rock size



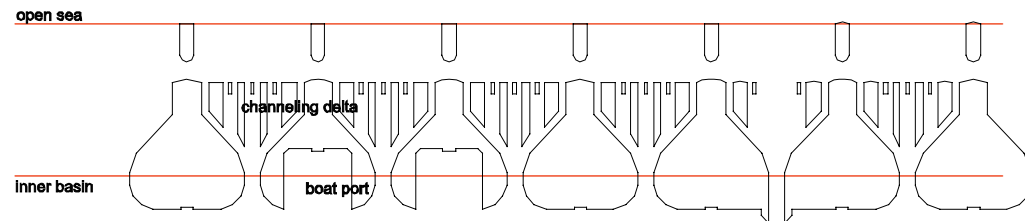
transversal connection



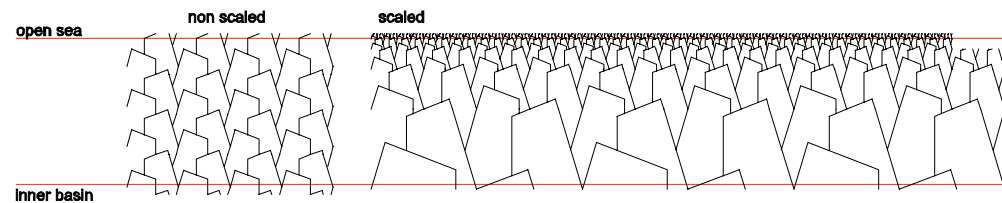
the assemblage of the elements must provide the possibility to cross it laterally and longitudinally.

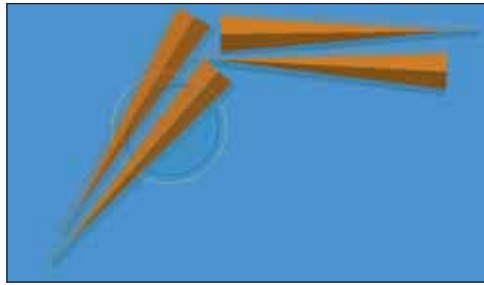
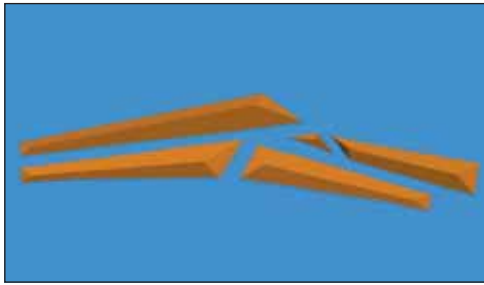
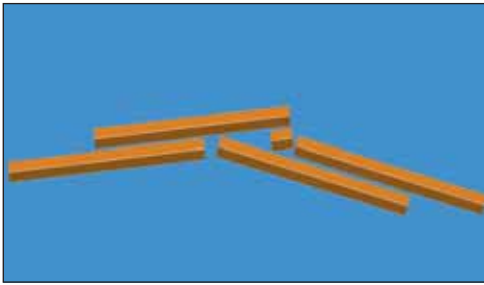


channeling deltas

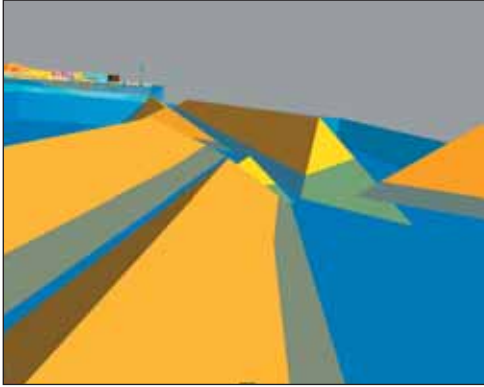


surf and wave breakers as scales

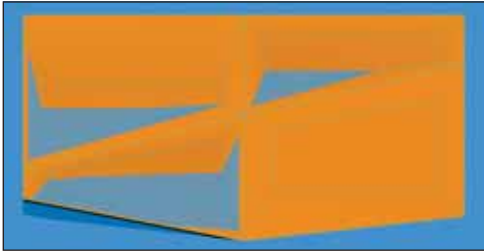




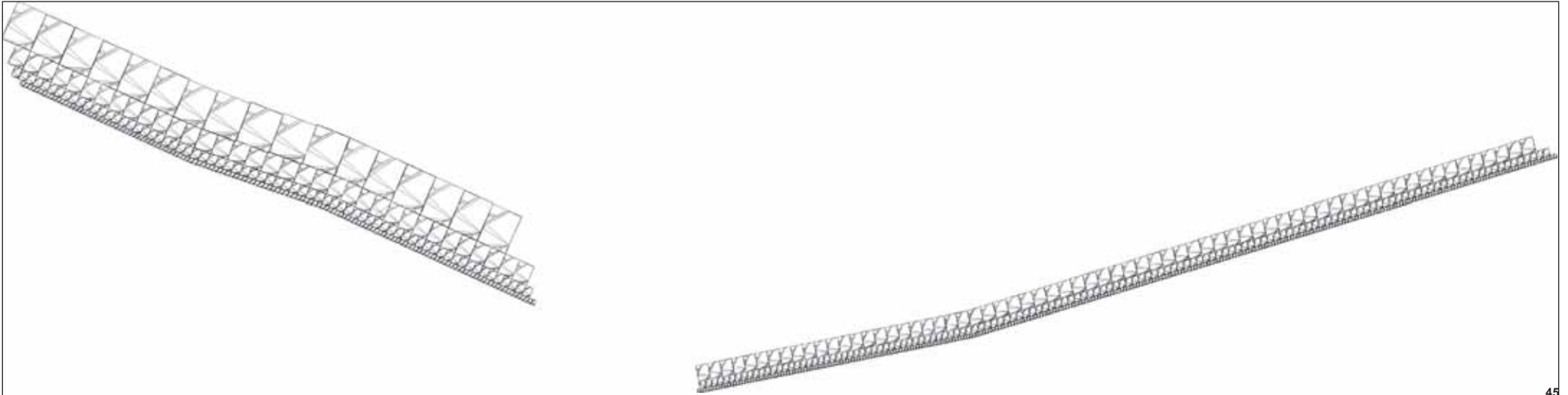
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are not orien-
ted to north.

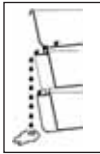


the logic of beach geometry - mobile prefabricated concrete pontons carry various sand "sculptures"



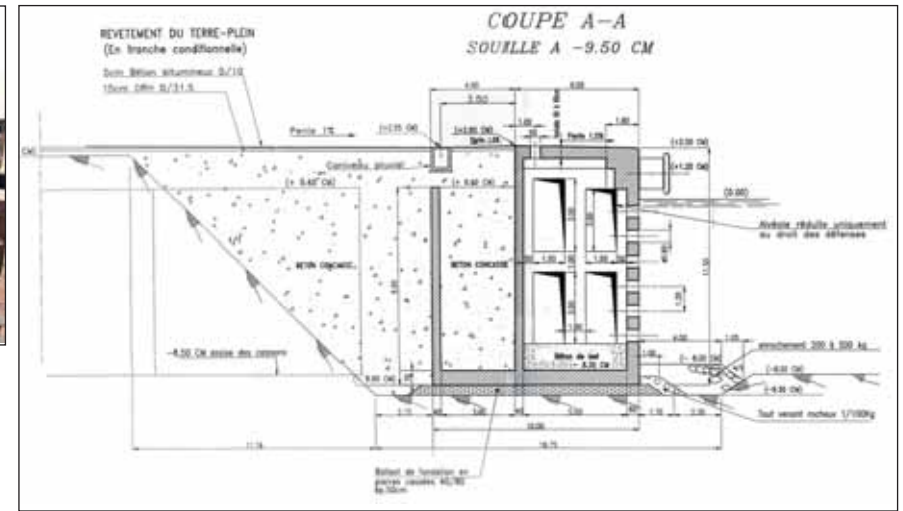
the complete geometry of the dunes and the dam between laguna and the entrance to the old port





<http://www.marseille-port.fr/site/travaux-joliette/images/CAISSONSFORME.jpg>
<http://www.marseille-port.fr/site/travaux-joliette/caissonquai.htm>
<http://www.marseille-port.fr/site/travaux-joliette/sortiecaisson.htm>

<http://www.flytpontoner.se/type-vj.jpg>

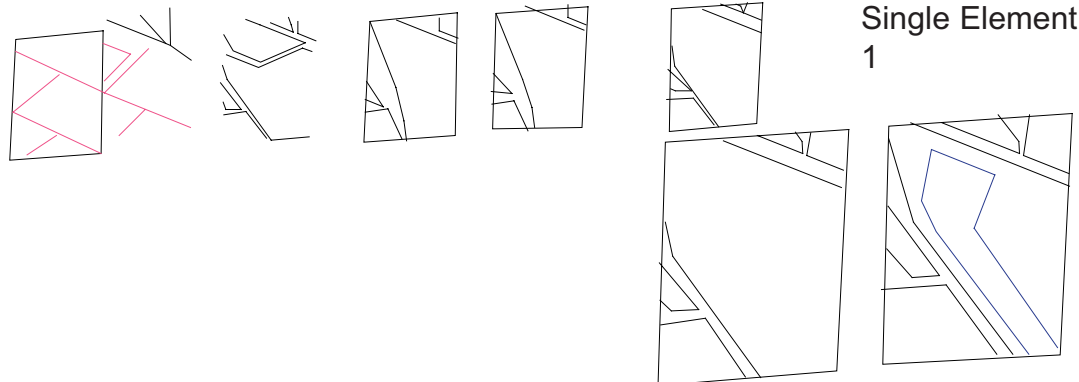


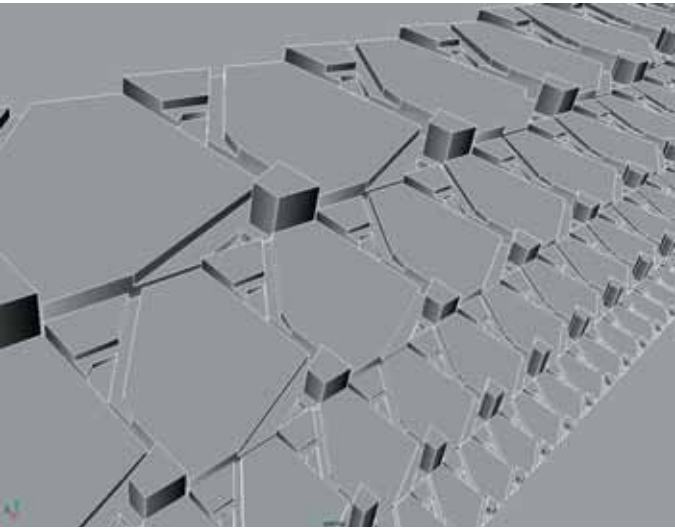
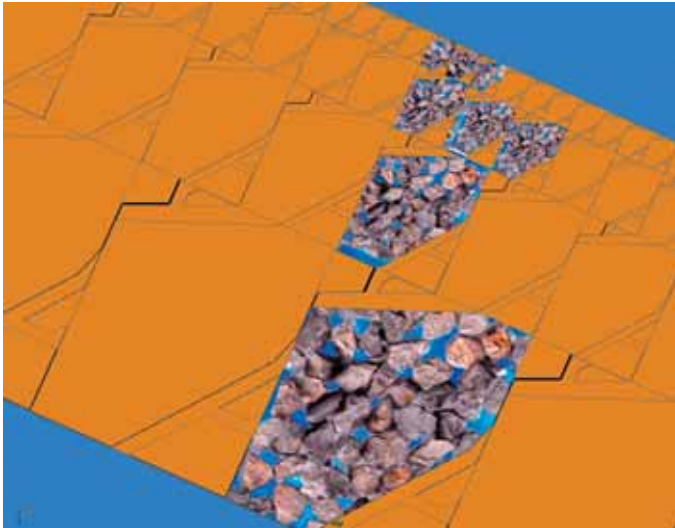
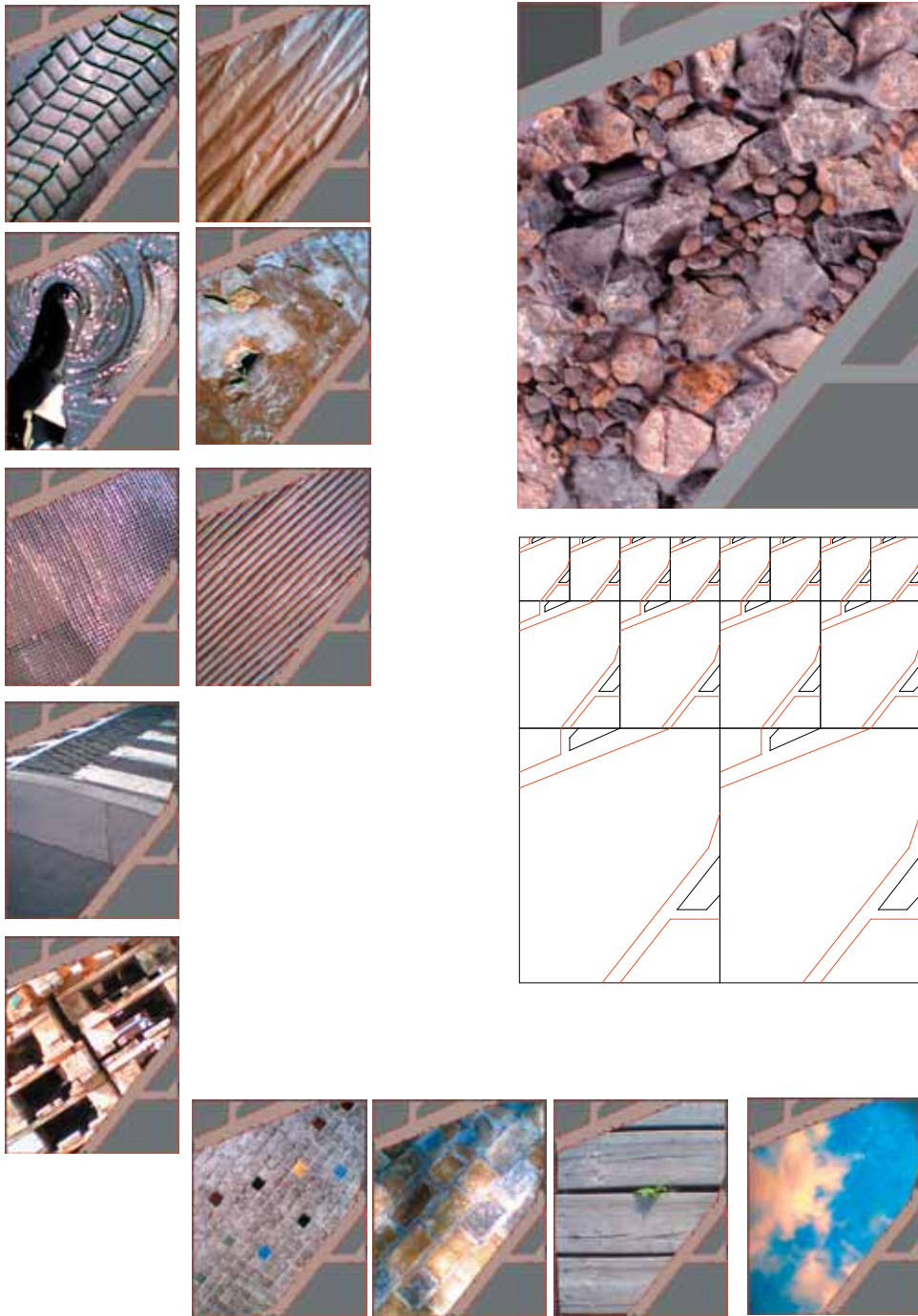
prefabricated concrete element, "caisson type jarlan", remodelage des quais de la joliette 1999, PAM

in marseille and in other port cities, quais in the port area are built in a rather simple way out of prefabricated concrete elements. the waves from the high sea are already sized down by wave breakers and dams. so these elements are intended for quais which rise about 2m above sea level. they are cast in dry docks as boxes whose upper side is left open. the dock will be flooded and the swimming boxes are dragged like pontoons to their destination, where divers had already prepared a stable soil under sea level. after the positioning the boxes are filled up with earth or other heavy material, sink and sit on the soil; it remains to connect it tightly to the other already placed elements, and to treat the surface at quai level.

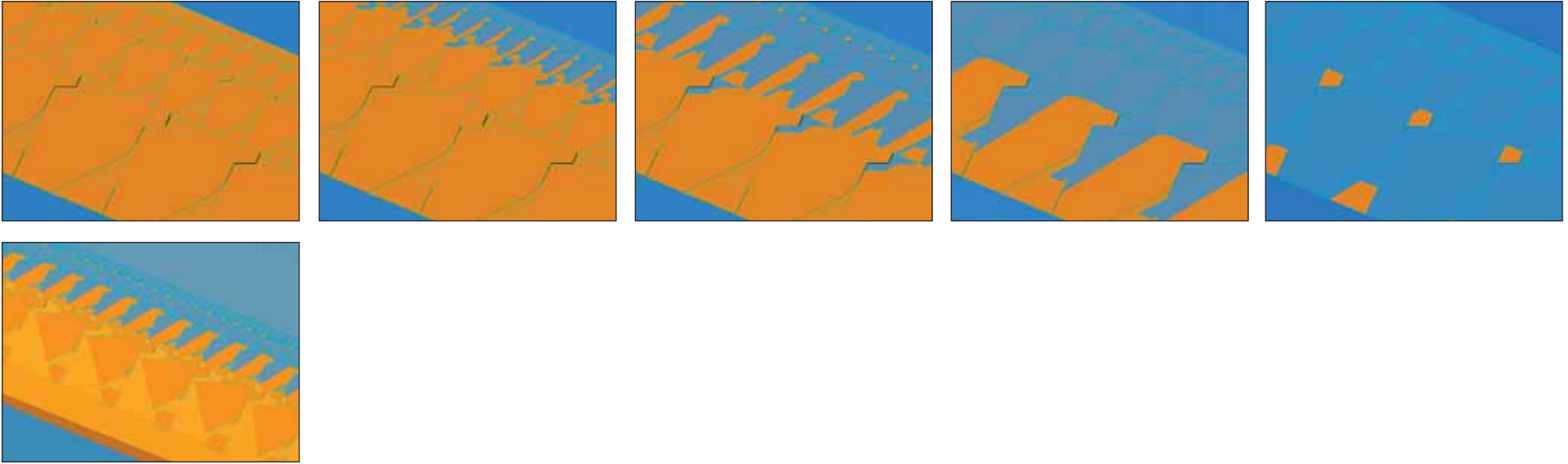
more sophisticated elements include two or more chambers in the box and a front part which is perforated in order to break the remaining force of the incoming waves which disappear in the hollow space behind.

the top parts of these box elements can also carry different lids, that fulfil more functions and vary depending on position. they could be used not only to build quais, but also to build dams in zones of various intensity of the surf, actually as wave breakers and as adapted work place for the fishermen of the area. these fishermen are to a large extent already present on the site, even if the area at the moment is not really attractive for several reasons. the fish gather near the shore because of the surf and despite the fishermen, because in the surf the water contains particularly much oxygen. it seems interesting to produce such a surf in larger dimensions, for the fish and the fishermen on the one side, and in order to supply fresh water to the basin of the laguna on the other side.

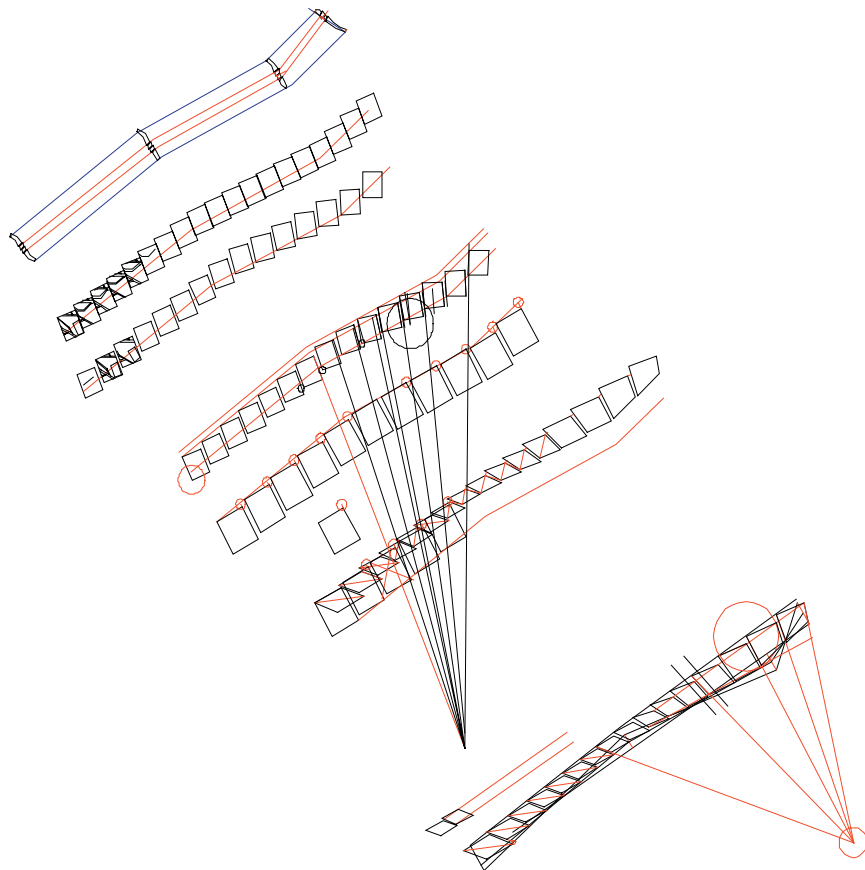
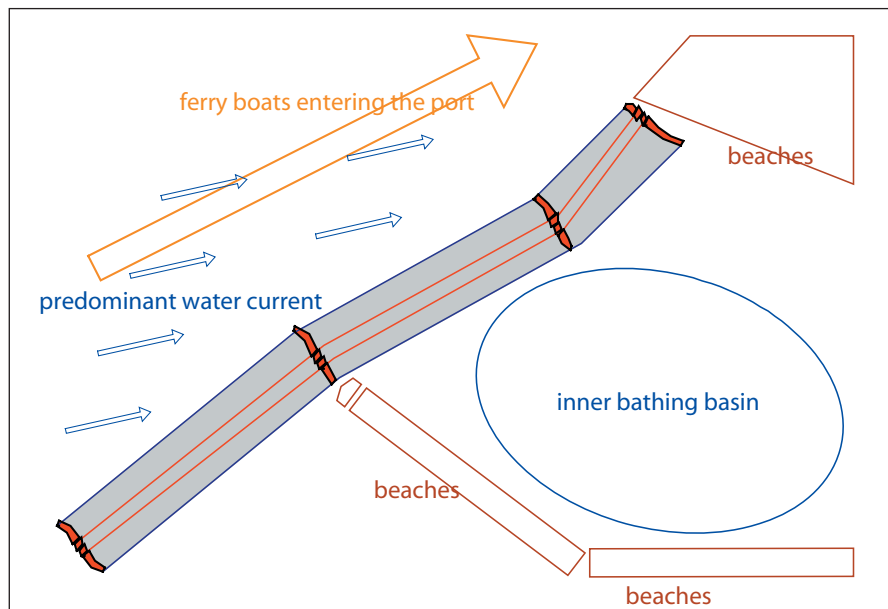




the tile elements can contain different textural materials that can also be varied or exchanged. their geometry allows it to assemble them in successively doubled (halved) size; they are scalable. they offer the vantage point, the channeling and the wave breaking, and a transversal connection for pedestrian.



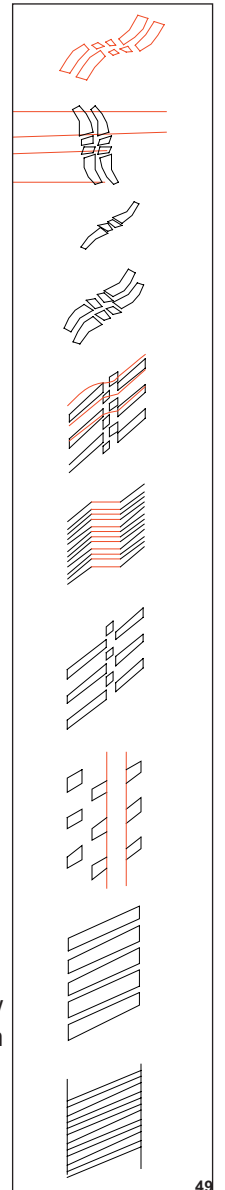
the assembled elements at different water levels (max - min = 1m).
from behind the freely blown sand floods the tiles.

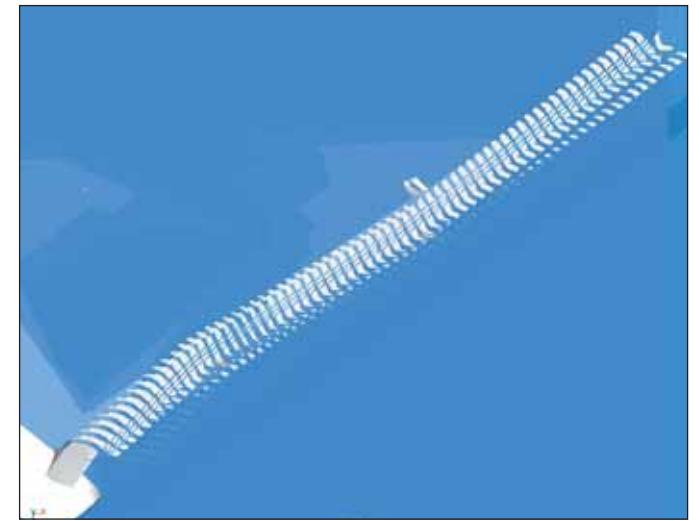
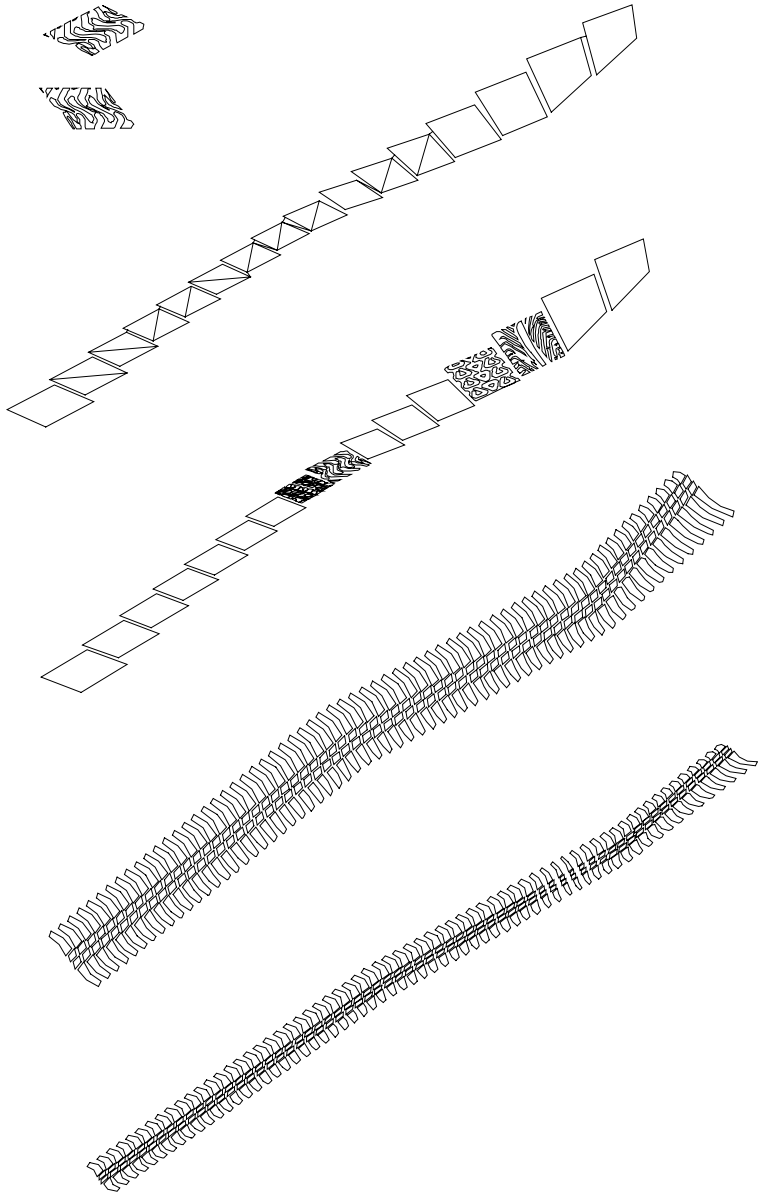


the diagrams explain the conditions prevailing along the outer dam that has been made accessible from the terrain and which shall be restructured. there is the extension along the inner laguna basin, a part of which is close to the new entrance to the PAM that the entering ships come quite close and the waves they cause will hit the dam. without them the normal water current out-side is slightly different.
the objects in red color represent the single profile elements that have been derived from the studies about the car and boat reliefs.

disturbed S-shape curve: the assemblages on the left show the complete dam

Single Element
2





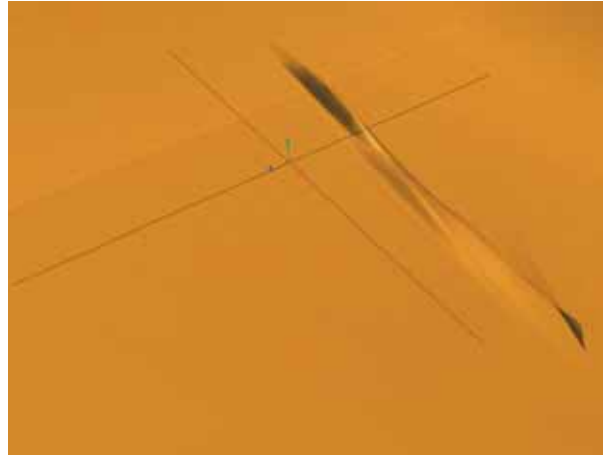
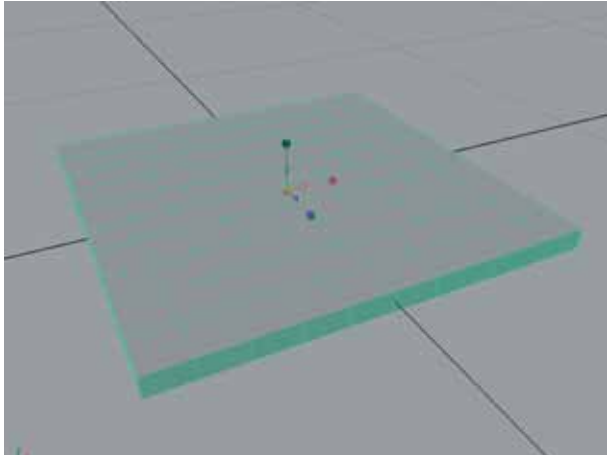
the outer dam in concrete elements.



1) no gravitation at all

http://www.starwars.com/databank/starship/xwing/movie_bg.jpg

perso.libertysurf.fr/pitch9/ Star%20Wars%201.2.jpg

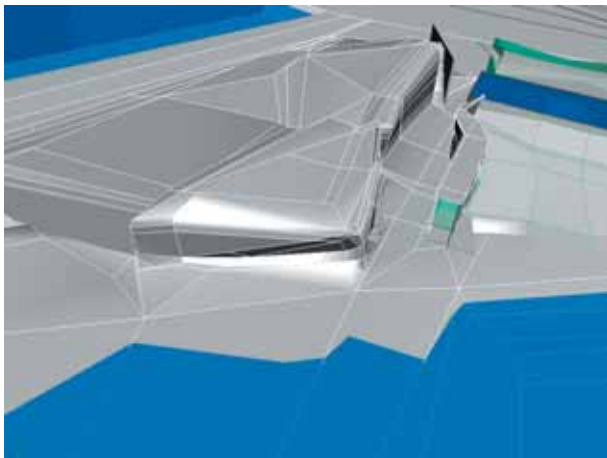


the actual definition of the site geometry was realized in 3D in the computer, a process that again introduced new rules to the general detailing of the project.

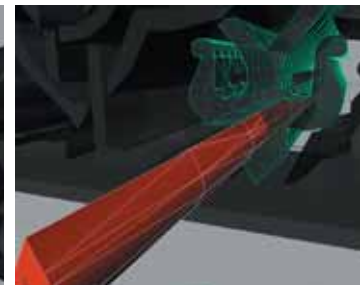
the applied software has certain characteristics common to modelling software, but to an extreme extent, that is strongly sensible when working; fact which is recognizable in the result.

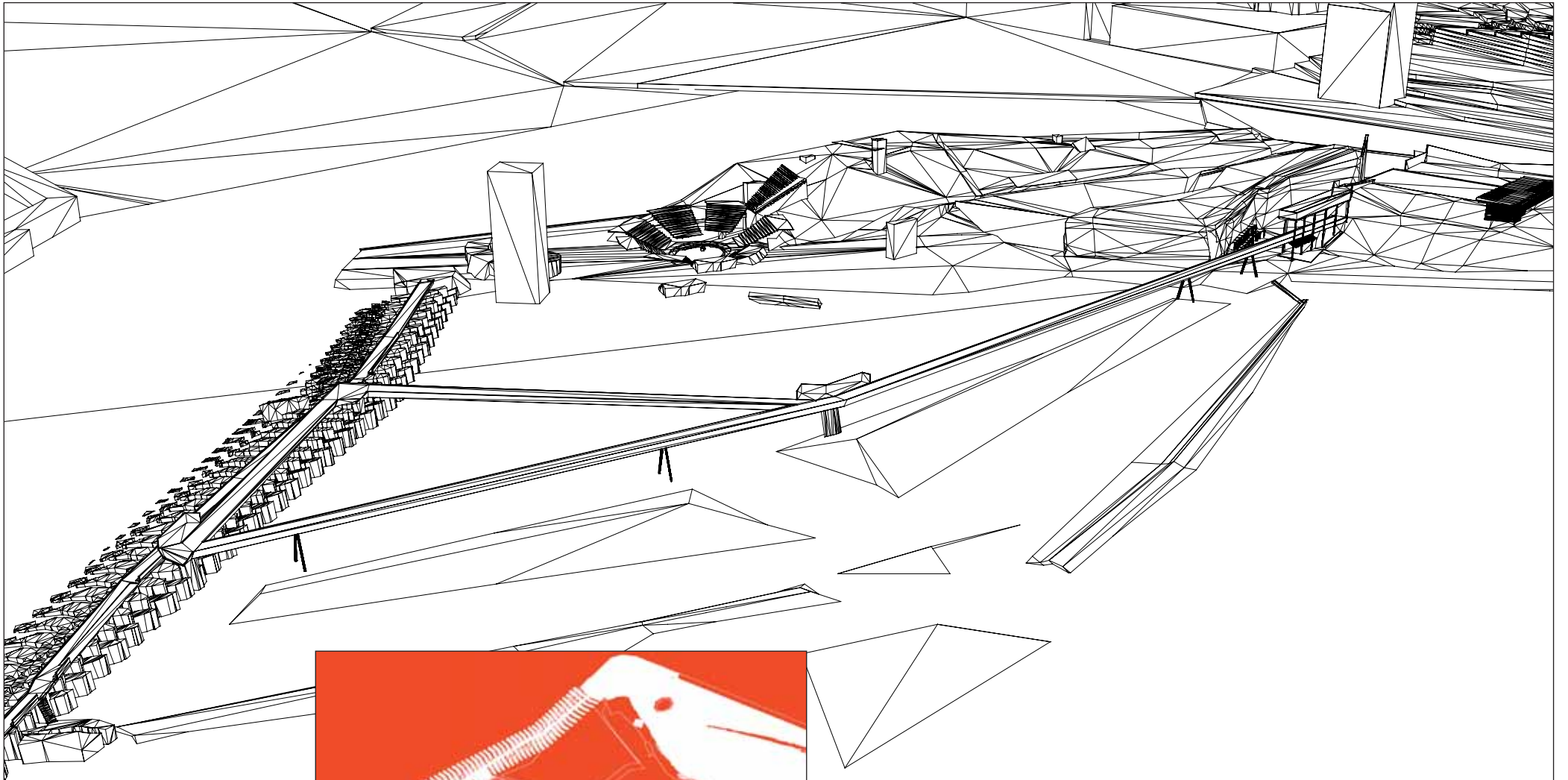
2) no solids, but surfaces - landscape bending, tweaking and folding. to make a hole, one doesn't dig, getting a pile of material, but one punches in...

before after



3) no orientation, or at least it is quite unimportant; no distinction between up and down





5.

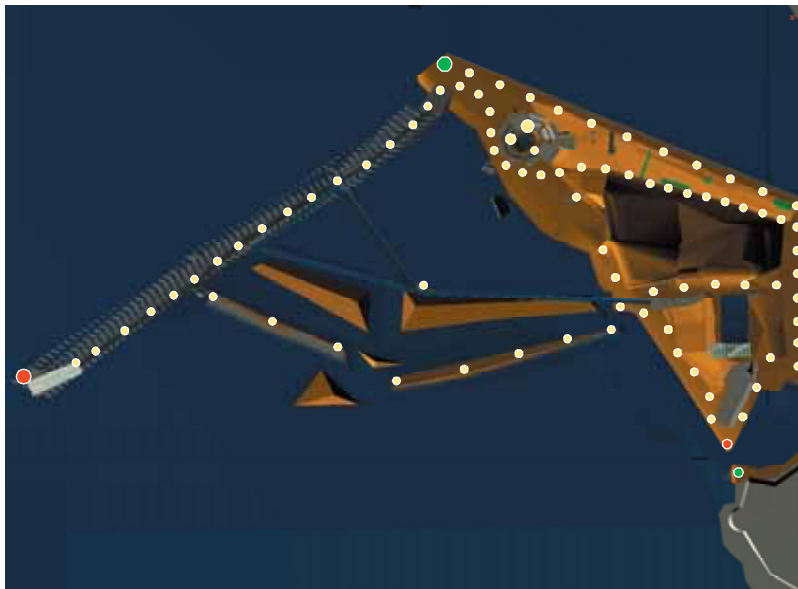
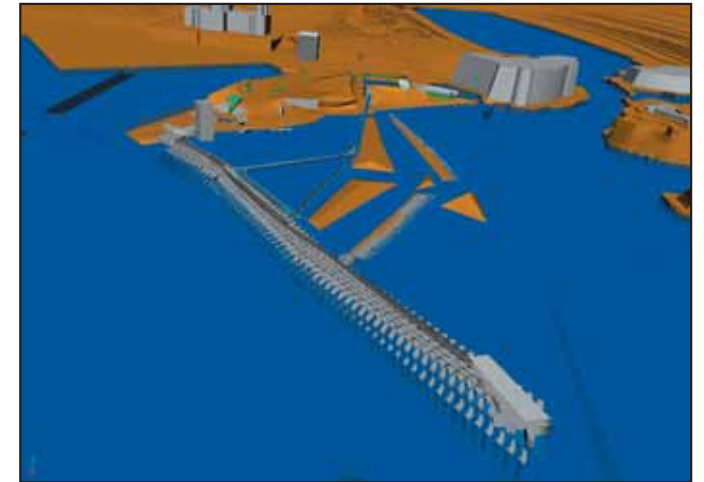
representation



the site in its surroundings

masterplan

the final masterplan contains information about the exact geometry of the beaches, further definition of the landscape topography, of the dam and of the filter elements.



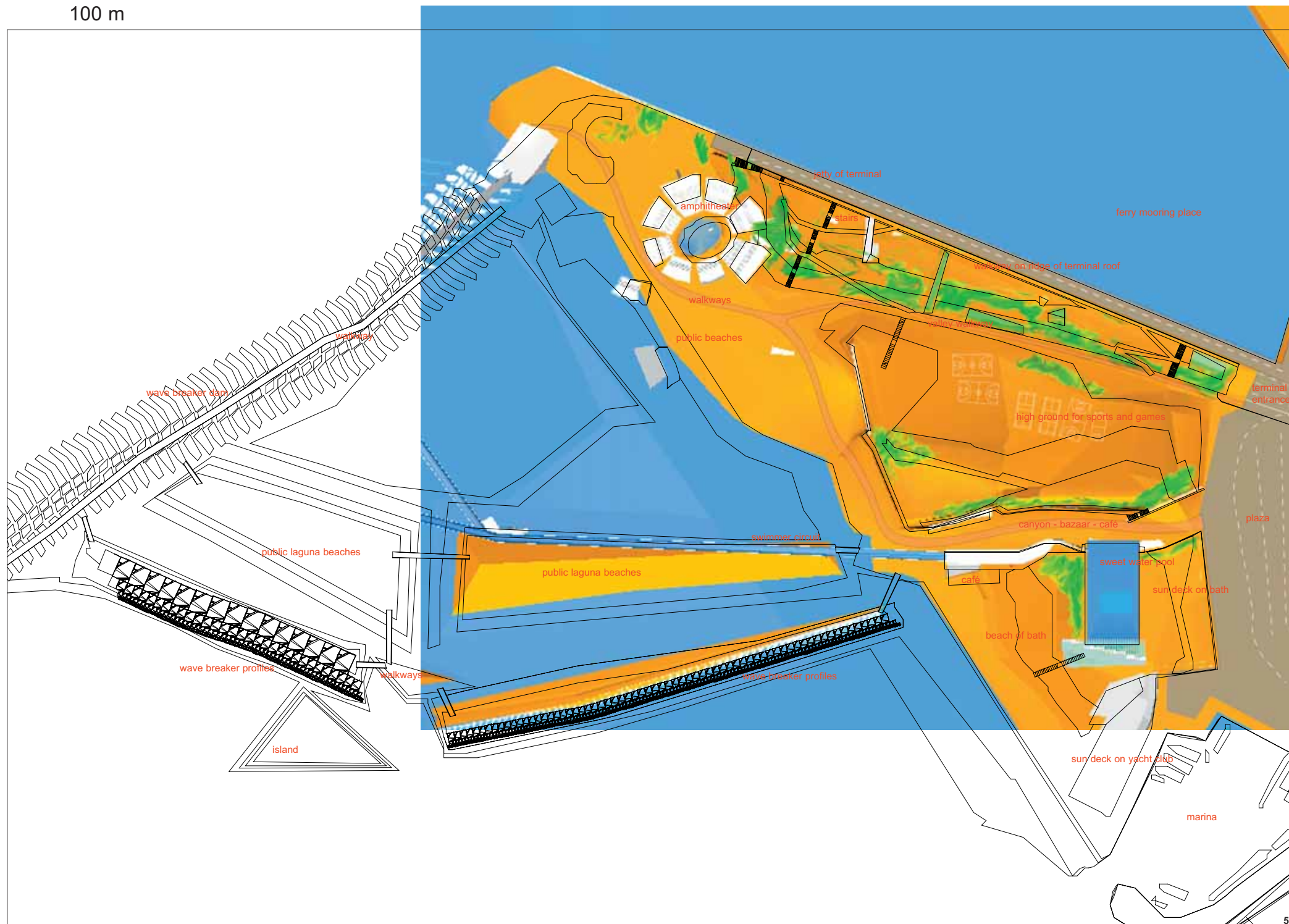
lighting along the walkways

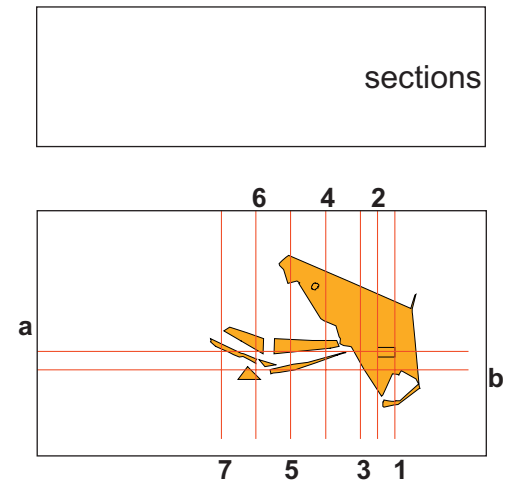
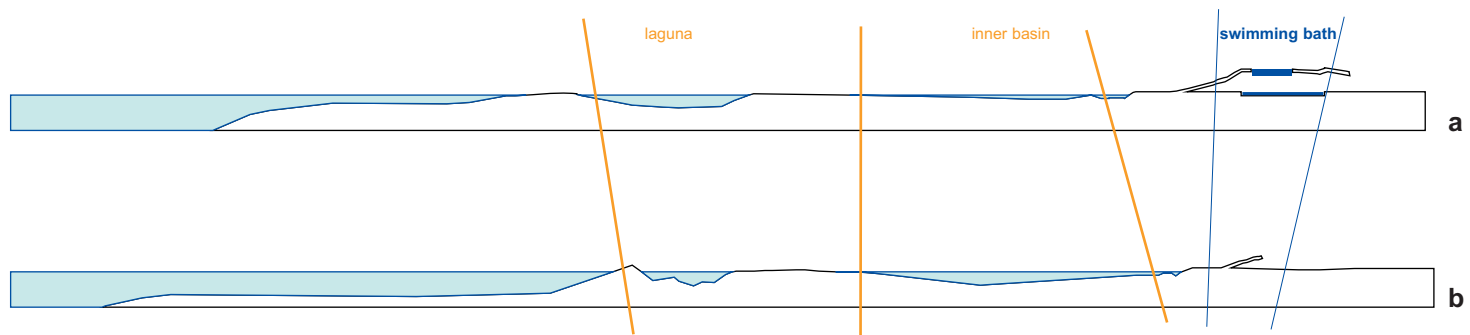
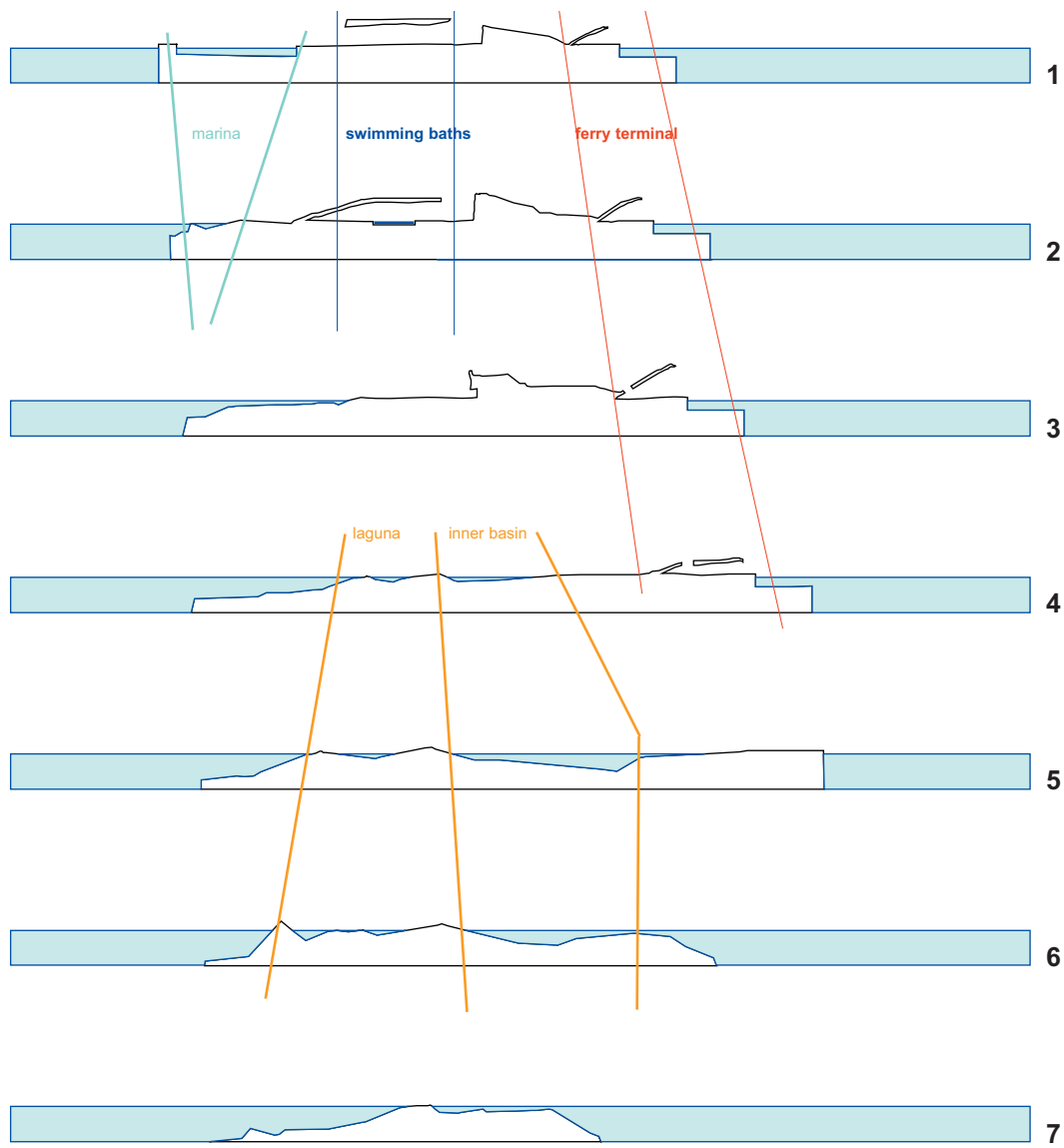


transition from urban to “peripheral”

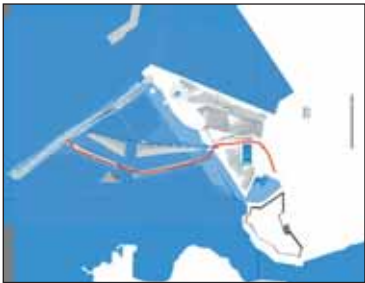
in the canyon the “bazaar” represents the farthest extension of urban functions from the plaza into the more informally programmed area of the lagoon, while more precisely determinable functions connected with conventional shopping as in supermarkets are situated next to the existing urban fabric. the proximity of the park & ride facilities and the tunnel access which connects immediately to distant parts of the city further enhances the functionality of the place for the potential users of the ferry terminal.

100 m



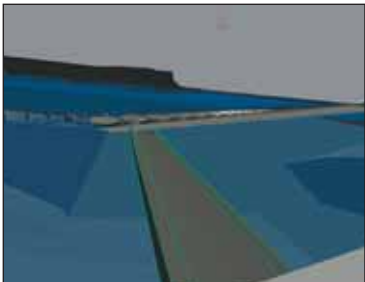
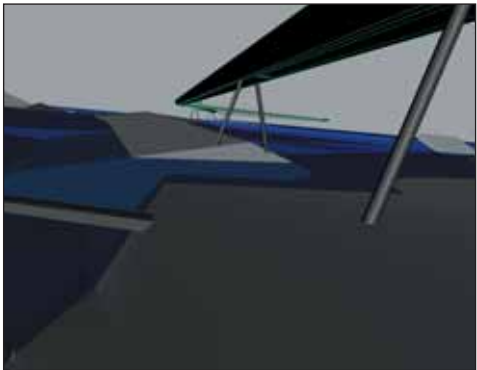
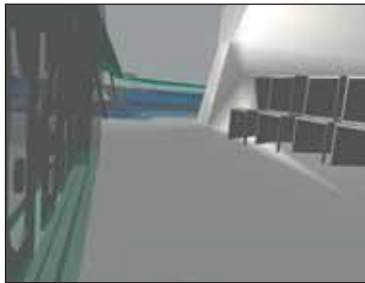
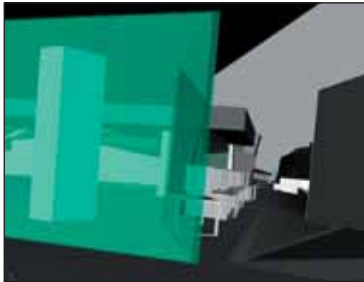
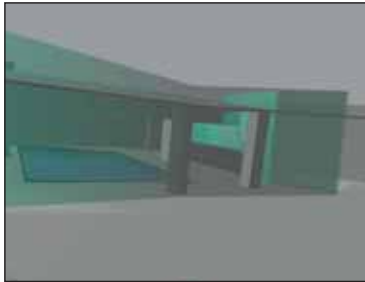
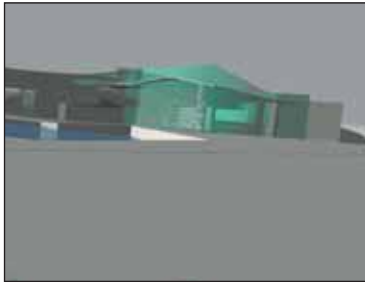


six promenades through the lagoon

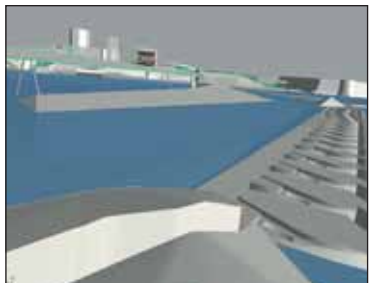
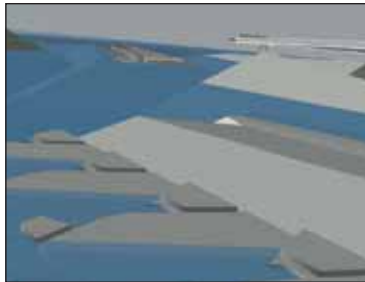
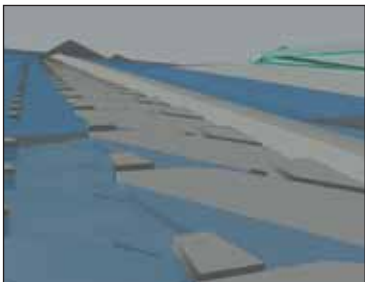
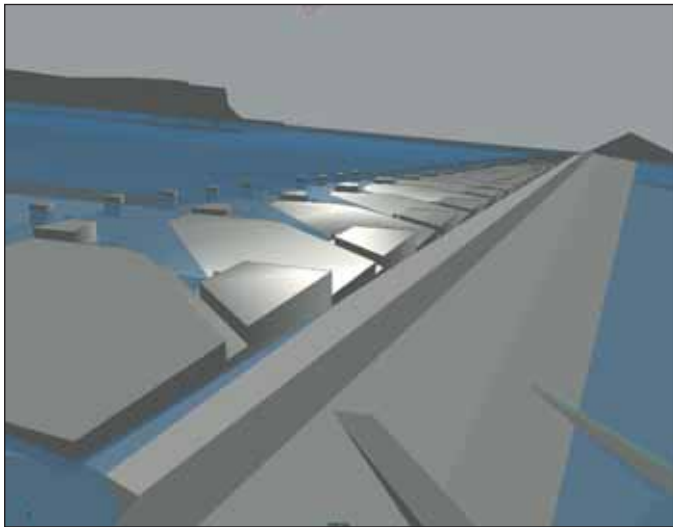


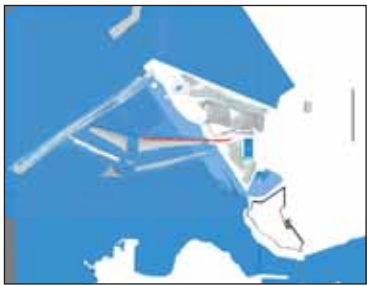
red line follows route

1



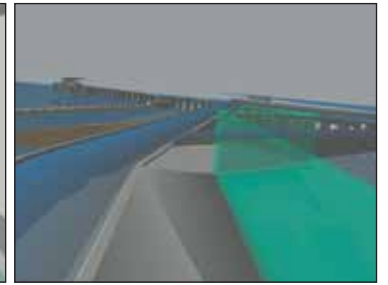
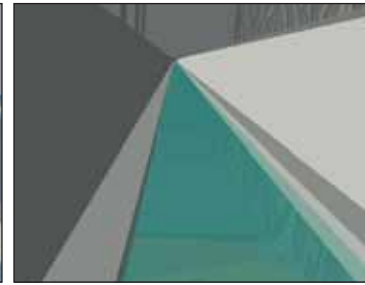
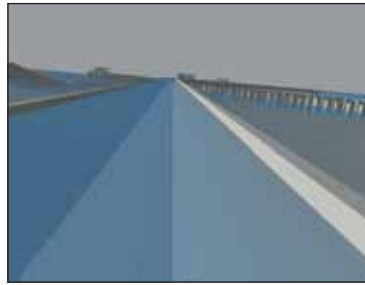
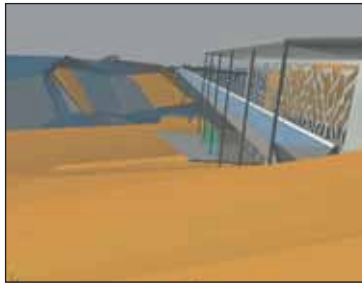
approach from the plaza towards the bath - entering the canyon along the bath - the café at the end of the canyon, with the big ornament, also starting point of the swimmer circuits - the bazaar in front of the café - the view over the lagoon, the swimmer circuits on pylons - walkway to the dunes - the dunes and the wave breaker profiles - turn and look back





2

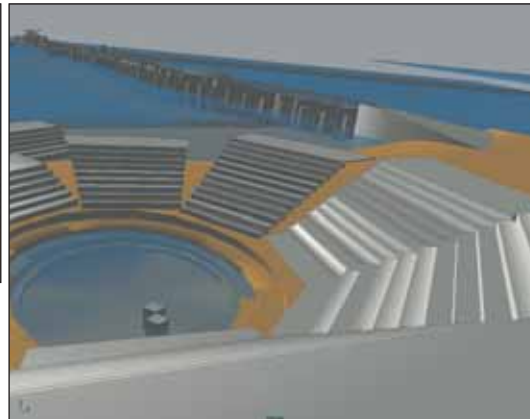
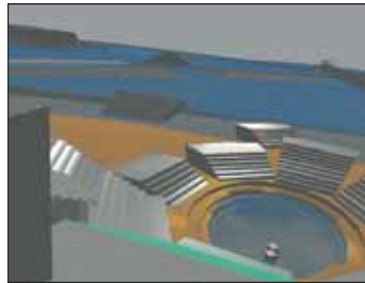
red line follows route



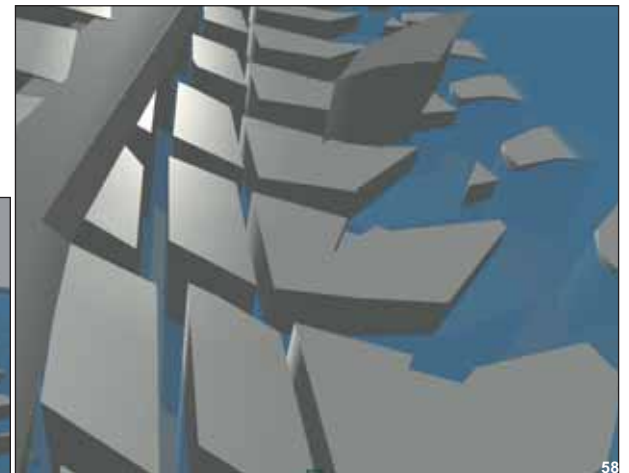
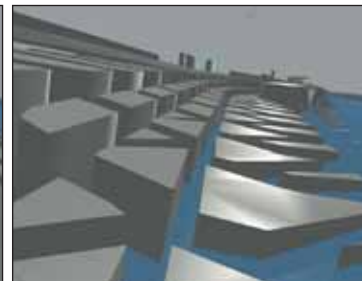
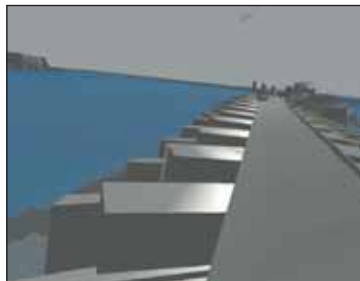
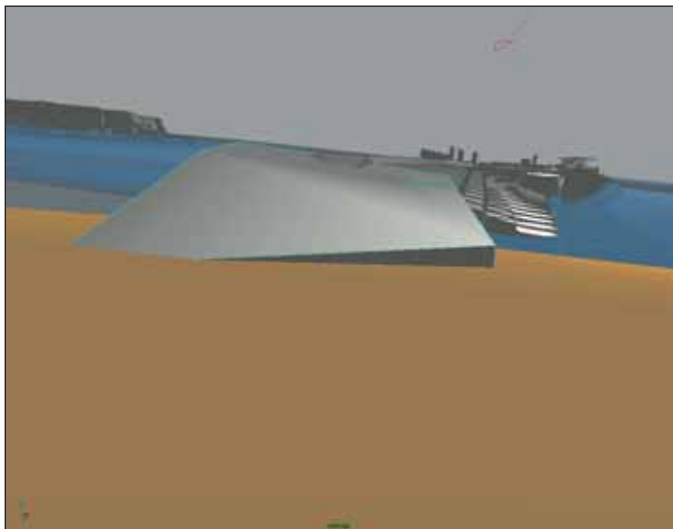
view from the slope on top of the bath over the lagoon, the starting point of the swimmer circuit - in the circuit- looking over the rim of the swimmer circuit channel

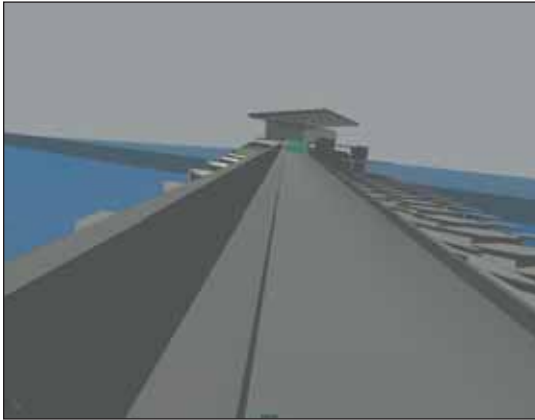
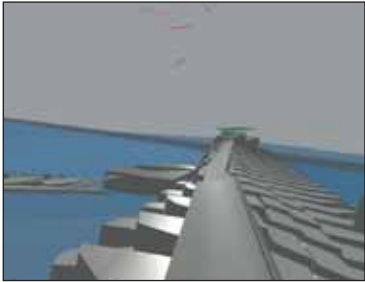
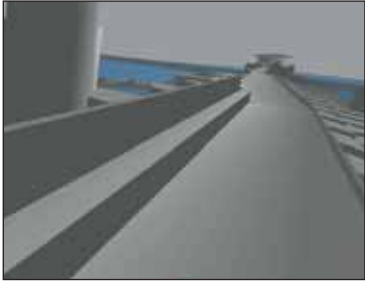


3

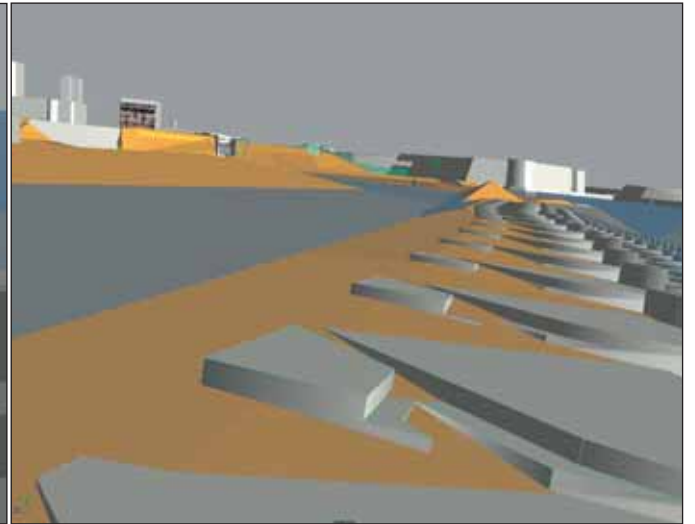
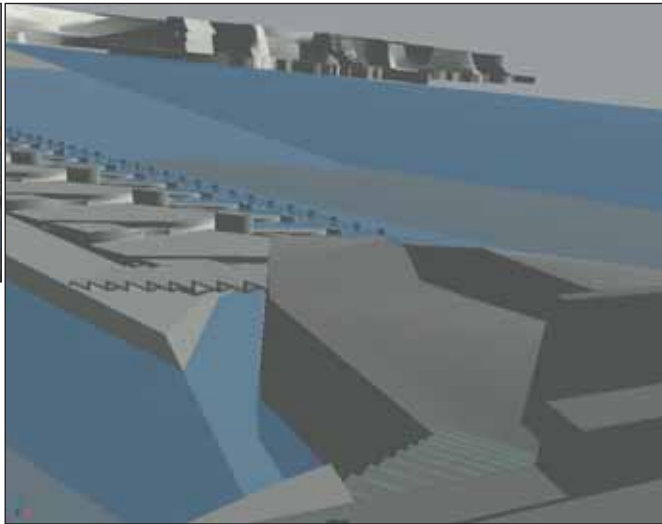
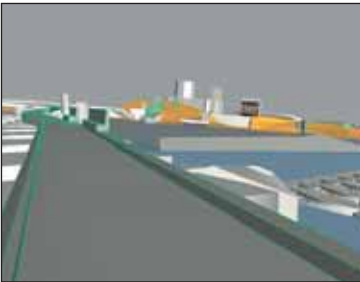
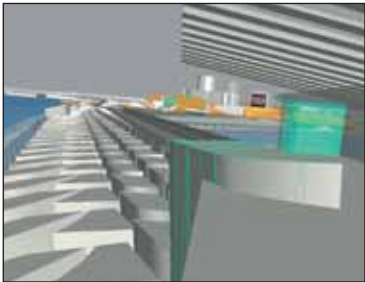
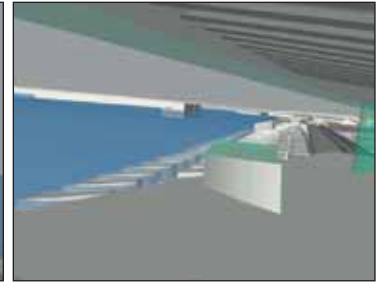
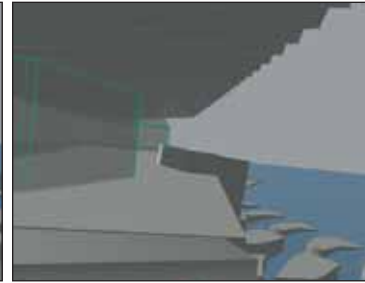
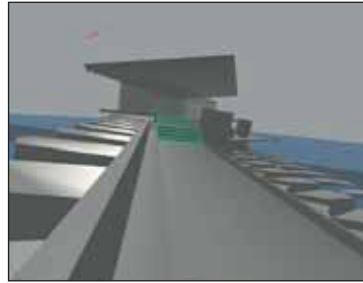


view over the amphitheatre and the lagoon from the end of the terminal - same view with the open sea - towards the dam - on the walkway of the dam - down at sea level where the waves break in





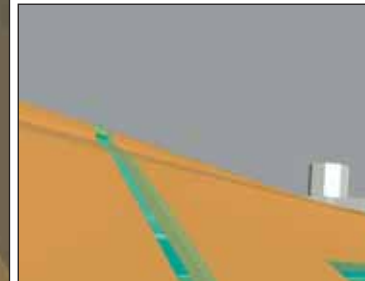
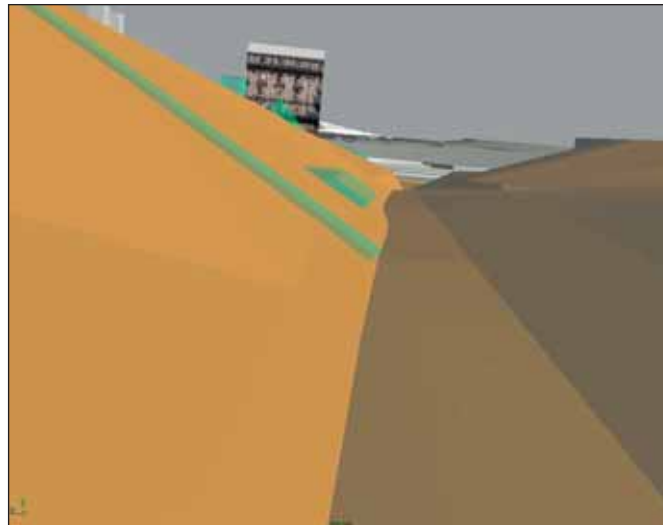
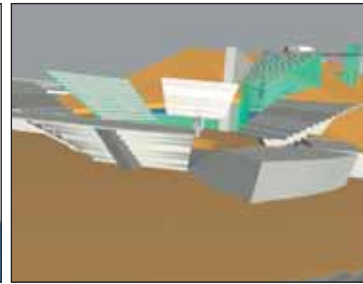
on the dam towards the wind shelter and café at the end - turning and looking back towards the city (the cathedral) - back to the point where the other dunes touch the dam (seeing the rocks of *pharo*) - on the dunes where the wave breaking profiles are (view on the fort st.jean)



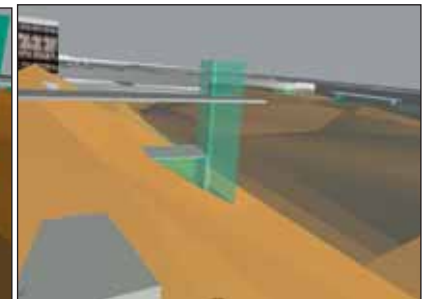
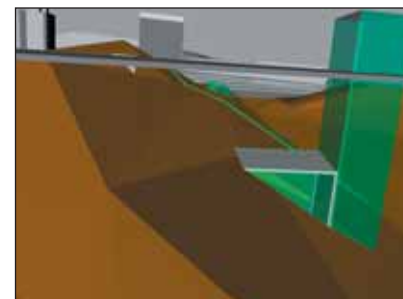
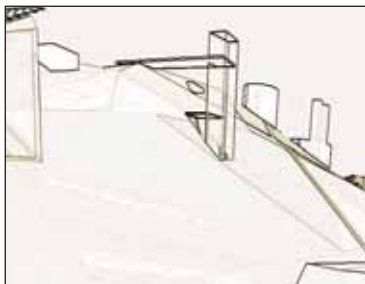
4



red line follows route



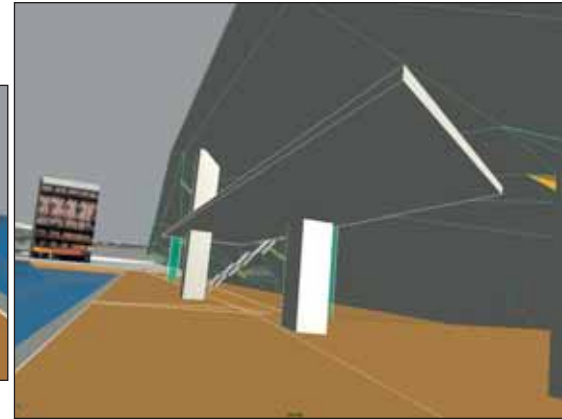
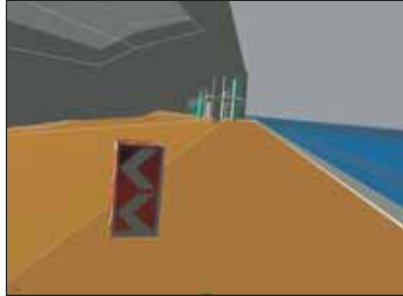
view on the amphitheatre - turn right and look on the ferry terminal - enter the valley between terminal and the high play ground - turn left and look on the surface of the terminal, view on the cupola of the cathedral behind - climb up the slope and look along the terminal - look over the terminal and the valley over the high play ground



5

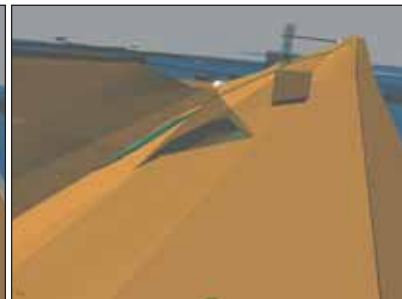
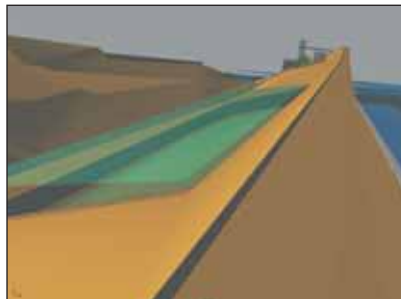
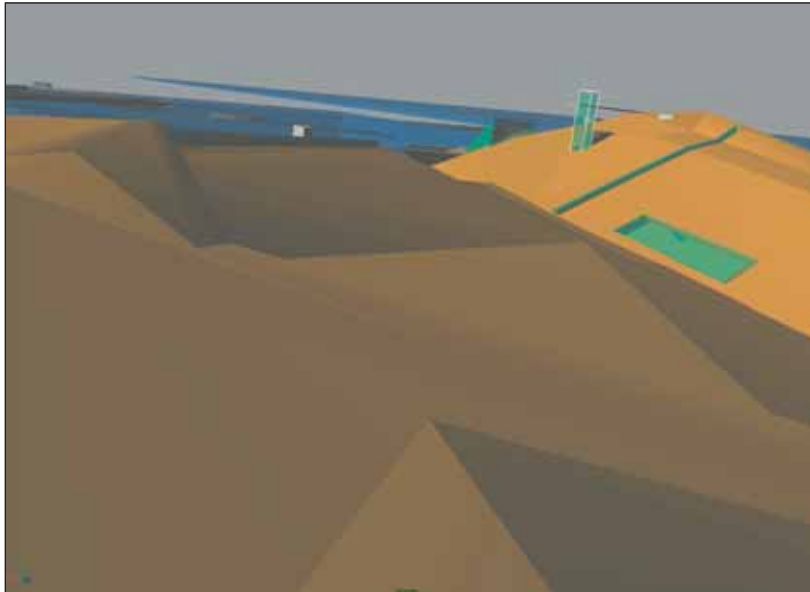


approach from the plaza - the car entrance of the ferry terminal - view through the terminal along the quai - view back from the other end of the terminal, along the quai towards the city



standing on the high play ground, looking towards the terminal slope beyond the valley - walking on the ridge of the terminal "roof" landscape, views towards its western (outer) end

6





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