Ecological Mediators

PARI RIAHI
University of Massachusetts, Amherst

KEVIN MCMANUS
University of Massachusetts, Amherst

RACHEL LOFFLER
Berkshire Design Group

MICHAEL CANE
University of Massachusetts, Amherst

ALLISON ROY
University of Massachusetts, Amherst

The 'Ecological Mediators' offers resilient solutions along each of Quebec City's four rivers of Cap-Rouge, Saint-Charles, Beauport and Montmorency by considering natural and anthropogeni-cally-altered hydrologic fluctuations (tides, sea level rise, flooding) that define the ecosystems, casting the rivers as mediators of these changing environmental conditions. Turning each of the rivers into a dynamic filter, the project creates built-in capacity for the rivers and their floodplains to absorb and alleviate changes and transformations that might be otherwise devastating. The project foresees controlling water runoff by creating treatment trains with both subsurface infiltration/biofiltration areas and constructed surface wetlands. By designating areas for aquaculture and urban nurseries, there will be a built-in capacity for growth and replenishment of the riverscapes both as practical and educational components that complements the gestures at the landscape and urban level.

The project also creates better access and connectivity in between points of interest on each river and throughout the city by encouraging visitation through contemplative (trails, access areas), performative (open-air theaters, sculpture parks) and recreational (canoe launching, BMX) areas that are available continuously throughout days (tide cycles) and seasons. It is essential to maintain the balance between the natural and the man-made in the unique setting of the city, which is geographically defined by the rivers that shape its territory. Considering the characteristics of the different urban zones—from densely populated neighborhoods to industrial sites and commercial zones— and the natural or altered setting of each of the rivers has led to a network of 'access points' throughout the territory. By rendering the riverscapes more visible, connected, and accessible, our goal is to make the city-dwellers more aware of the rivers and cognizant of their dynamic temporal characteristics. In addition, we have created continuous access to the shore of St-Lawrence, into which the four rivers empty, with a second, all-season connected network of trails in parallel further inland to create a 'loop' that traverses St-Lawrence and returns through a network of paths that would be used for walking, biking, skating, and cross-country skiing.

The project encourages the citizens to appreciate each of the rivers at the macro level by celebrating the geographic and environmental characteristics of each river. At the territorial scale, connecting these rivers in two directions, parallel and perpendicular to St-Lawrence, and creating green pockets along those lines will contribute to a greener, better-connected city.

ECOLOGICAL MEDIATORS

STORE WATER IN ALL ITS FORMS (TIDE, FLOOD, SNOW)

TOUCH THE WATER

CONTEMPLATE THE LANDSCAPE

LOOP THE CITY THROUGH ITS FIVE RIVERS

REPLENISH THE LANDSCAPE

RENATURALIZE THE COURSE OF THE RIVER

DELIGHT IN THE NATURAL BEAUTY OF THE RIVER

EXTEND CITY FABRIC TO THE RIVER

CONTROL WATER RUN-OFF

STROLL ALONG THE RIVER'S EDGE

PERFORM BY THE WATER

Shoreline Path (Exist.)
Shoreline Path (Prop.)
Inland Path (Exist.)
Inland Path (Prop.)

FLOATING DOCK

EXTENDED WALKING

PEDESTRIAN BRIDGE

FLOOD / TIDAL STORAGE

UNDERPASS BRIDGE

WATER RUN-OFF CONTROL

BMX ARENA   AQUACULTURE

AQUATICS FACILITY

PERFORM   WALK   BIKE   RUN   THRILL   SKI   PADDLE

CAP ROUGE
NEW VIEWING PLATFORMS
NEW FLOATING BOARDWALK
NEW FLOATING WETLANDS
NEW PARK (PARC DES ARTS)

ST. CHARLES
SUBSURFACE WETLANDS
PEDESTRIAN BRIDGE
FLOOD / SNOW STORAGE

BEAUPORT
REMOVAL OF THE DAM
TIDE & FLOOD STORAGE AREA
EXTEND THE CITY GRID

MONTMORENCY
HYDROPONIC CENTER & URBAN NURSERY
BMX & SKATEBOARD AREA
CANOE LAUNCH & VIEWING PLATFORMS

CAP ROUGE: FLOATING BOARDWALK & WETLANDS

BEAUPORT: SECTION THROUGH PEDESTRIAN BRIDGE

SAINT-CHARLES: SECTION THROUGH PEDESTRIAN BRIDGE

MONTMORENCY: SECTION THROUGH AQUACULTURE CENTER

HIGH TIDE
LOW TIDE
CAP ROUGE: WETLANDS

CAP ROUGE: PARC DES ARTS

MONTMORENCY: NURSERY AND BMX

ST. CHARLES: REORIENTATION

BEAUPORT: UNDERPASS