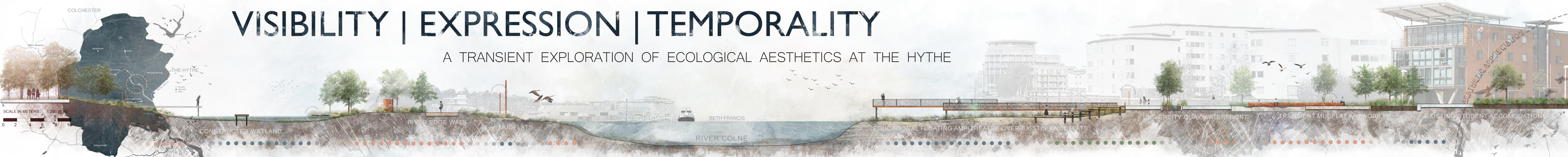
VISIBILITY | EXPRESSION | TEMPORALITY

A TRANSIENT EXPLORATION OF ECOLOGICAL AESTHETICS AT THE HYTHE

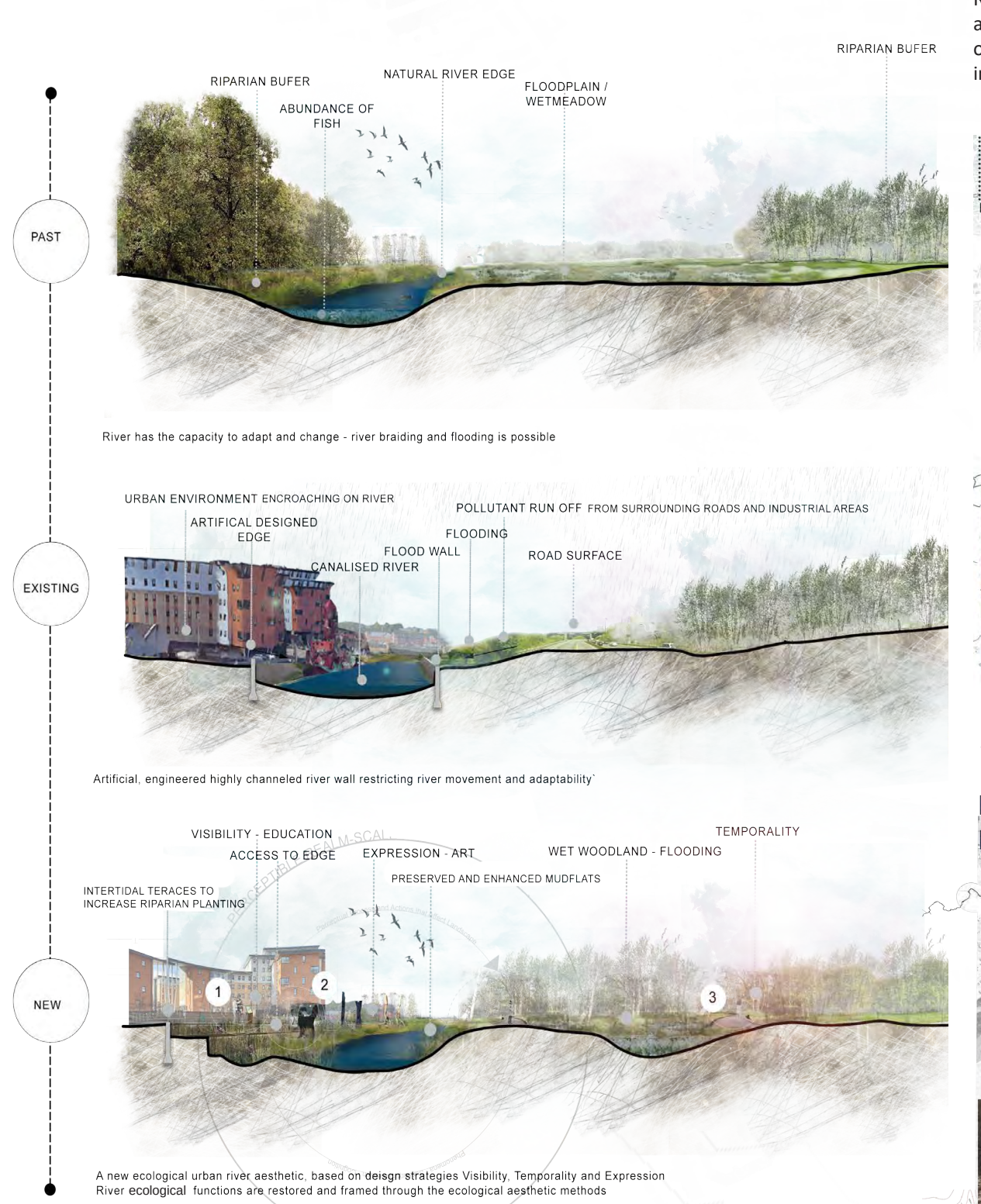

COLCHESTER
THE HYTHE
SCALE IN METERS 1:250 @ A0
0 2 4 6 8 10 20
CONSTRUCTED WETLAND
RIVER EDGE WALK
MUDFLATS
BETH FRANCIS
RIVER COLNE
EDUCATIONAL FLOATING AMPITHEATRE OVER EXISTING MUDFLATS
UNIVERSITY QUAY WATERFRONT
TRANSIENT MUDFLAT ARTWORK
EXISTING STUDENT ACCOMODATION
AESTHETIC APPRECIATION

PROBLEM STATEMENT

UK rivers are currently failing environmentally, existing in a state of degradation and deterritorialization; only a 1/3rd of the world rivers are free flowing (Carrington 2021), whilst 84% of the UK rivers have poor ecological standards (Laville 2020). Urban rivers are facing challenges from channelisation, increasing pollutant run off, and lack of care. The river Colne running through the urban centre of Colchester is undermined and forgotten, suffering poor ecological status, and failing chemical levels, particularly at the Hythe. In the context of climate change and urban population growth, it is imperative to intervene in the design of urban river's ecological functions, to restore their status and condition.

This design proposes to use ecological aesthetic design methods to address the imbalanced relationship between ecology, aesthetics, and landscape preferences, by testing and applying the different aesthetic design strategies of Visibility, Expression and Temporality, in relation to increasing the ecological functions of the River Colne. Using a system of intertidal terraces, constructed wetlands, and river platforms, this design exploration aims to transform the Hythe into a vibrant maritime water-front, producing a culturally sustainable landscape which is responsive to the transient tidal nature of the Colne; a new ecological urban river aesthetic is proposed. This is key to the new awareness and perception of the river Colne within its urban and suburban context.

A NEW URBAN ECOLOGICAL RIVER AESTHETIC:


RIPARIAN BUFER
NATURAL RIVER EDGE
ABUNDANCE OF FISH
FLOODPLAIN / WETMEADOW
RIPARIAN BUFER
PAST
URBAN ENVIRONMENT ENCROACHING ON RIVER
ARTIFICAL DESIGNED EDGE
POLLUTANT RUN OFF FROM SURROUNDING ROADS AND INDUSTRIAL AREAS
FLOODING
FLOOD WALL
CANALISED RIVER
ROAD SURFACE
EXISTING
VISIBILITY - EDUCATION
ACCESS TO EDGE
EXPRESSION - ART
WET WOODLAND - FLOODING
TEMPORALITY
INTERTIDAL TERACES TO INCREASE RIPARIAN PLANTING
PRESERVED AND ENHANCED MUDFLATS
NEW
1
2
3

River has the capacity to adapt and change - river braiding and flooding is possible

Artificial, engineered highly channeled river wall restricting river movement and adaptability

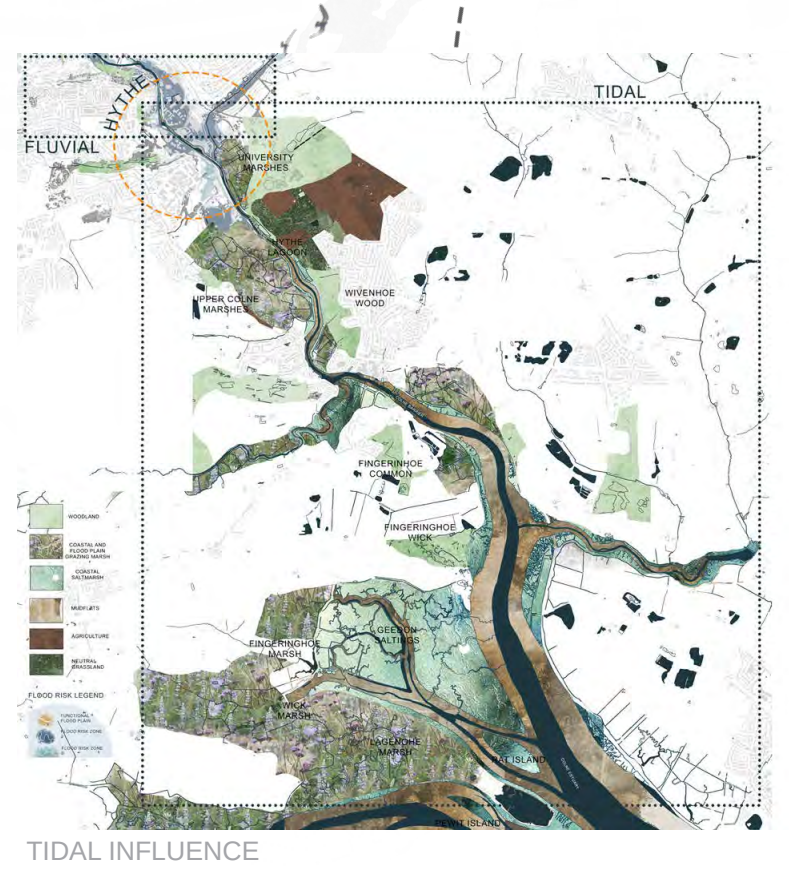
A new ecological urban river aesthetic, based on deisgn strategies Visibility, Temporality and Expression
River ecological functions are restored and framed through the ecological aesthetic methods

CULTURALLY SUSTAINABLE LANDSCAPE

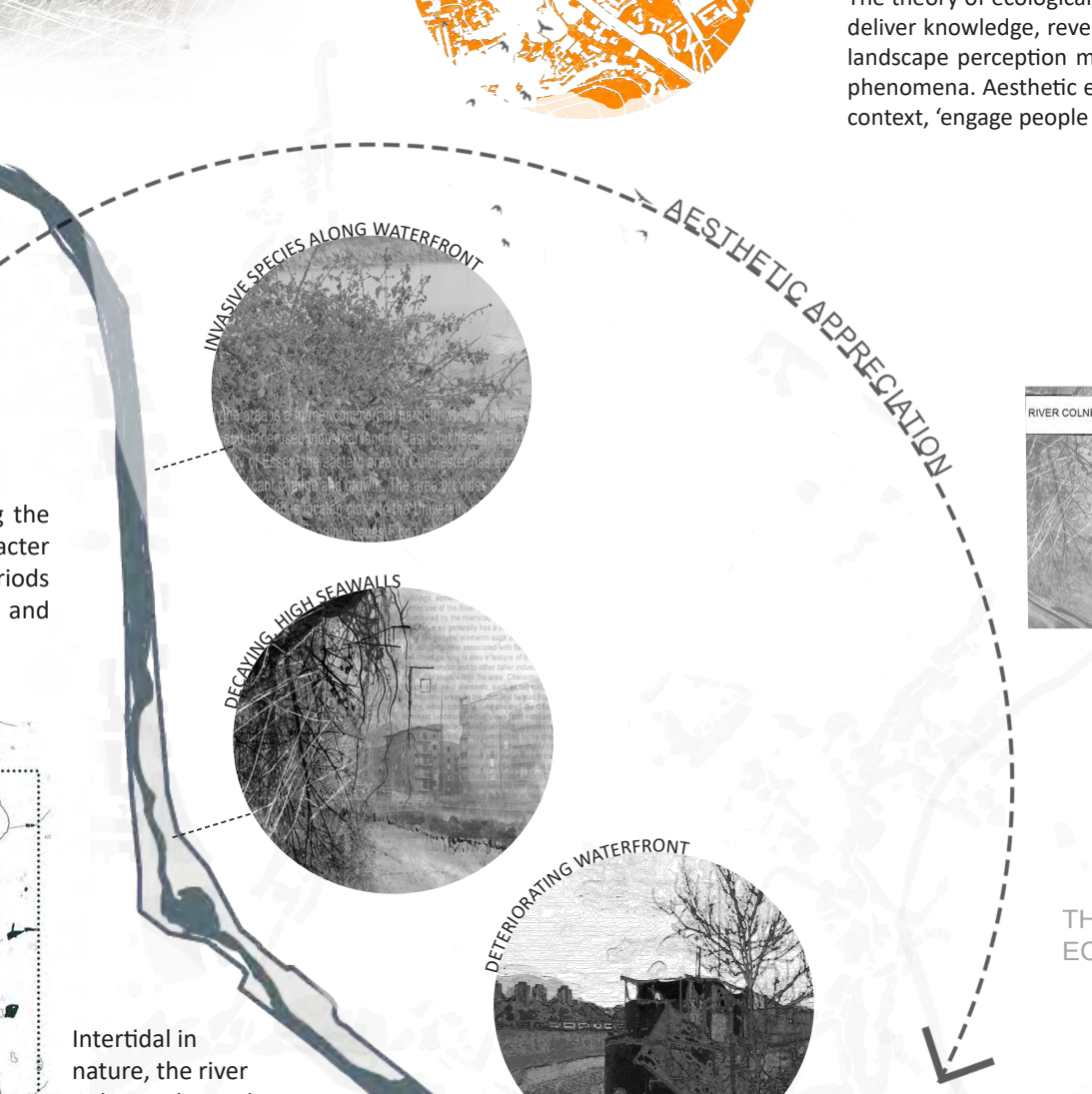
EXISTING SECTION

THE HYTHE

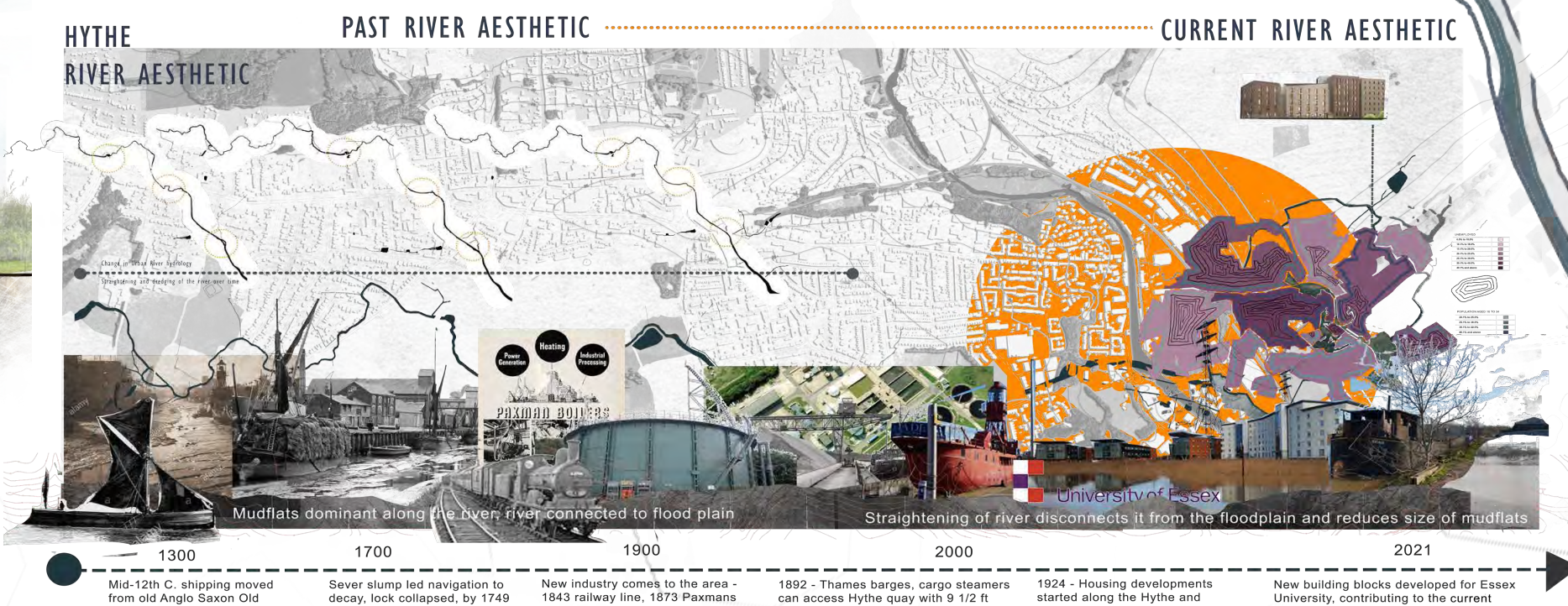
The Hythe is a historic industrial maritime wharf, located along the River Colne, Colchester. Despite the Hythe's rich historic character and proximity to Essex University, it has experienced several periods of slump, and is currently being eroded by heavy industrial use and increasing student accommodation.


HYTHE
FLUVIAL
TIDAL

TIDAL INFLUENCE


INVASIVE SPECIES ALONG WATERFRONT
DECAYING HIGH SEAWALLS
DETERIORATING WATERFRONT
AESTHETIC APPRECIATION

Intertidal in nature, the river Colne at the Hythe is dominated by an existing ecology of mudflats and dense stands of reed beds. High surface polluted water flow, and historic straightening and dredging of the river channel, is increasing tidal locking and flooding in the urban environment. It's declining and unfavourable status as a waterfront has created a negative perception towards it from the local public; hard industrial elements, ~~rusting seawalls,~~ and poor river ecology, impede on the public's 'sensory perception', producing a negative aesthetic response to the Hythe.


HYTHE RIVER AESTHETIC
PAST RIVER AESTHETIC
CURRENT RIVER AESTHETIC
Mudflats dominant along the river, river connected to flood plain
Straightening of river disconnects it from the floodplain and reduces size of mudflats
1300
1700
1900
2000
2021

Mid-12th C. shipping moved from old Anglo Saxon Old Hythe to New Hyth. River Colne straightened and deepend

Sever slump led navigation to decay, lock collapsed, by 1749 Colne derelict and recorded as being in a 'defective and neglected state' in 1846.

New industry comes to the area - 1843 railway line, 1873 Paxmans factory, 1838 Gasworks, 1884 Sewage works - gives the Hythe its dominant industrial character.

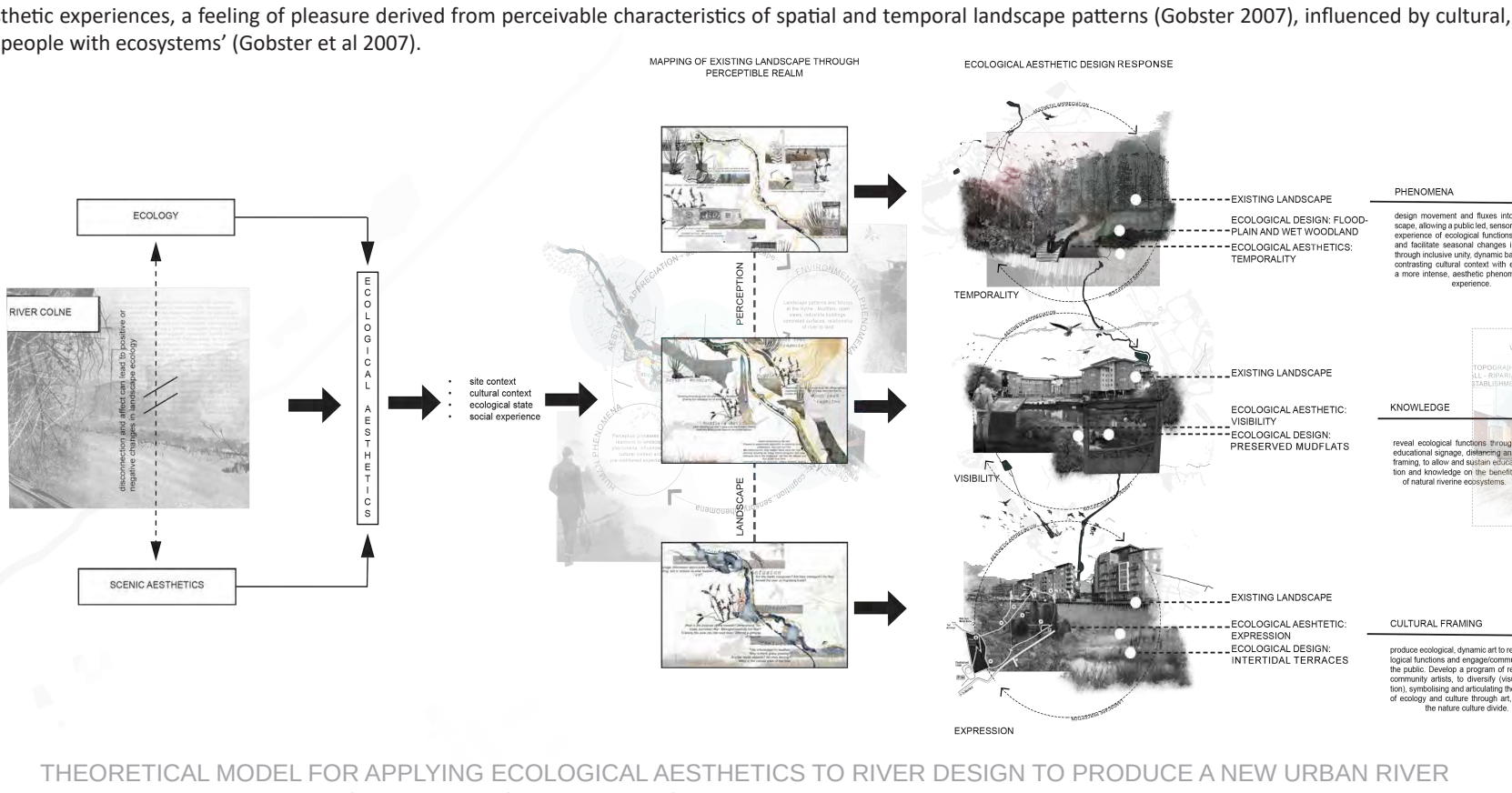
1892 - Thames barges, cargo steamers can access Hythe quay with 9 1/2 ft springtides. 1909 dredging of river. 1980s sees a decline in maritime usage.

1924 - Housing developments started along the Hythe and surrounding areas. 1995 Greenstead developed, leading to segregation between social classes

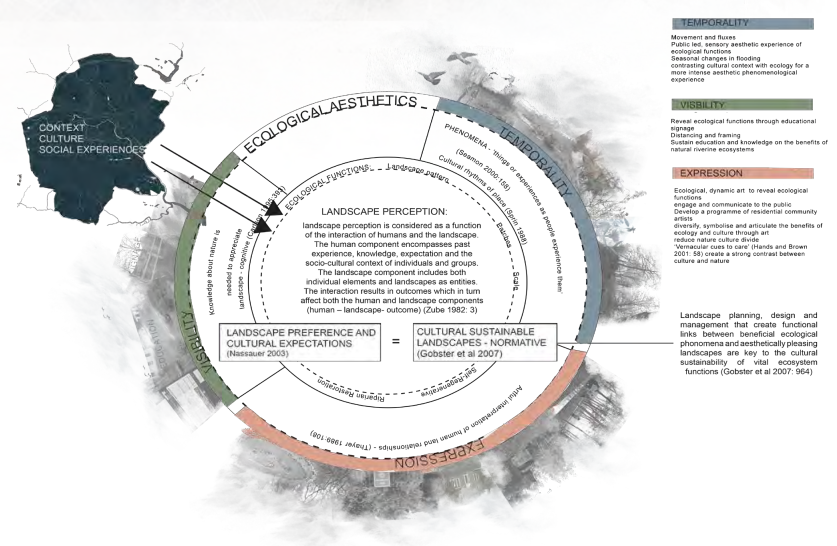
New building blocks developed for Essex University, contributing to the current landscape character of hard, industrial elements and accomodation blocks. A lack of communityexists, and current river aesthetic is in a declining, abandoned state.

ECOLOGICAL AESTHETICS

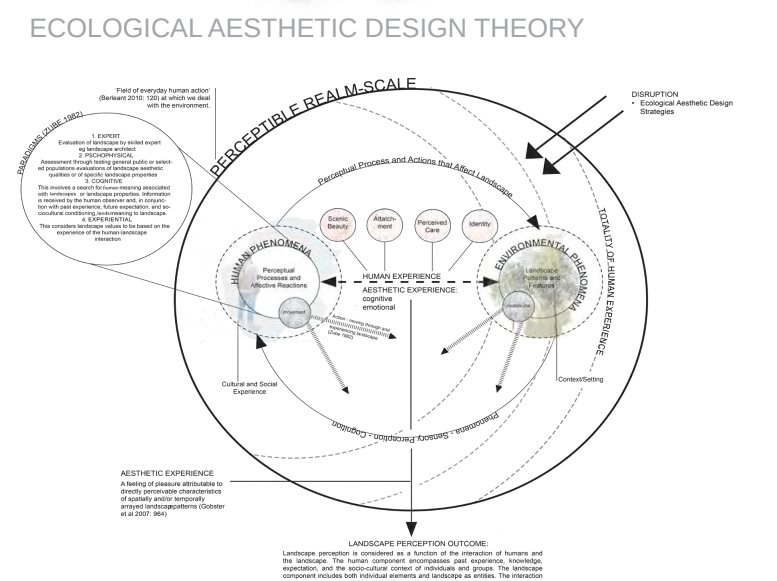
The theory of ecological aesthetics (Gobster et al 2007), aims to bridge the gap between landscape aesthetics and ecology, by intervening in the design of ecological functions. It is a design which aims to deliver knowledge, reveal ecological functions, and produce a positive aesthetic experience; a holistic design approach which merges natural and cultural values. Ecological aesthetics is based on Zube's landscape perception model; operating within the perceptible realm, 'the field of every day human action' (Berleant 2010: 120), a cyclical relationship is formed between human and environmental phenomena. Aesthetic experiences, a feeling of pleasure derived from perceivable characteristics of spatial and temporal landscape patterns (Gobster 2007), influenced by cultural, social experience and context, 'engage people with ecosystems' (Gobster et al 2007).


MAPPING OF EXISTING LANDSCAPE THROUGH PERCEPTIBLE REALM
ECOLOGICAL AESTHETIC DESIGN RESPONSE
ECOLOGY
RIVER COLNE
SCENIC AESTHETICS
ECOLOGICAL AESTHETICS
site context
cultural context
ecological state
social experience
PERCEPTION
LANDSCAPE
EXISTING LANDSCAPE
ECOLOGICAL DESIGN: FLOOD-PLAIN AND WET WOODLAND
ECOLOGICAL AESTHETICS: TEMPORALITY
TEMPORALITY
ECOLOGICAL AESTHETIC: VISIBILITY
ECOLOGICAL DESIGN: PRESERVED MUDFLATS
VISIBILITY
ECOLOGICAL AESTHETIC: EXPRESSION
ECOLOGICAL DESIGN: INTERTIDAL TERRACES
EXPRESSION
PHENOMENA
KNOWLEDGE
CULTURAL FRAMING
A NEW URBAN RIVER ECOLOGICAL AESTHETIC
LANDSCAPE PERCEPTION PROCESS
POSITIVE AESTHETIC EXPERIENCE
CULTURALLY SUSTAINABLE LANDSCAPE

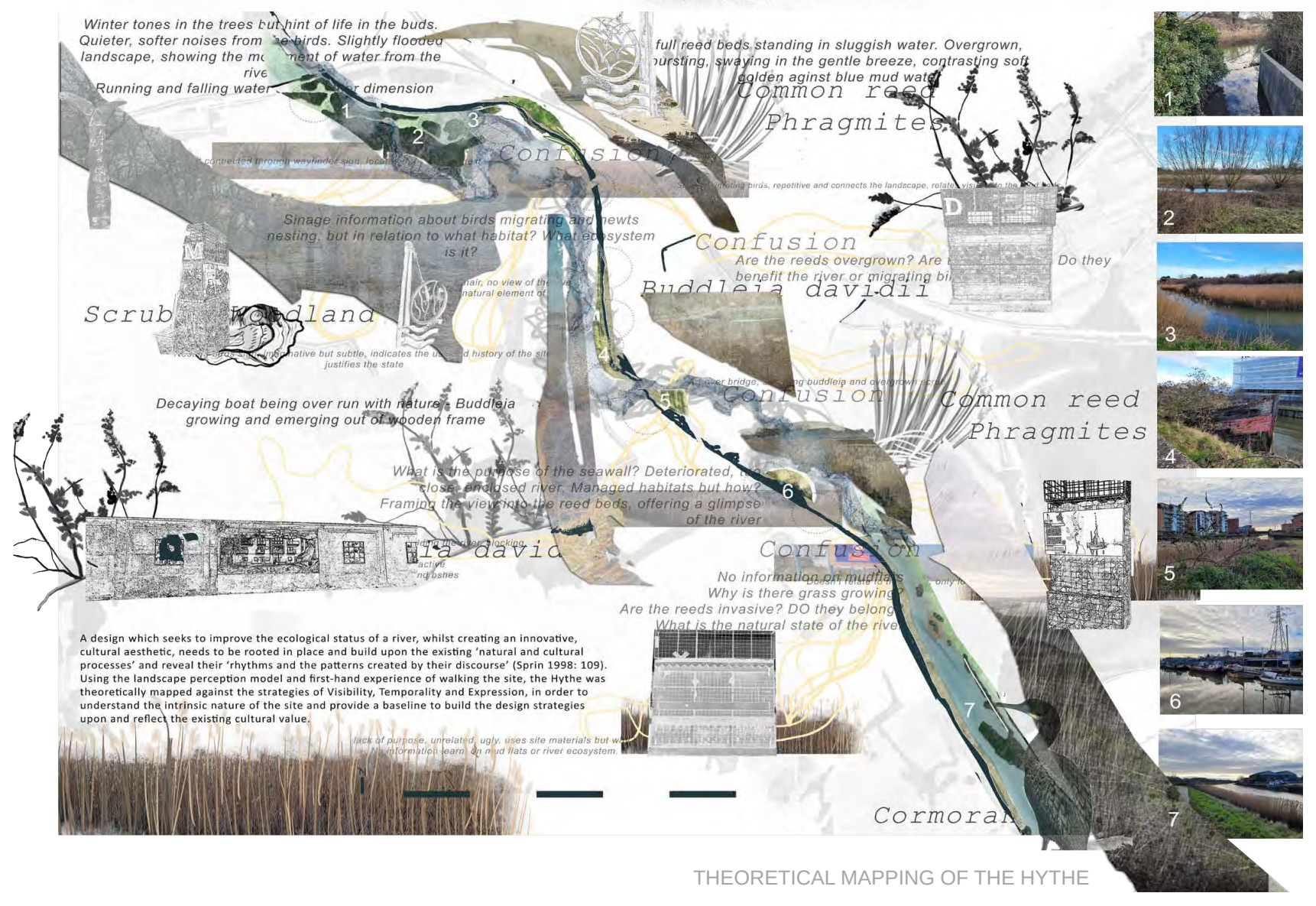
THEORETICAL MODEL FOR APPLYING ECOLOGICAL AESTHETICS TO RIVER DESIGN TO PRODUCE A NEW URBAN RIVER ECOLOGICAL AESTHETIC (SOURCE: Authors own, 2021)


CONTEXT
CULTURE
SOCIAL EXPERIENCE
ECOLOGICAL AESTHETICS
LANDSCAPE PERCEPTION
LANDSCAPE PREFERENCE AND CULTURAL EXPECTATIONS
CULTURALLY SUSTAINABLE LANDSCAPES - NORMATIVE
TEMPORALITY
VISIBILITY
EXPRESSION

ECOLOGICAL AESTHETIC DESIGN THEORY


PERCEPTIBLE REALM SCALE
DISRUPTION
HUMAN EXPERIENCE
ENVIRONMENTAL PHENOMENA
AESTHETIC EXPERIENCE
LANDSCAPE PERCEPTION OUTCOME

PERCEPTIBLE REALM THEORY MODEL


Winter tones in the trees but hint of life in the buds. Quieter, softer noises from the birds. Slightly flooded landscape, showing the movement of water from the river
Running and falling water
Tall reed beds standing in sluggish water. Overgrown, bursting, swaying in the gentle breeze, contrasting soft golden against blue mud water.
Common reed Phragmites
Confusion
Scrub Woodland
Buddleia davidii
Decaying boat being over run with nature. Buddleia growing and emerging out of wooden frame
Common reed Phragmites
Cormorant
1
2
3
4
5
6
7

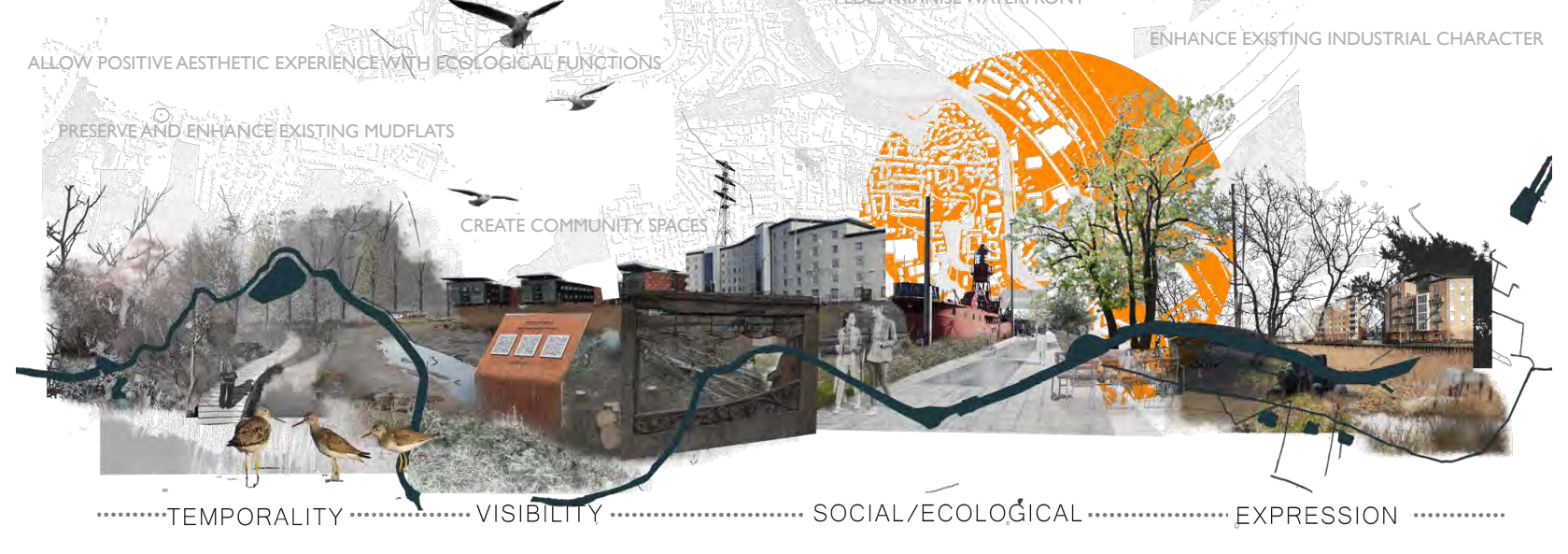
A design which seeks to improve the ecological status of a river, whilst creating an innovative, cultural aesthetic, needs to be rooted in place and build upon the existing 'natural and cultural processes' and reveal their 'rhythms and the patterns created by their discourse' (Sprin 1998: 109). Using the landscape perception model and first-hand experience of walking the site, the Hythe was theoretically mapped against the strategies of Visibility, Temporality and Expression, in order to understand the intrinsic nature of the site and provide a baseline to build the design strategies upon and reflect the existing cultural value.

THEORETICAL MAPPING OF THE HYTHE

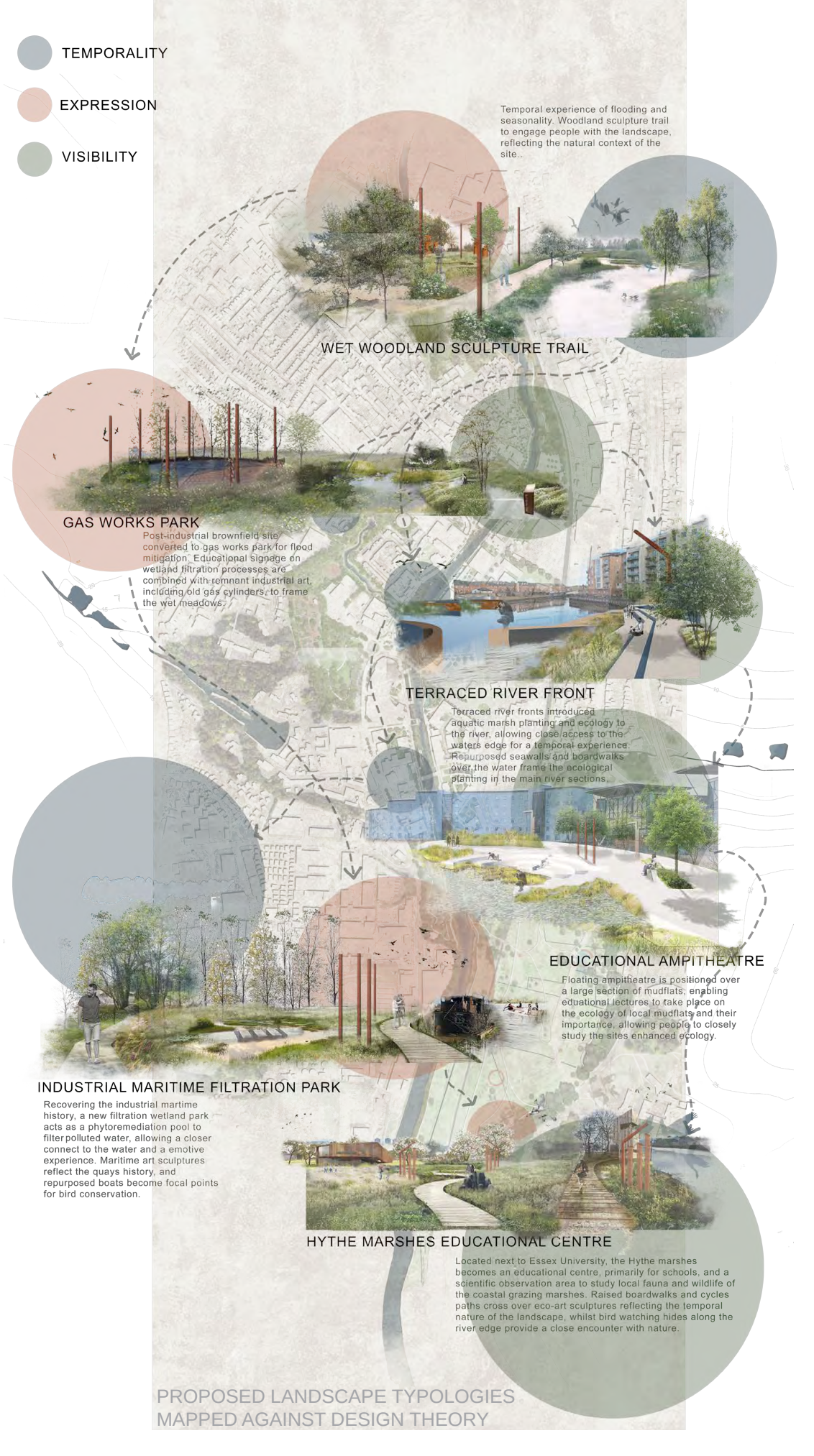
> THE DESIGN NEEDS TO EMBODY AN AESTHETIC THAT RECOGNISES BOTH NATURAL AND CULTURAL PROCESSES AND REVEALS THE RHYTHMS AND PATTERNS OF THEIR DISCOURSE
> NASSAUER 1997: 69

DESIGN AIMS

The design aims to increase the biological integrity (Gobster et al 2007) of the River Colne, raising the awareness and perception of the Hythe, whilst rejecting a purely ecological or aesthetic led design approach. Responding to first-hand, perceptible mapping, the design builds upon existing phenomenological, temporal, and spatial aesthetics, to enhance the existing ecology by reconnecting mudflats to marshes; the design celebrates the transient tidal nature within the urban setting through the three ecological aesthetic methods. The strategies therefore intervene, disrupt, or enhance the perceptible realm experience, revealing ecological qualities of the Hythe through a cognitive, dynamic, and experience-based process. Increasing spaces for pedestrians and cyclists along the waterfront by removing roads for cars, forges a new community usage and thus produces a 'dynamic, cultural landscape' (Bell 2012: 65) that will influence the public's aesthetic preferences for an ecological revitalisation of the Hythe.


PEDESTRIANISE WATERFRONT
ALLOW POSITIVE AESTHETIC EXPERIENCE WITH ECOLOGICAL FUNCTIONS
ENHANCE EXISTING INDUSTRIAL CHARACTER
PRESERVE AND ENHANCE EXISTING MUDFLATS
CREATE COMMUNITY SPACES
TEMPORALITY
VISIBILITY
SOCIAL/ECOLOGICAL
EXPRESSION

Related to the strategic masterplan, the methods of Visibility, Temporality and Expression are mapped against the landscape typologies proposed along the Hythe. More natural areas where the river is connected to the flood plain are focused on increasing temporal experiences and allowing close contact with nature, whilst areas constricted by the accommodation and industrial buildings are focused on connecting people with the river edge and designing educational areas to direct attention to the mudflats and local ecology.


TEMPORALITY
EXPRESSION
VISIBILITY
WET WOODLAND SCULPTURE TRAIL
GAS WORKS PARK
TERRACED RIVER FRONT
EDUCATIONAL AMPITHEATRE
INDUSTRIAL MARITIME FILTRATION PARK
HYTHE MARSHES EDUCATIONAL CENTRE

Temporal experience of flooding and seasonality. Woodland sculpture trail to engage people with the landscape, reflecting the natural context of the site.

GAS WORKS PARK Post-industrial brownfield site converted to gas works park for flood mitigation. Educational signage on wetland filtration processes are combined with remnant industrial art, including old gas cylinders, to frame the wet meadows.

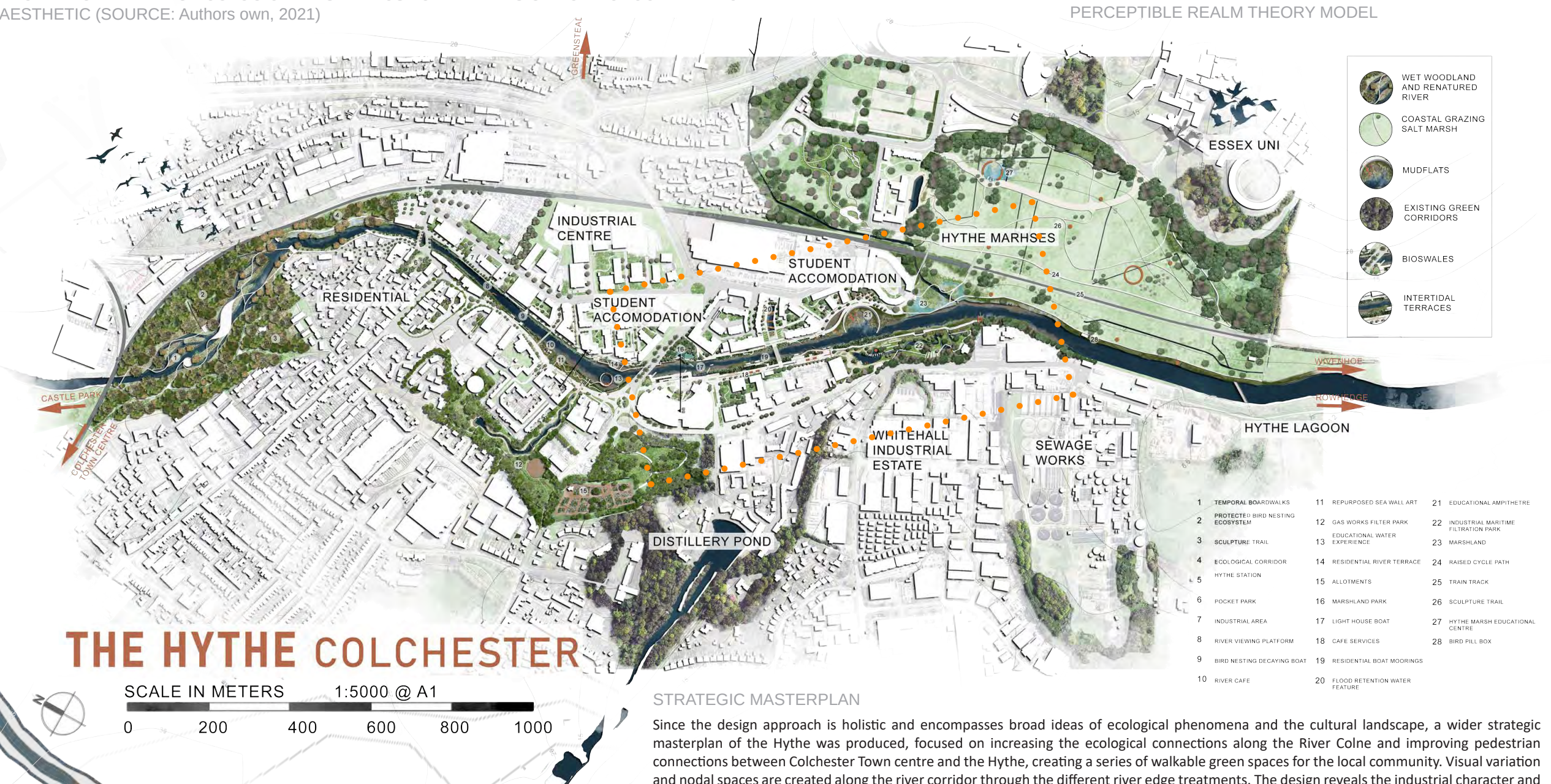
TERRACED RIVER FRONT Terraced river fronts introduced aquatic marsh planting and ecology to the river, allowing close access to the waters edge for a temporal experience. Repurposed seawalls and boardwalks over the water frame the ecological planting in the main river sections.

EDUCATIONAL AMPITHEATRE Floating ampitheatre is positioned over a large section of mudflats, enabling edutational lectures to take place on the ecology of local mudflats and their importance, allowing people to closely study the sites enhanced ecology.

INDUSTRIAL MARITIME FILTRATION PARK Recovering the industrial martime history, a new filtration wetland park acts as a phytoremediation pool to filter polluted water, allowing a closer connect to the water and a emotive experience. Maritime art sculptures reflect the quays history, and repurposed boats become focal points for bird conservation.

HYTHE MARSHES EDUCATIONAL CENTRE Located next to Essex University, the Hythe marshes becomes an educational centre, primarily for schools, and a scientific observation area to study local fauna and wildlife of the coastal grazing marshes. Raised boardwalks and cycles paths cross over eco-art sculptures reflecting the temporal nature of the landscape, whilst bird watching hides along the river edge provide a close encounter with nature.

PROPOSED LANDSCAPE TYPOLOGIES MAPPED AGAINST DESIGN THEORY


ESSEX UNI
INDUSTRIAL CENTRE
RESIDENTIAL
STUDENT ACCOMODATION
HYTHE MARHSES
CASTLE PARK
COLCHESTER TOWN CENTRE
WIVENHOE
ROWHEDGE
WHITEHALL INDUSTRIAL ESTATE
SEWAGE WORKS
HYTHE LAGOON
DISTILLERY POND
WET WOODLAND AND RENATURED RIVER
COASTAL GRAZING SALT MARSH
MUDFLATS
EXISTING GREEN CORRIDORS
BIOSWALES
INTERTIDAL TERRACES
THE HYTHE COLCHESTER
SCALE IN METERS 1:5000 @ A1
0 200 400 600 800 1000

1	TEMPORAL BOARDWALKS	11	REPURPOSED SEA WALL ART	21	EDUCATIONAL AMPITHETRE
2	PROTECTED BIRD NESTING ECOSYSTEM	12	GAS WORKS FILTER PARK	22	INDUSTRIAL MARITIME FILTRATION PARK
3	SCULPTURE TRAIL	13	EDUCATIONAL WATER EXPERIENCE	23	MARSHLAND
4	ECOLOGICAL CORRIDOR	14	RESIDENTIAL RIVER TERRACE	24	RAISED CYCLE PATH
5	HYTHE STATION	15	ALLOTMENTS	25	TRAIN TRACK
6	POCKET PARK	16	MARSHLAND PARK	26	SCULPTURE TRAIL
7	INDUSTRIAL AREA	17	LIGHT HOUSE BOAT	27	HYTHE MARSH EDUCATIONAL CENTRE
8	RIVER VIEWING PLATFORM	18	CAFE SERVICES	28	BIRD PILL BOX
9	BIRD NESTING DECAYING BOAT	19	RESIDENTIAL BOAT MOORINGS		
10	RIVER CAFE	20	FLOOD RETENTION WATER FEATURE		

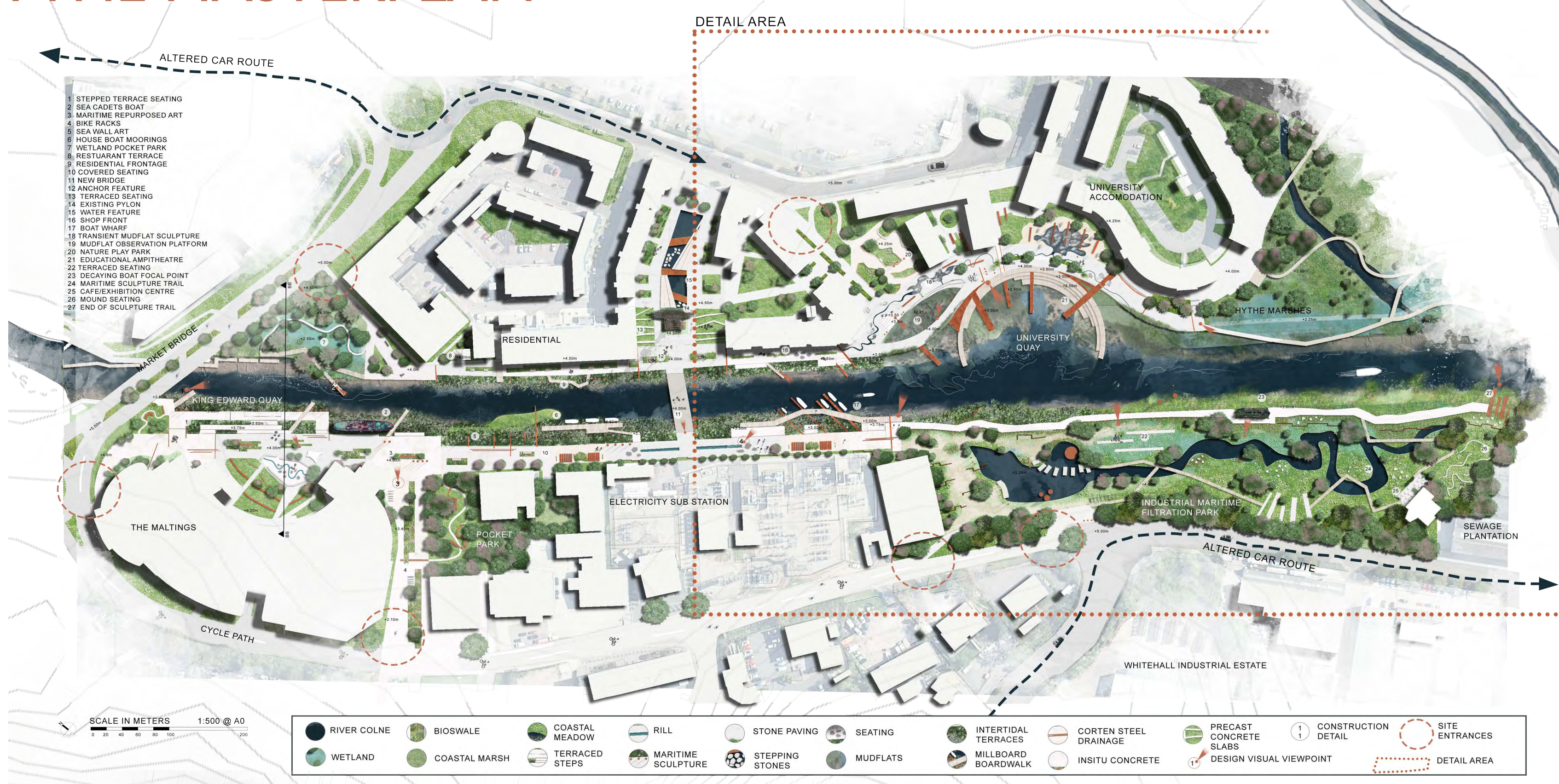
STRATEGIC MASTERPLAN

Since the design approach is holistic and encompasses broad ideas of ecological phenomena and the cultural landscape, a wider strategic masterplan of the Hythe was produced, focused on increasing the ecological connections along the River Colne and improving pedestrian connections between Colchester Town centre and the Hythe, creating a series of walkable green spaces for the local community. Visual variation and nodal spaces are created along the river corridor through the different river edge treatments. The design reveals the industrial character and cultural memory of the Hythe.

HYTHE MASTERPLAN

AUTUMN
WINTER
SPRING
SUMMER

SEASONAL WETLAND AXOS


DETAIL AREA
ALTERED CAR ROUTE
MARKET BRIDGE
KING EDWARD QUAY
RESIDENTIAL
UNIVERSITY ACCOMODATION
UNIVERSITY QUAY
HYTHE MARSHES
THE MALTINGS
POCKET PARK
ELECTRICITY SUB STATION
INDUSTRIAL MARITIME FILTRATION PARK
SEWAGE PLANTATION
ALTERED CAR ROUTE
CYCLE PATH
WHITEHALL INDUSTRIAL ESTATE
SCALE IN METERS 1:500 @ A0

1 STEPPED TERRACE SEATING
2 SEA CADETS BOAT
3 MARITIME REPURPOSED ART
4 BIKE RACKS
5 SEA WALL ART
6 HOUSE BOAT MOORINGS
7 WETLAND POCKET PARK
8 RESTUARANT TERRACE
9 RESIDENTIAL FRONTAGE
10 COVERED SEATING
11 NEW BRIDGE
12 ANCHOR FEATURE
13 TERRACED SEATING
14 EXISTING PYLON
15 WATER FEATURE
16 SHOP FRONT
17 BOAT WHARF
18 TRANSIENT MUDFLAT SCULPTURE
19 MUDFLAT OBSERVATION PLATFORM
20 NATURE PLAY PARK
21 EDUCATIONAL AMPITHEATRE
22 TERRACED SEATING
23 DECAYING BOAT FOCAL POINT
24 MARITIME SCULPTURE TRAIL
25 CAFE/EXHIBITION CENTRE
26 MOUND SEATING
27 END OF SCULPTURE TRAIL

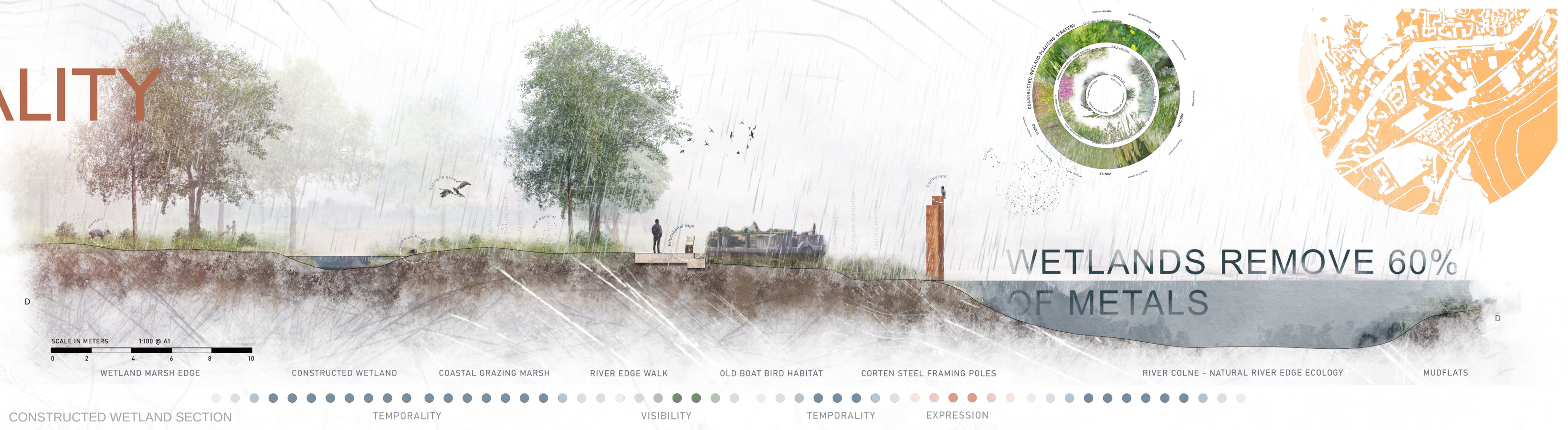
●	RIVER COLNE	●	BIOSWALE	●	COASTAL MEADOW	●	RILL	●	STONE PAVING	●	SEATING	●	INTERTIDAL TERRACES	●	CORTEN STEEL DRAINAGE
●	WETLAND	●	COASTAL MARSH	●	TERRACED STEPS	●	MARITIME SCULPTURE	●	STEPPING STONES	●	MUDFLATS	●	MILLBOARD BOARDWALK	●	INSITU CONCRETE

●	PRECAST CONCRETE SLABS	1	CONSTRUCTION DETAIL	○	SITE ENTRANCES
●	DESIGN VISUAL VIEWPOINT			⋯	DETAIL AREA

TEMPORALITY

Designing movement and fluxes into the landscape allows a sensory led aesthetic experience, achieved through stepped terraces and river platforms extending vertically across the water, enhancing existing views and increasing biophilic connections to the Hythe.

The removal of hard standing paving and concrete sea walls enables the creation of wetlands, increasing the ecological connections along the river, whilst slowing the water flow and reducing flooding from tidal locking. Seasonal changes and dynamic, ephemeral fluxes in flooding and weather, experienced by raised boardwalks, produce a new aesthetic that celebrates motion and change in the landscape over time.

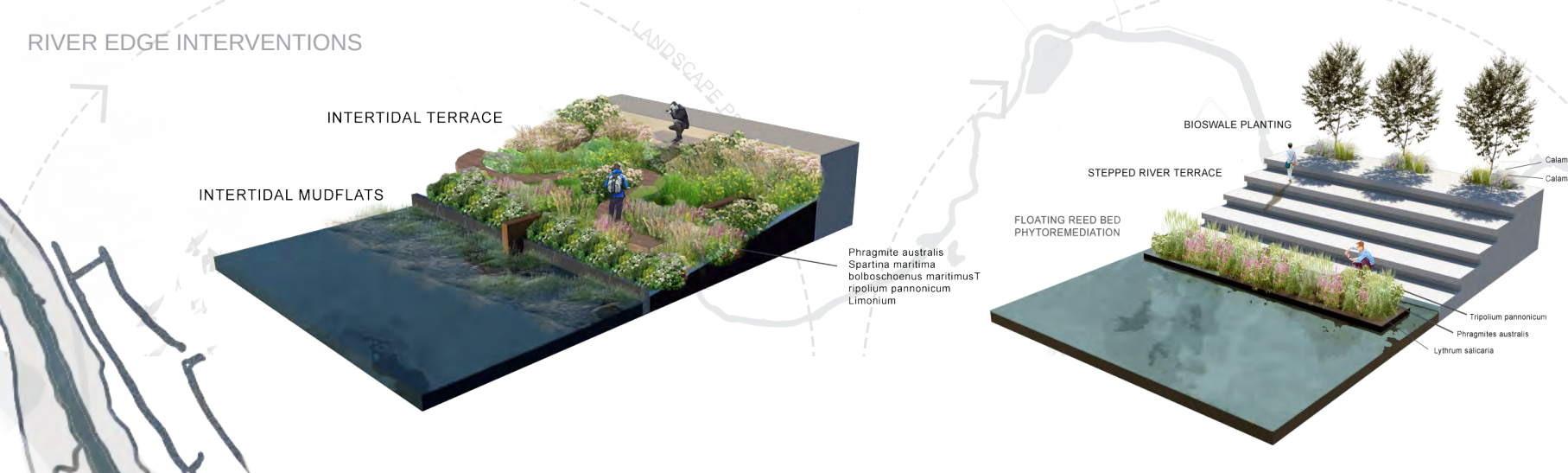

WETLANDS REMOVE 60% OF METALS
D
D
SCALE IN METERS 1:100 @ A1
0 2 4 6 8 10
WETLAND MARSH EDGE
CONSTRUCTED WETLAND
COASTAL GRAZING MARSH
RIVER EDGE WALK
OLD BOAT BIRD HABITAT
CORTEN STEEL FRAMING POLES
RIVER COLNE - NATURAL RIVER EDGE ECOLOGY
MUDFLATS
TEMPORALITY
VISIBILITY
TEMPORALITY
EXPRESSION

CONSTRUCTED WETLAND SECTION

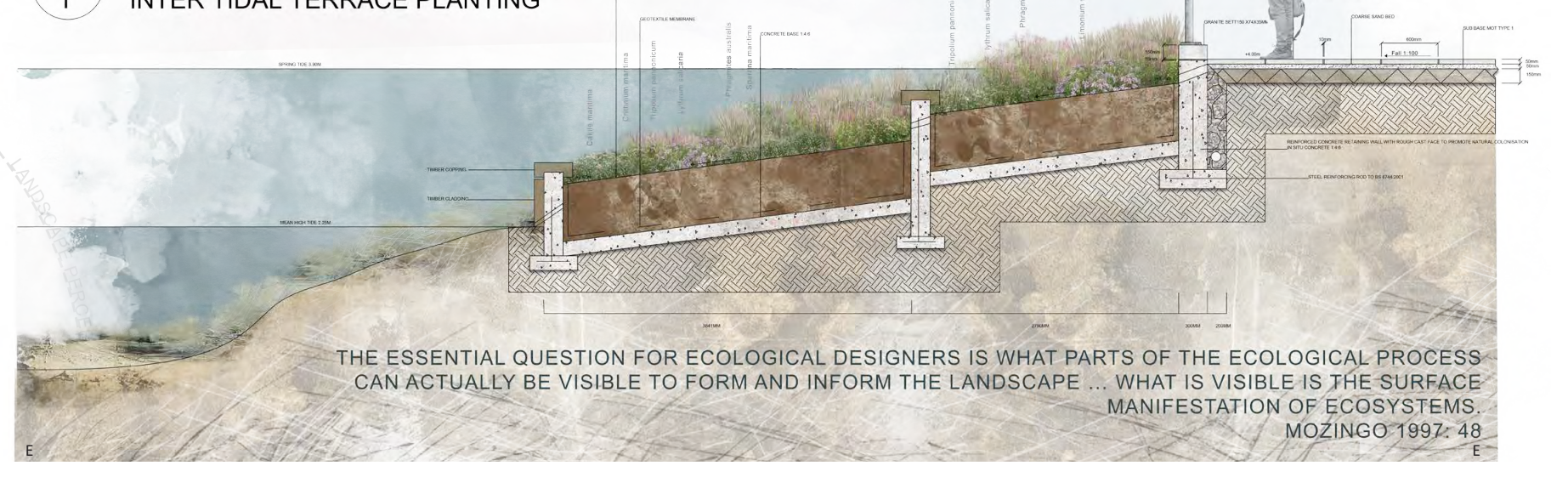
INTERTIDAL PLANTING

The main planting aim for the design is to reconnect the mudflats to salt marshes, whilst reducing pollutant run off into the river through bioswales, rain gardens and intertidal terraces. Due to the intertidal nature of the site, the planting needs to be salt tolerant and withstand partial submersion from spring tides. Therefore, the planting is reflective of native salt marshes, planted in swathes to create a flowing landscape along the river front.

The tidal terraces are planted sparsely with species already existing on site, such as Tripolium pannonicum (Sea aster), Bolboschoenus maritimus (Sea club rush) and Armenia maritima (Sea thrift), from pre-grown stock. Over time, natural colonisation of bankside species should take place (Estuary Edges 2021), whilst other plants such as sea lavender are used within the bioswales to increase the aesthetic and visual quality.

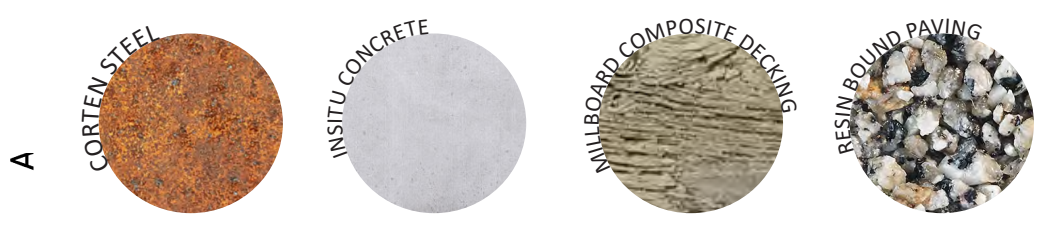

RIVER EDGE INTERVENTIONS
INTERTIDAL TERRACE
INTERTIDAL MUDFLATS
Phragmite australis
Spartina maritima
bolboschoenus maritimus
Tripolium pannonicum
Limonium
BIOSWALE PLANTING
STEPPED RIVER TERRACE
FLOATING REED BED PHYTOREMEDIATION
BIOSWALE WITH INDUSTRIAL ART
STEPPED INTERTIDAL TERRACE
RAISED WALKWAY

1 CONSTRUCTION DETAIL 1:20
1 INTER TIDAL TERRACE PLANTING



THE ESSENTIAL QUESTION FOR ECOLOGICAL DESIGNERS IS WHAT PARTS OF THE ECOLOGICAL PROCESS CAN ACTUALLY BE VISIBLE TO FORM AND INFORM THE LANDSCAPE ... WHAT IS VISIBLE IS THE SURFACE MANIFESTATION OF ECOSYSTEMS.
MOZINGO 1997: 48

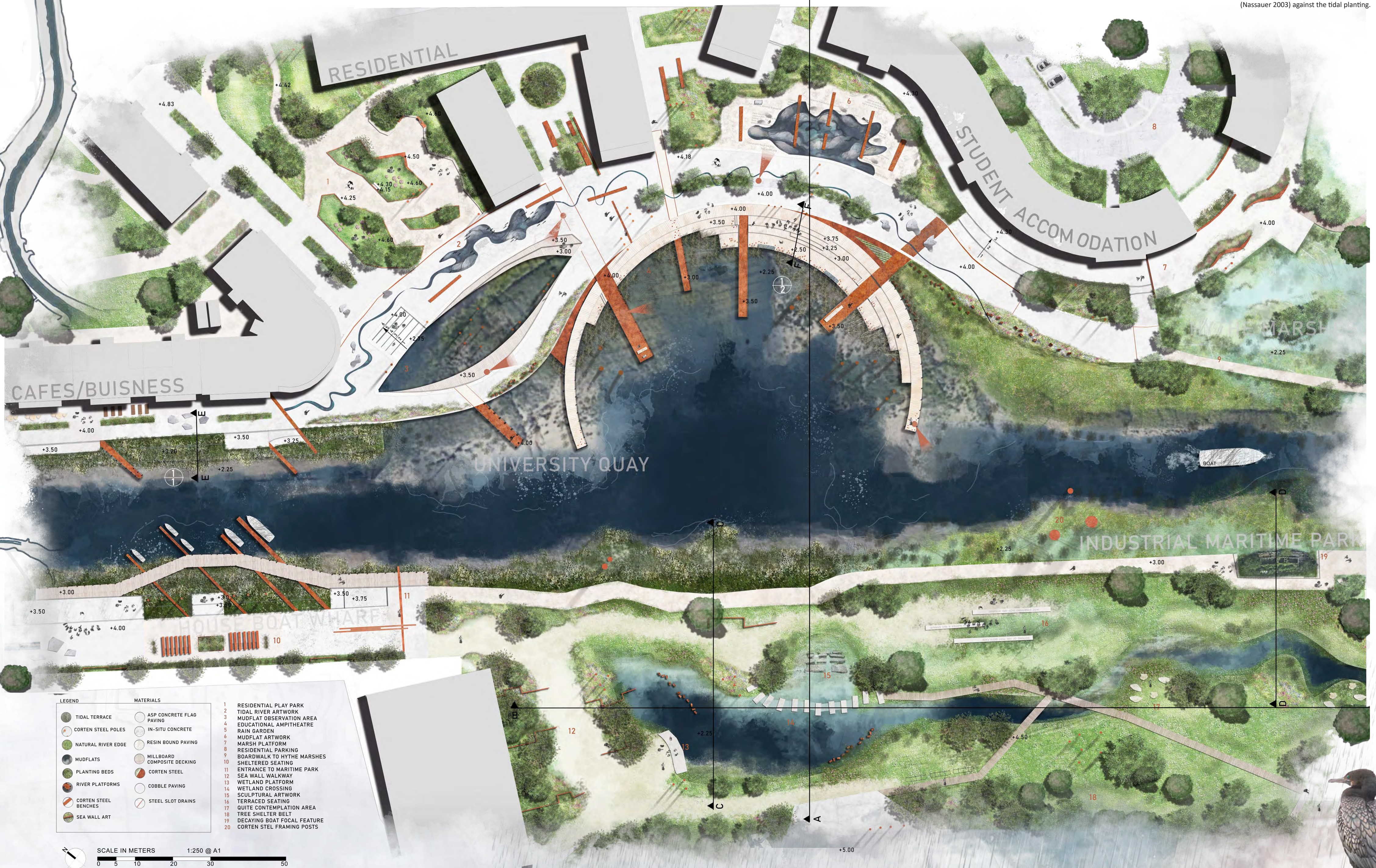
MATERIAL STRATEGY


CORTEN STEEL
INSITU CONCRETE
MILLBOARD COMPOSITE DECKING
RESIN BOUND PAVING

The materials selected for the design respond to the local character and are suited to the industrial context. A mix of hard elements such as repurposed in-situ concrete, cobbled paving and steel are selected due to their durability within the harsh tidal environment. The corten steel provides a strong visual connective element within the design, linking the different areas along the Hythe together, whilst corten steel poles are reminiscent of tide markers used to guide boats, repurposed to provide a visual 'cue to care' (Nassauer 2003) against the tidal planting.

DETAIL AREA

The detail area focuses on University Quay and the Industrial Maritime Park, a new constructed wetland. The design weaves the concepts of Visibility, Expression and Temporality along the river, to revitalise the deteriorating waterfront, whilst retaining the unique industrial character and carving out community spaces. The Hythe's position in relation to the Colne Estuary is preserved through enhancing and protecting the vital mudflat and marsh ecosystems, recognising their aesthetic dimensions to reconnect human to the natural (Berleant 1991). Ultimately, the design looks to create a cultural shift, increasing public awareness on the ecology of the River Colne and altering peoples landscape perception outcome to increase recognition of 'aesthetic values in the environment' (Berleant 1991: xii), to produce a new sustainable landscape aesthetic.


RESIDENTIAL
STUDENT ACCOM ODATION
CAFES/BUISNESS
UNIVERSITY QUAY
INDUSTRIAL MARITIME PARK
HOUSE BOAT WHARF
MARSH
BOAT
+4.83
+4.42
+4.00
+4.50
+4.18
+3.50
+3.00
+3.75
+3.25
+2.25
+4.60
+5.00
A
B
C
D
E
SCALE IN METERS 1:250 @ A1
0 5 10 20 30 50

LEGEND		MATERIALS	
●	TIDAL TERRACE	○	ASP CONCRETE FLAG PAVING
●	CORTEN STEEL POLES	○	IN-SITU CONCRETE
●	NATURAL RIVER EDGE	○	RESIN BOUND PAVING
●	MUDFLATS	○	MILLBOARD COMPOSITE DECKING
●	PLANTING BEDS	●	CORTEN STEEL
●	RIVER PLATFORMS	○	COBBLE PAVING
●	CORTEN STEEL BENCHES	○	STEEL SLOT DRAINS
●	SEA WALL ART		

1 RESIDENTIAL PLAY PARK
2 TIDAL RIVER ARTWORK
3 MUDFLAT OBSERVATION AREA
4 EDUCATIONAL AMPITHEATRE
5 RAIN GARDEN
6 MUDFLAT ARTWORK
7 MARSH PLATFORM
8 RESIDENTIAL PARKING
9 BOARDWALK TO HYTHE MARSHES
10 SHELTERED SEATING
11 ENTRANCE TO MARITIME PARK
12 SEA WALL WALKWAY
13 WETLAND PLATFORM
14 WETLAND CROSSING
15 SCULPTURAL ARTWORK
16 TERRACED SEATING
17 QUITE CONTEMPLATION AREA
18 TREE SHELTER BELT
19 DECAYING BOAT FOCAL FEATURE
20 CORTEN STEL FRAMING POSTS

EXPRESSION

> VERNACULAR CUES TO CARE IMPROVES VISUAL PREFERENCE FOR FUNCTIONAL ECOLOGIES WITHOUT SIGNIFICANTLY REDUCING THE ECOLOGICAL FUNCTIONING OF THE LANDSCAPE
> HANDS AND BROWN 2001: 58

A system of artworks and sculpture trails are developed around the Hythe, in response to the site's maritime history and existing artwork interventions. Inviting local artists and communities to participate in art programmes across the site will increase community engagement and frame the ecology of the river, creating a strong visual contrast between nature and culture.

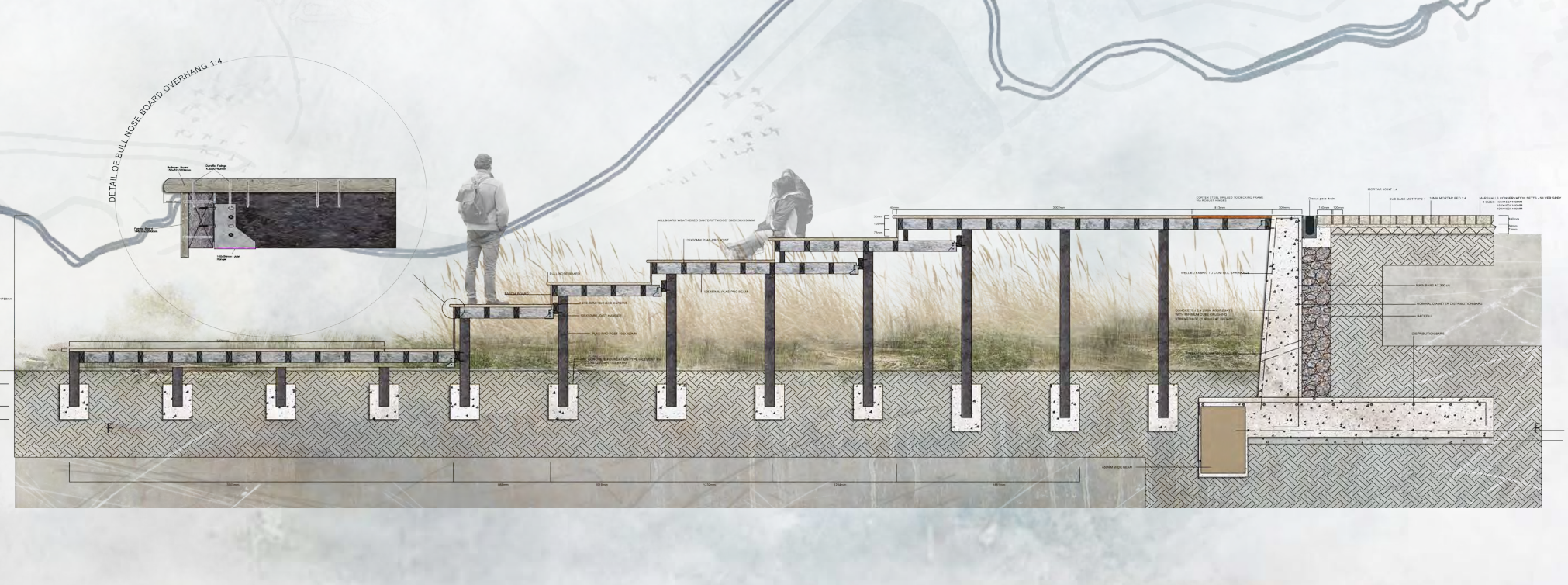
A permanent artwork installation at University Quay recreates the form and flooding of the mudflats, using 'descriptive aesthetics', a combination of 'acute observations [and] compelling language', to convey to the viewer the constant flux of nature within the tidal dominated area, and encourage a 'vivid aesthetic encounter' (Berleant 1992: 26) of the Hythe, whilst also becoming an interactive water feature for children.

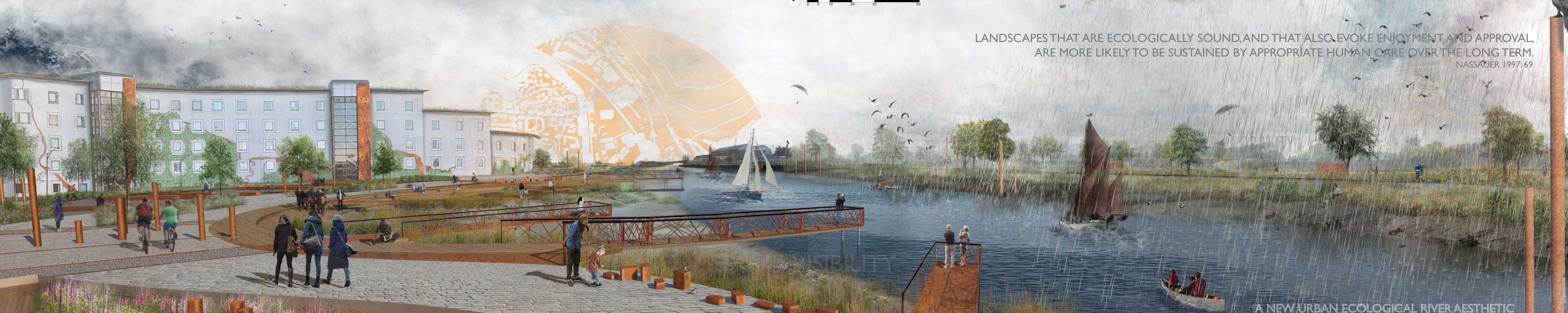
MUDFLAT ART INSTALLATION AXO

VISIBILITY

The site's position next to the University of Essex is utilised to increase the Visibility of ecological functions, with a particular focus on the mudflats. A floating educational amphitheatre is the main focal point, creating an area to observe the mudflats and breeding birds, increasing people's connection to nature in an interactive way, through both objective (cognitive) and perceptual (subjectivist) approaches. This allows the local community to associate a new value to the existing mudflats. Repeated, consistent signage and 'cues to care' (Nassauer 2003) educate the public on the tidal ecology.

1 CONSTRUCTION DETAIL 1:20
2 EDUCATIONAL FLOATING AMPITHEATRE


DETAIL OF BULL NOSE BOARD OVERHANG 1:4


VISIBILITY

> LANDSCAPES THAT ARE ECOLOGICALLY SOUND, AND THAT ALSO EVOKE ENJOYMENT AND APPROVAL, ARE MORE LIKELY TO BE SUSTAINED BY APPROPRIATE HUMAN CARE OVER THE LONG TERM.
> NASSAUER 1997: 69

A NEW URBAN ECOLOGICAL RIVER AESTHETIC

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