TRANCE

nicholas.craigshipes

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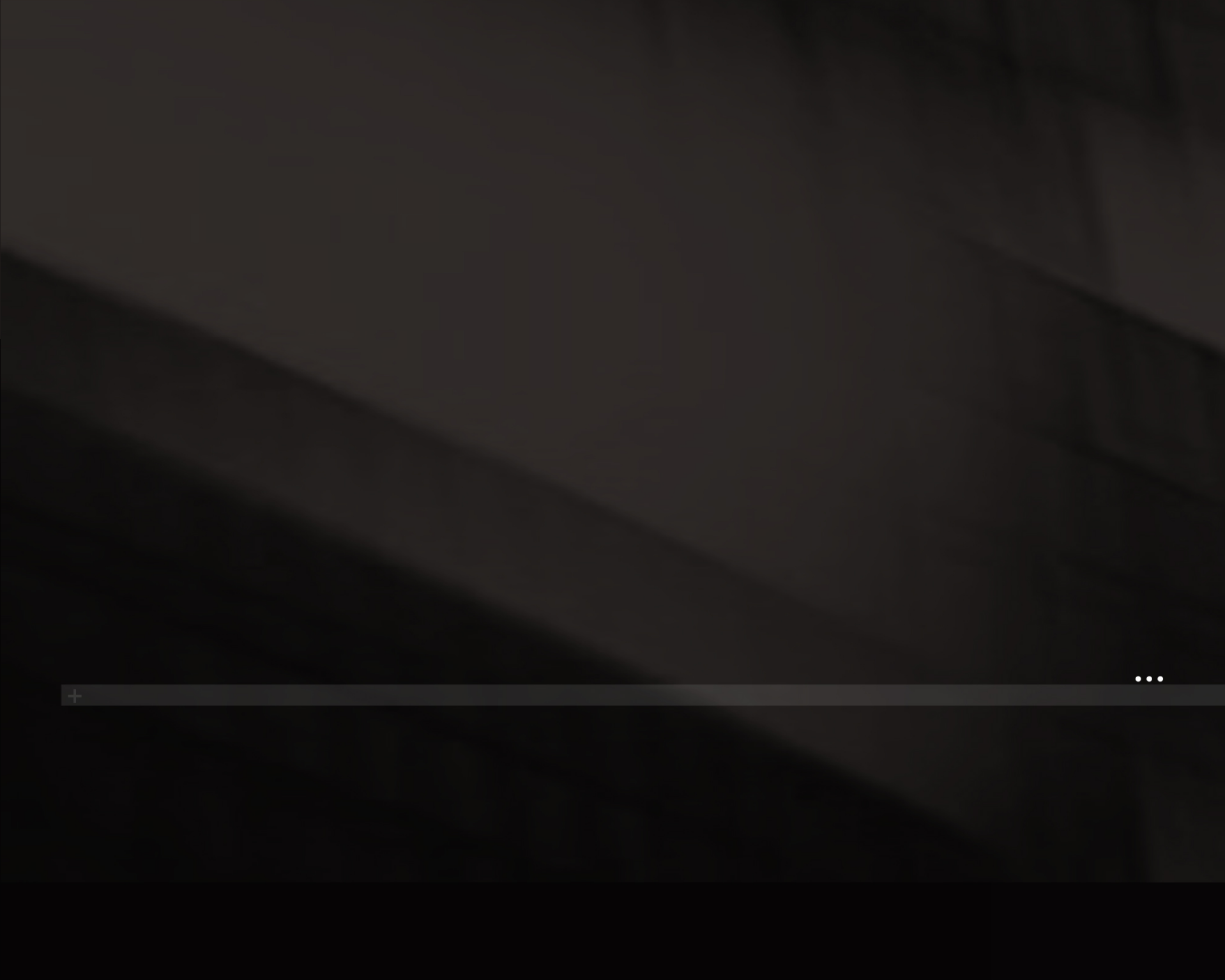
the university of texas at austin

bachelor of architecture

fll2k1_spr2k6



COMPILE.NICHOLASSHIPES

TRANCE is the personal realm of architectural, graphic and digital designer nick shipes in which digitalization and reality fuse to advance into modernistic perceptions of space and existence.

embedding himself into design for the last seven years, nick has used the last four as a highly intensive basis for research, experimentation and investigation. a passion for design exists further than his studies in architecture—expanding into all forms of digital existence. there is promise with the rise in technology and computers that is beginning to transform society, thought and culture. no longer will physical space remain static and lifeless. ubiquitous computing and pervasive interaction will push design and architecture into unfamiliar territories of interactivity and interconnectedness.

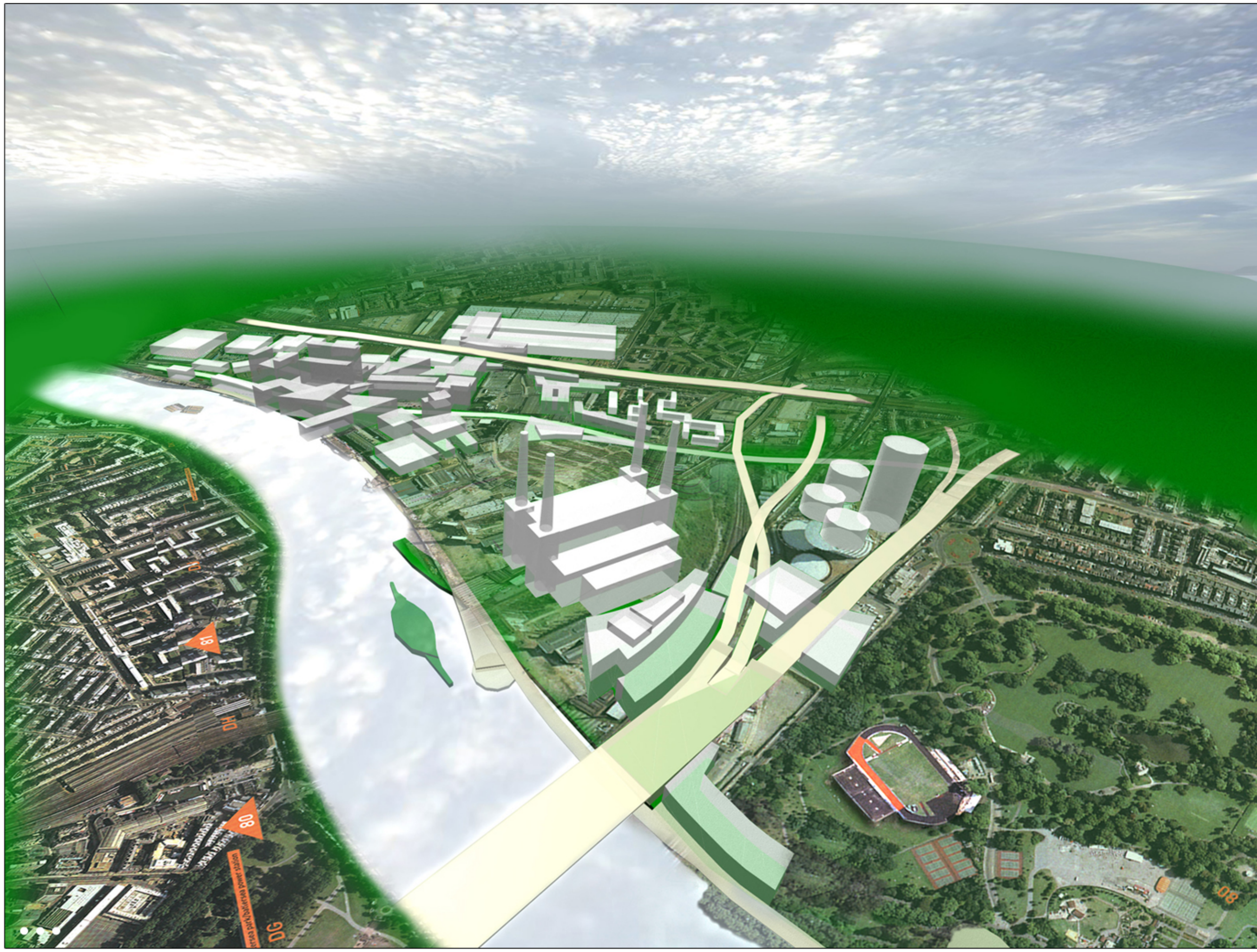
each project is seen as an opportunity for research—research beyond the forefront design problem at hand. design problems are rigorously examined with respect to culture, society, science and digitalization and the implications they may have on the final resolution. society will no longer want buildings and spaces that just feel good or are only aesthetically pleasing. instead, they must work for them and with them in a new role in which advances in modern technology offer.

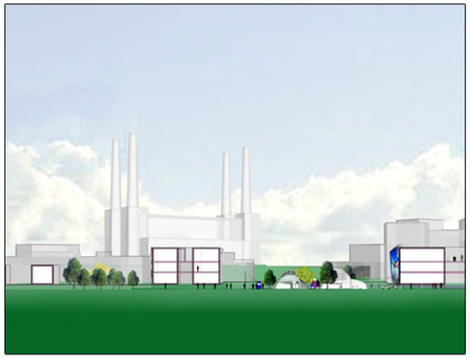
the following are experiments in design, architecture, urbanity, society and more importantly the role of progressive digital technology.

FLL2K4.SUSTAINABLELONDON

sustainability – the Olympic legacy. as we have progressed through the latest series of Olympic Games, the legacy and issues of sustainability have played an increasingly crucial role in the realization of the Games. no longer is there the desire to have such global events in our cities, lasting merely for two weeks, that provide no benefit to the city, its inhabitants, or to the world population. the latest models of the Games realize such a threat but still are reluctant to properly implement beneficial solutions. as a result, we are left with derelict, empty wastelands in our Olympic host cities after the Games have departed. where is the legacy in that?

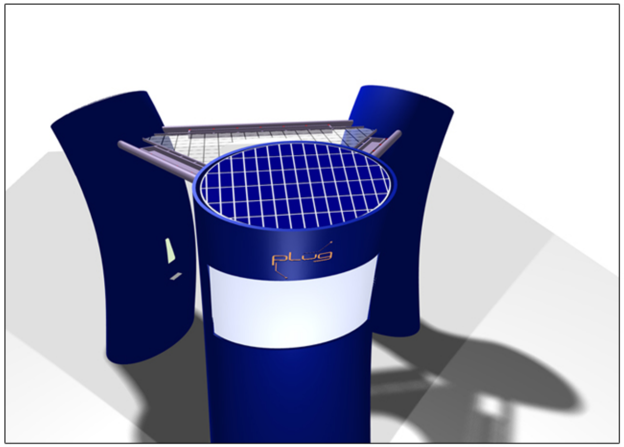
sustainability through the model of the Olympics takes on a more involved meaning than simply dealing with environmental concerns. our host cities need to evolve into global educators, hubs of intelligence, information and culture through the development of innovative sustainable demonstrations that merge to become the basis for a new Olympic model.

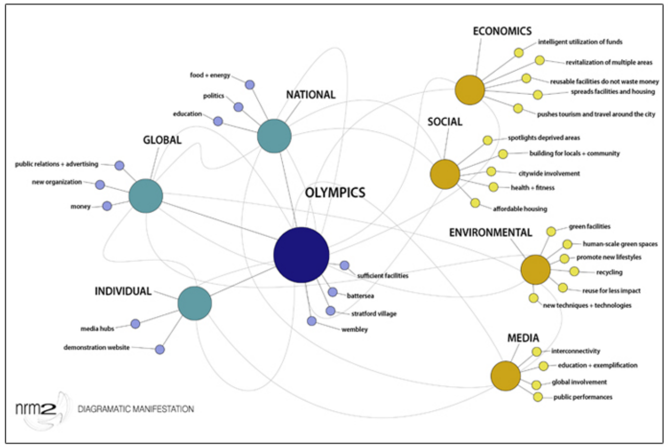


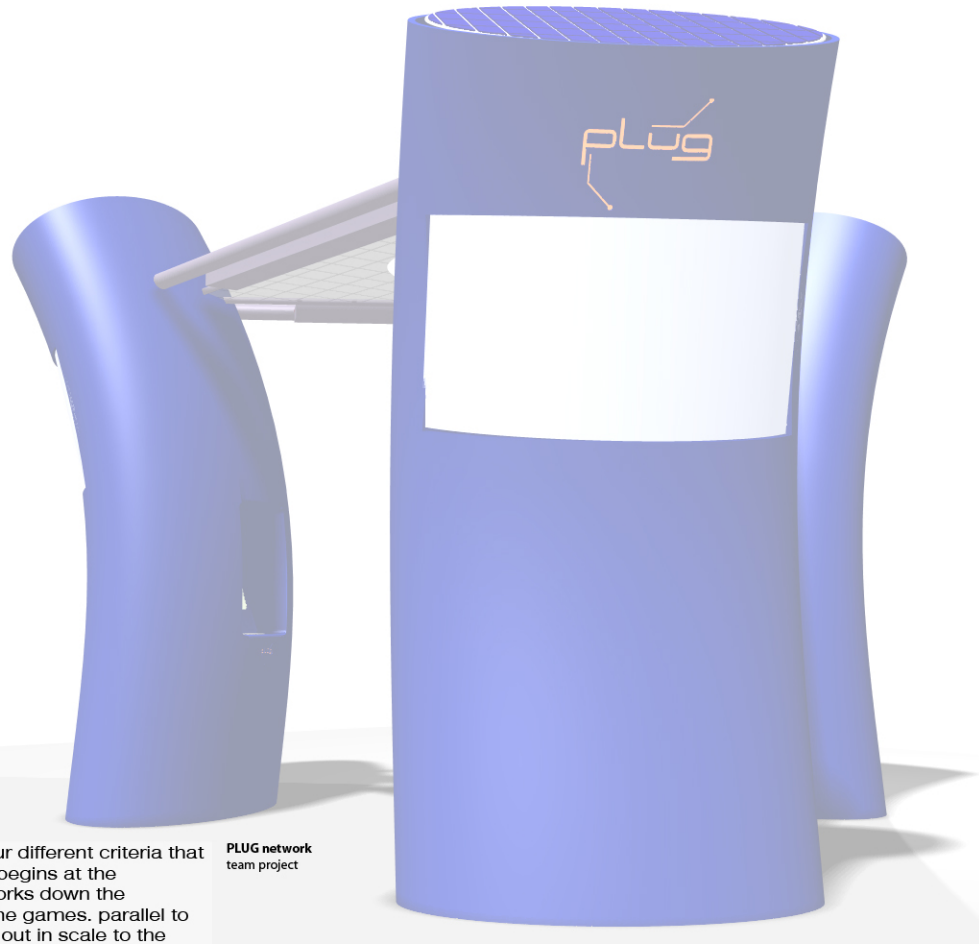


^ battersea power station proposal

> PLUG network







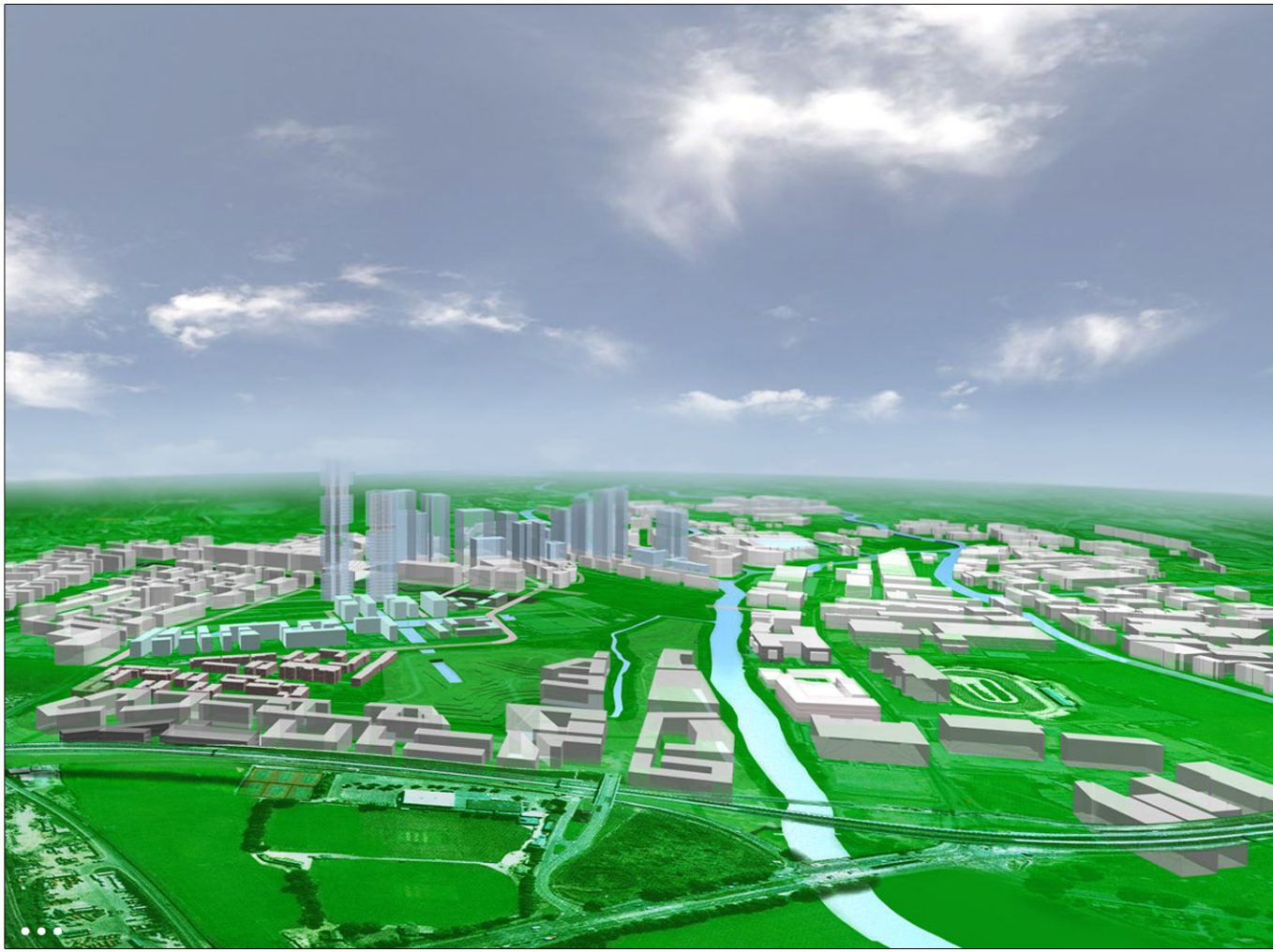
PLUG network
team project

• • • our proposal incorporates four different scales and four different criteria that must be realized at each of those scales. the project begins at the neighborhood scale sparked by the Olympics, then works down the individual and their interaction and involvement with the games. parallel to this reduction in scale to the individual, we also move out in scale to the national and eventually to the global scale. the criteria of the triple bottom line, which consists of social, economic and environmental issues, work in conjunction with the informational power of the media and manifest themselves at each of the scales.

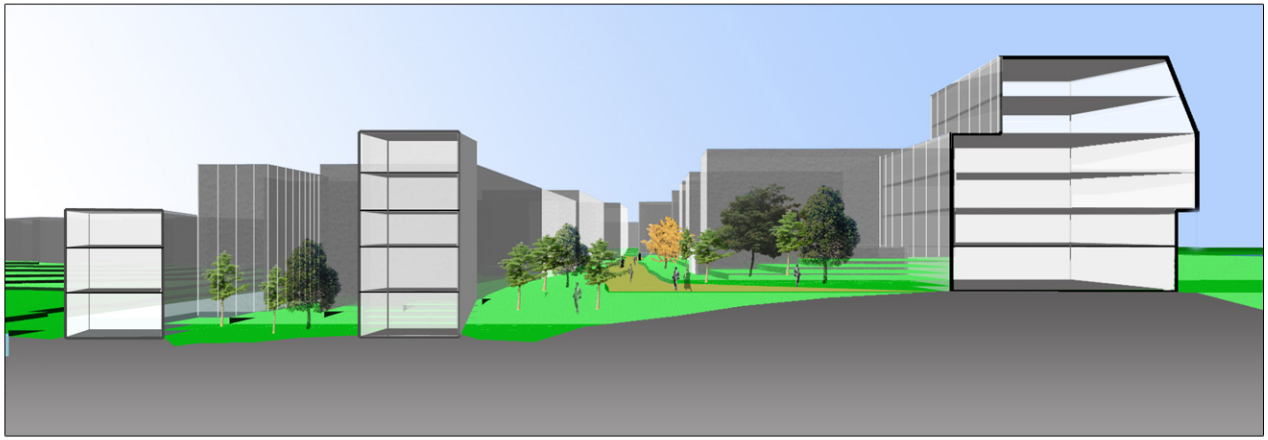
interactive digital media and the social environments that digital networks, media and technology construct are developing into a new form of power, one that is powered also by a new source of energy—the microchip. our proposed PLUG network begins to transform the Olympic model as a binding component to the multiple scales and criteria by providing widespread free and open access to not only Olympic events during the Games, but also to the terabytes of information available through the internet's vast global network after the Games. much more educated, intelligent societies will emerge. cities will become their own universities, educating their populous on sustainability, efficiency, democracy and equality.

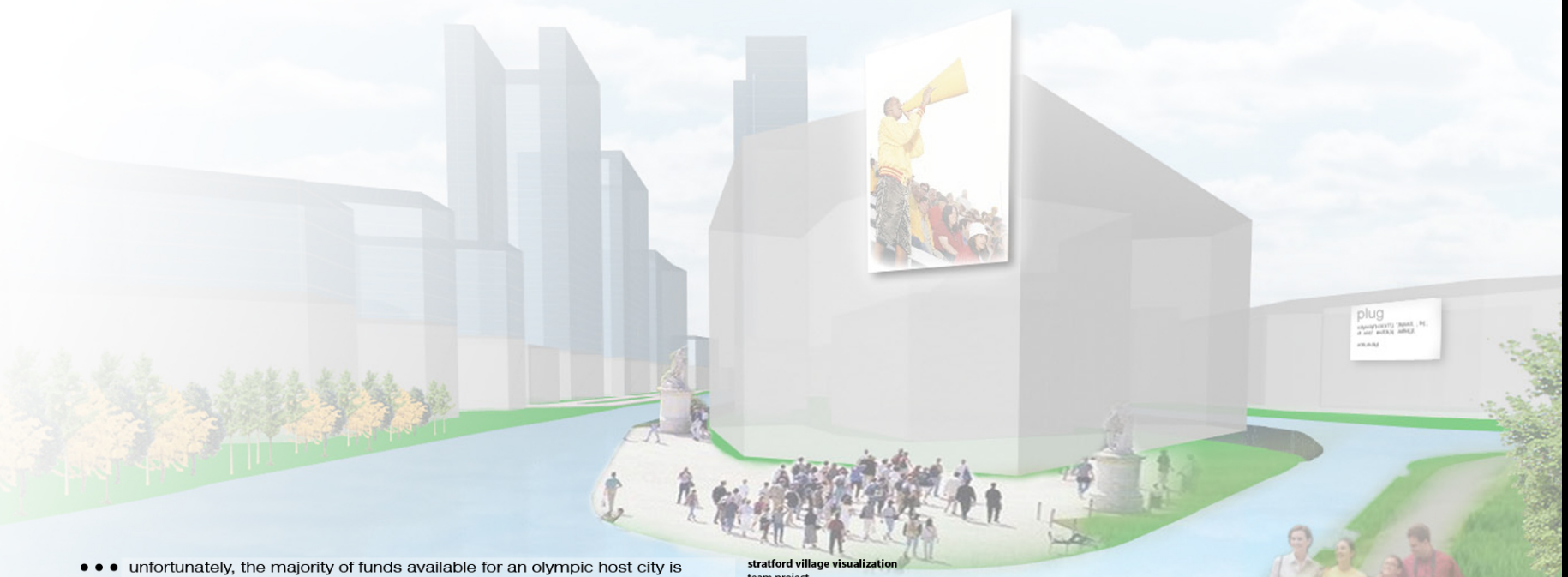
• • •

^ sustainablelondon.com



> **section** // stratford olympic village





stratford village visualization
team project

• • • unfortunately, the majority of funds available for an olympic host city is appropriated for constructing new, pristine olympic venues with little thought given to how they will be utilized after the games. the result are white elephants – derelict, barren wastelands emerging from non-functional olympic stadiums and venues. the money saved by using existing facilities can be redistributed to fund more intelligent social, economic and environmental projects where London can be the global demonstration of this new olympic model at work.

these concepts manifest themselves physically at two London sites: battersea power station and stratford village. our battersea proposal allows the raw, yet familiar, character of the historic power station to remain, leaving its function as a power generator intact. it will revert back to its function to become a power station for new energy, a modern incubator for innovation, and educational research laboratory for new, inventive energy production and consumption.

the lea valley encompassing stratford city is broken into two villages to promote sustainable living: a northern site that emphasizes the park setting and is primarily residential and scaled to the pedestrian; a southern village built with regard to the canal structure that is denser, incorporates boardwalks and plazas and consists primarily of mixed-use programs.

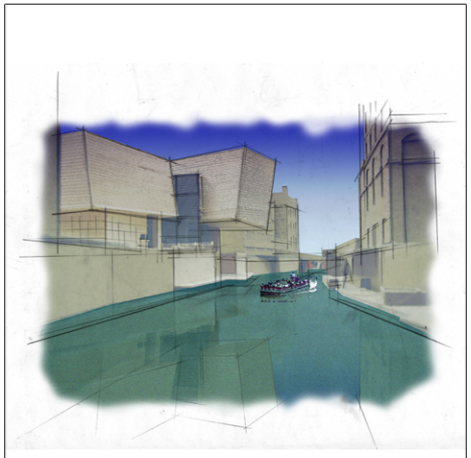
• • •

SPR2K4.URBANCINEMACOMPLEX

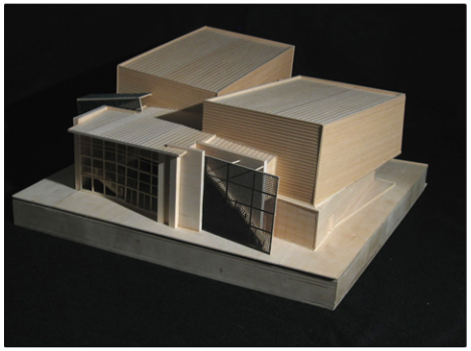
architecture, like cinema, exists in the dimension of time and movement where one conceives and reads a building through a series of sequences, and buildings are the continuous shot sequence of visual and experiential cuts and edits, framings and openings. the result is a series of carefully disposed phenomena -- a succession of perspectives discovered by the traveling eye.

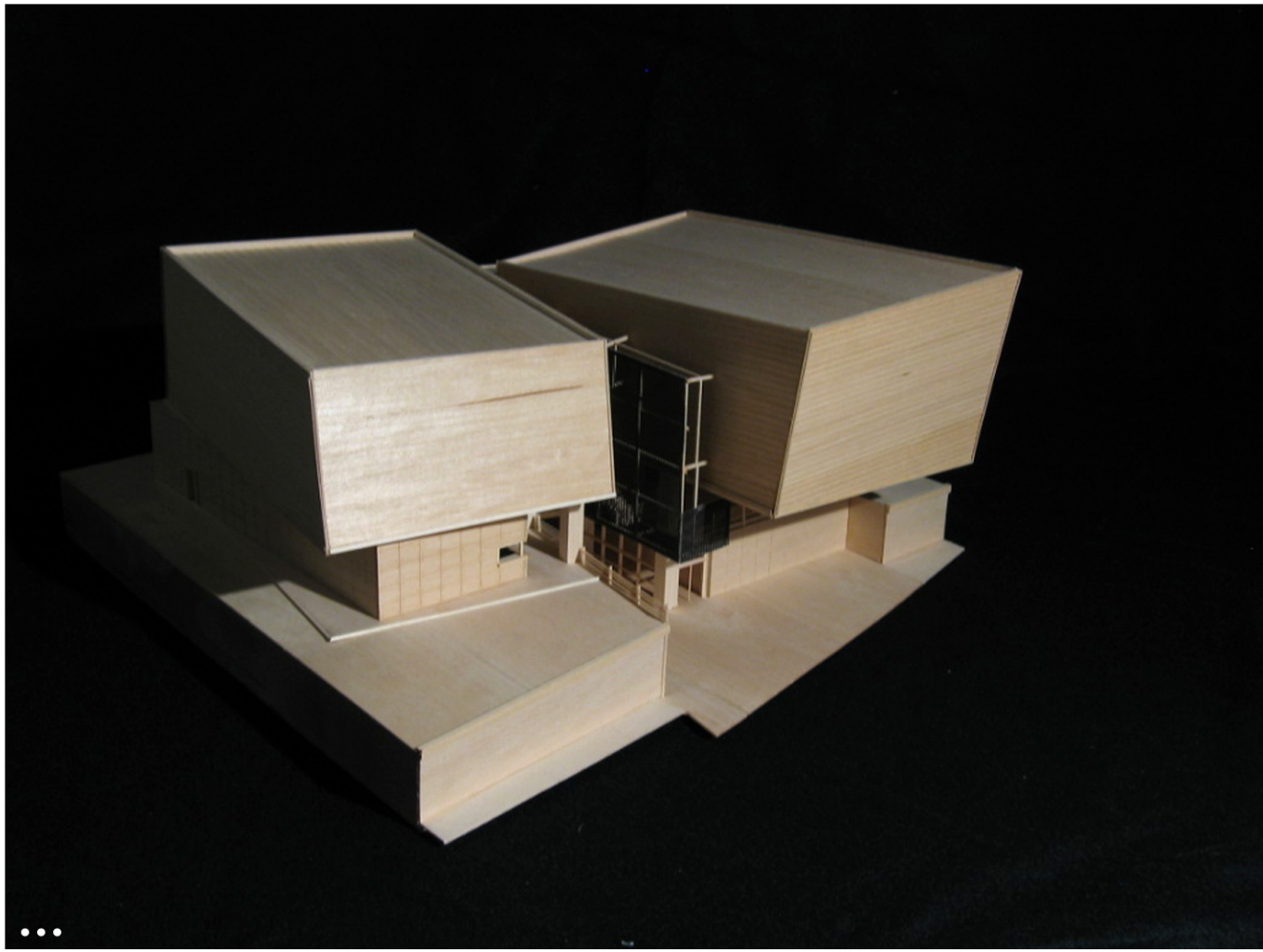
according to le corbusier, :: cinema and modern architecture construct a similar relationship between a viewing subject and a viewed object in which film marks a revolution in spatial representation and architecture, in turn, marks a complementary revolution in spatial articulation. ::

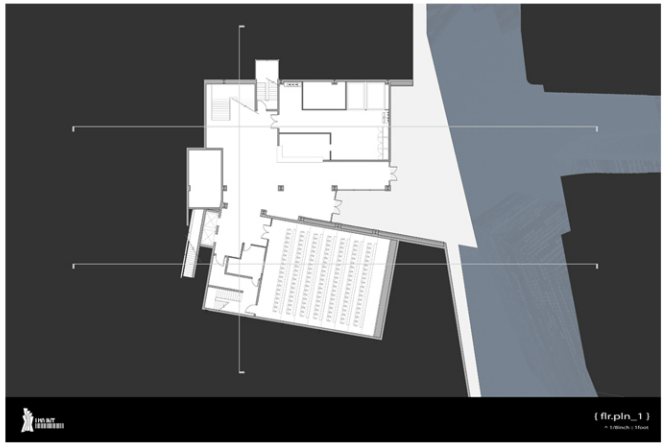
it is the restructuring and articulation of time that becomes essential to both architecture and cinema -- the unstable image -- and occurs through sequential re-ordering, speeding up, slowing down, freezing and reversing. we exist among mental worlds where past memories of imagination and experience intermix with images of the present and notions of the future.



{ rivr.perspectv }

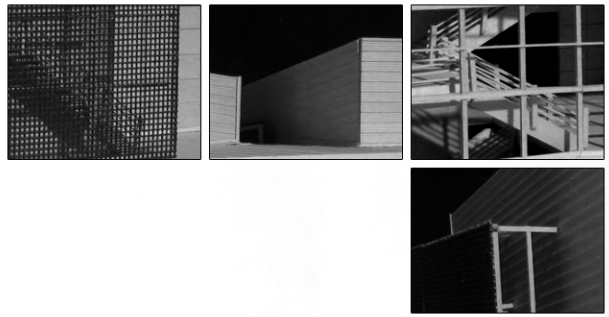


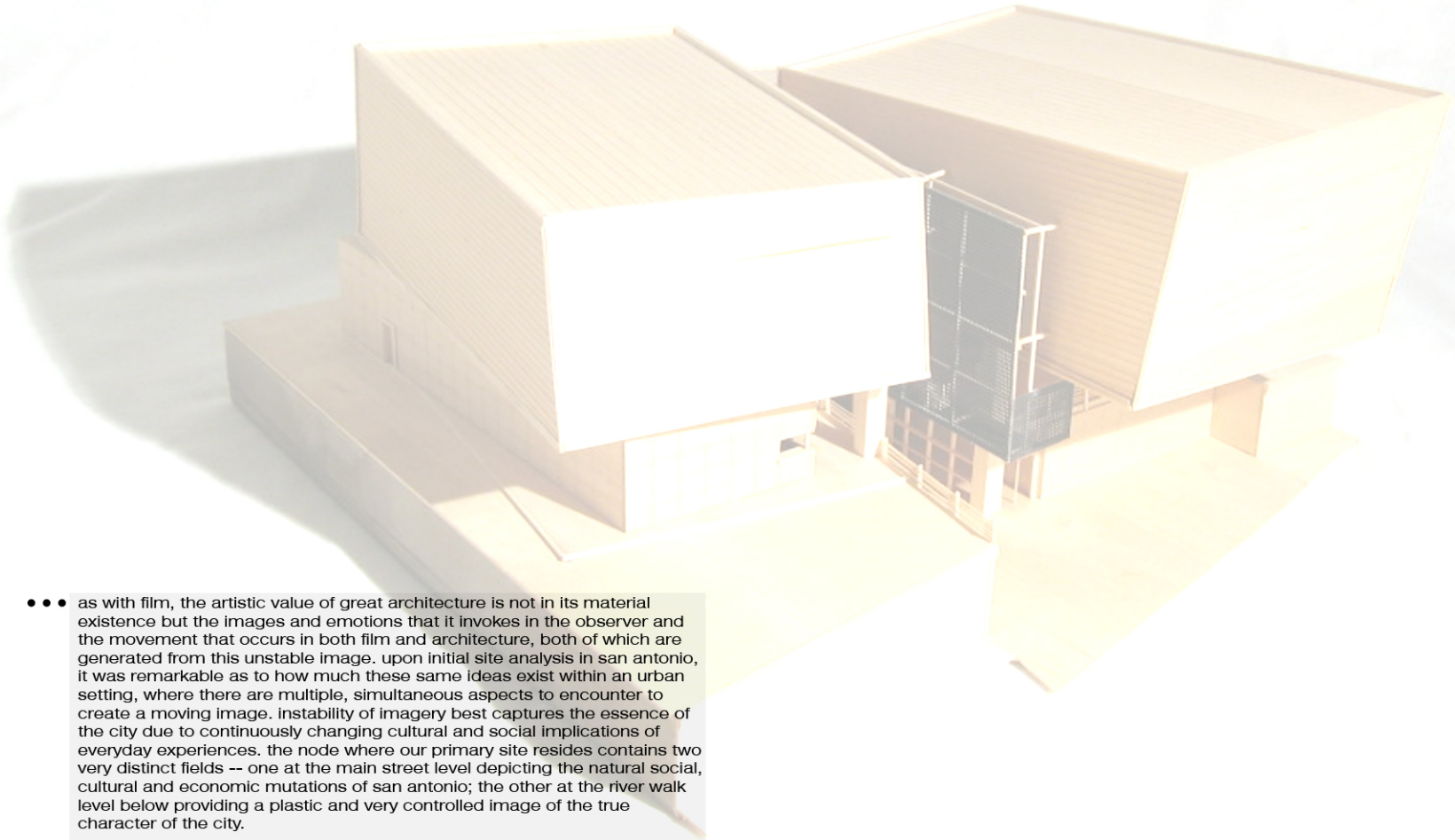




{ flr.pln_1 }

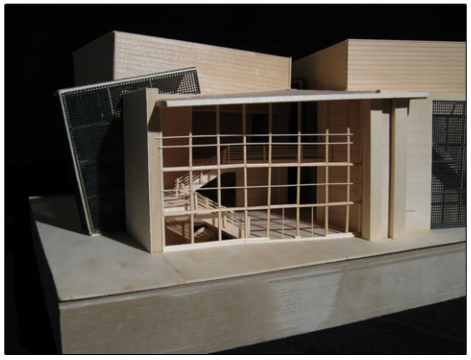
{ flr.pln_3 }





• • • as with film, the artistic value of great architecture is not in its material existence but the images and emotions that it invokes in the observer and the movement that occurs in both film and architecture, both of which are generated from this unstable image. upon initial site analysis in san antonio, it was remarkable as to how much these same ideas exist within an urban setting, where there are multiple, simultaneous aspects to encounter to create a moving image. instability of imagery best captures the essence of the city due to continuously changing cultural and social implications of everyday experiences. the node where our primary site resides contains two very distinct fields -- one at the main street level depicting the natural social, cultural and economic mutations of san antonio; the other at the river walk level below providing a plastic and very controlled image of the true character of the city.

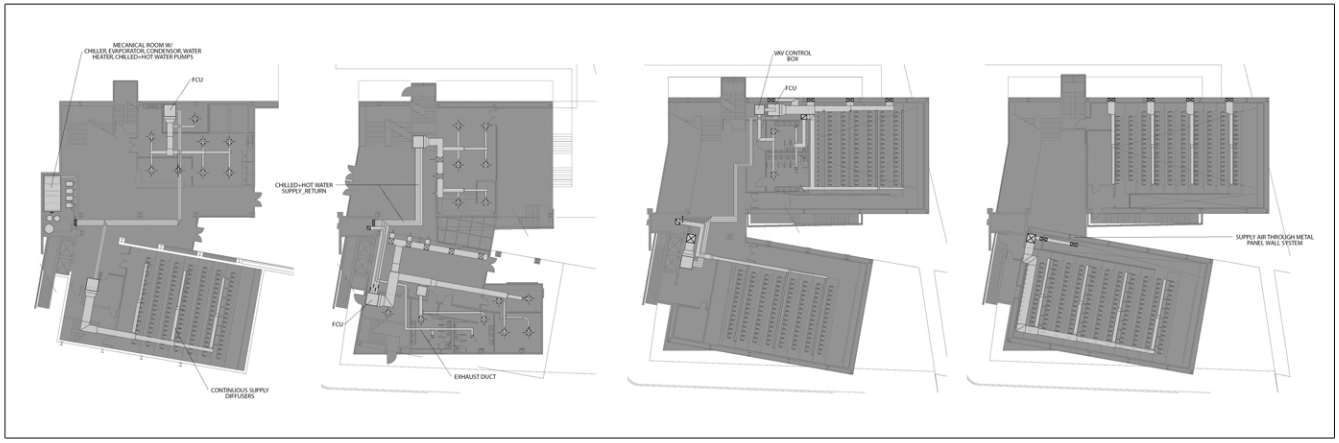
{ rivr.perspectv }

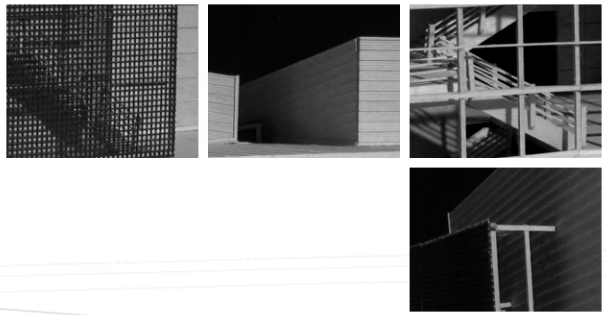


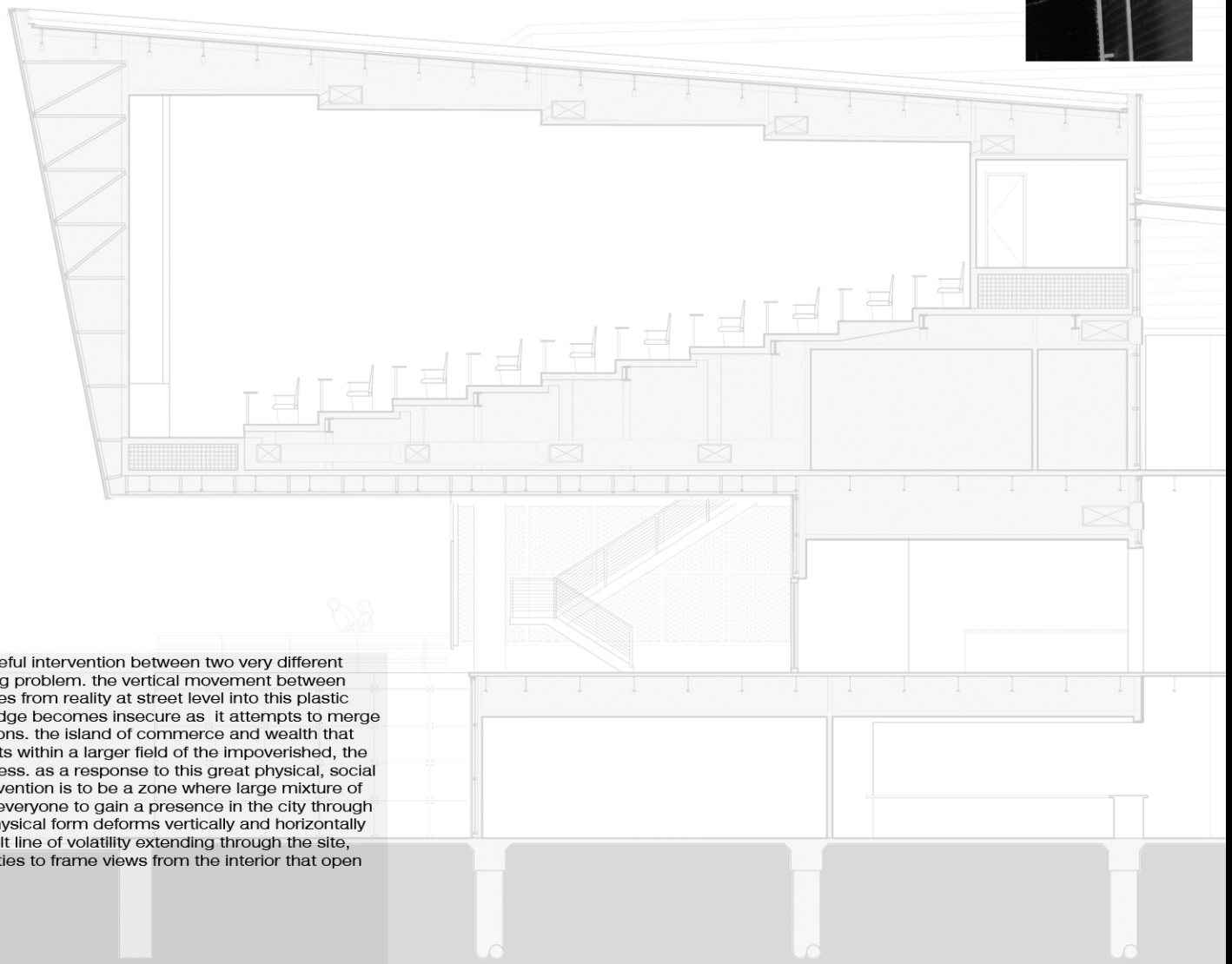
> heating + cooling systems

{ bldng.sctn }

^ 1/8inch :: 1foot







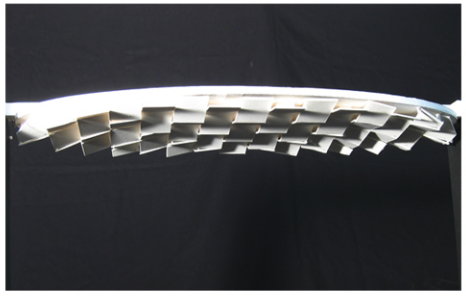
• • • the threshold and one's forceful intervention between two very different fields becomes an interesting problem. the vertical movement between these two fields as one moves from reality at street level into this plastic experience along the river edge becomes insecure as it attempts to merge and balance the two conditions. the island of commerce and wealth that surrounds the river walk floats within a larger field of the impoverished, the unemployed and the powerless. as a response to this great physical, social and economic flux, my intervention is to be a zone where large mixture of people converge – allowing everyone to gain a presence in the city through each other. therefore, the physical form deforms vertically and horizontally as if to suggest a type of fault line of volatility extending through the site, providing multiple opportunities to frame views from the interior that open out to the city.

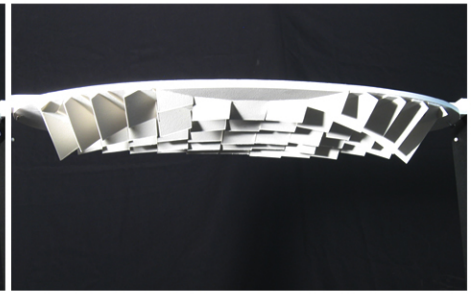
SMR-FLL2K5.WEISS/MANFREDIARCHITECTS

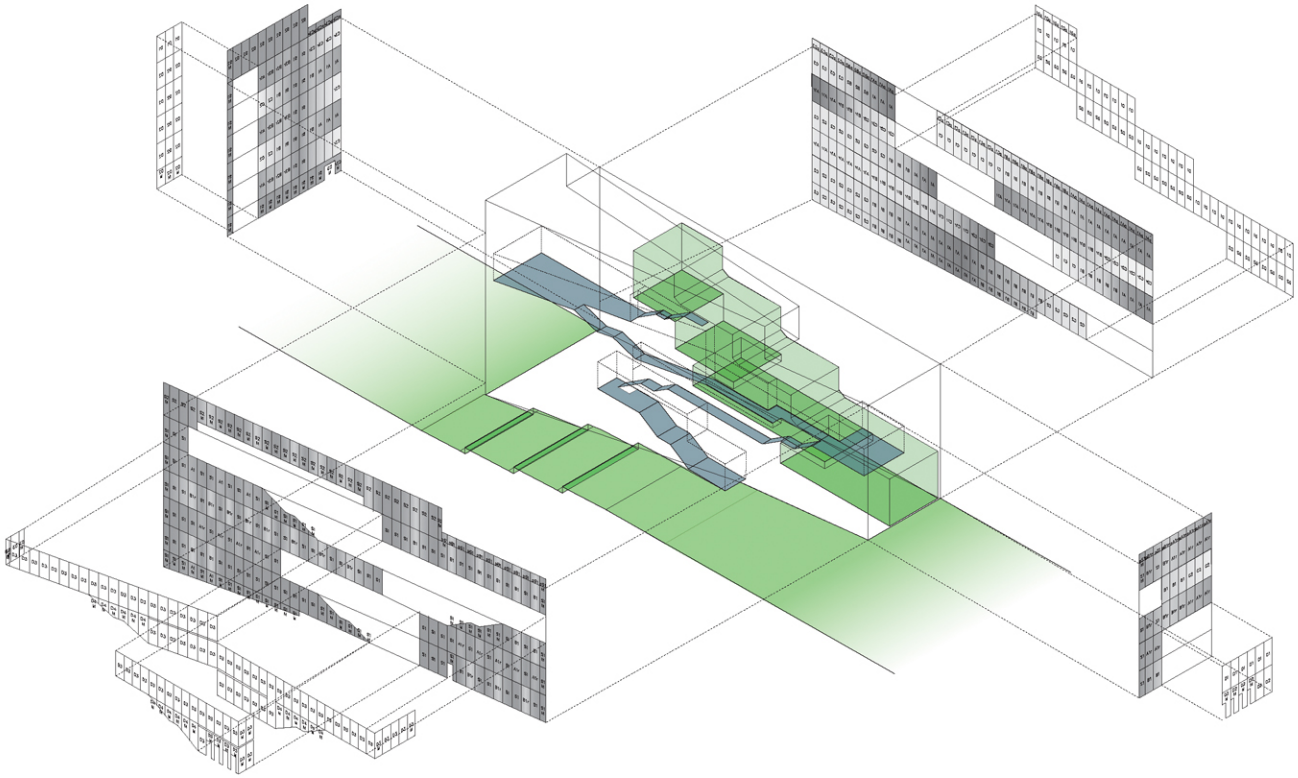
the summer and fall sessions of my final undergraduate year took place while working with weiss/manfredi architects in new york city during the professional residency program. the program spanned a period of seven months from june through the end of december. this rewarding opportunity provided a more insightful and rigorous experience which weighed heavier on the repetitious design process rather than technical concentrations received in other architectural intern positions. every aspect of design was carefully analyzed and in many cases taken through an exhaustive iteration in order to test all possibilities.

^ 1/4" scale detailed study model

> event space ceiling study iterations



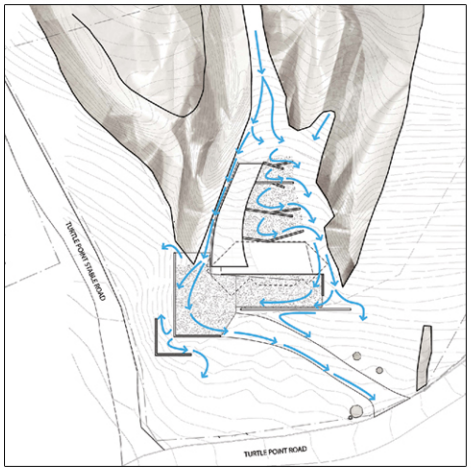


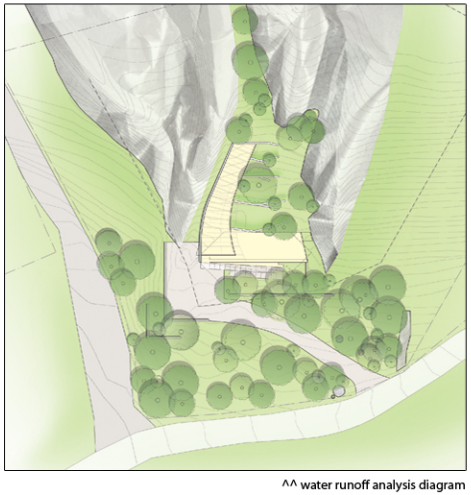


barnard college nexus is a new, multi-use arts center for the barnard campus in new york city, and strives to re-link the heart of campus to the historic milbank hall nearby. landscape serves as the primary catalyst for the new design to extend the realm of lehman lawn in two directions: northward, through a ramp and stepped terrace to connect to the milbank garden court and, vertically, into an ascending internal garden that brings landscape and light into the public spaces of the new nexus building. envisioned as an innovative center of campus life, the functions of a theater, café, special events space, exhibition gallery, and fine art and architecture studios are linked vertically by a series of stairs, pathways, and internal views—revealing the diverse activities of the nexus arts center.

involvement in the barnard college nexus project was primarily with the design development phase. intricate studies were executed through the use of physical models at all scales, especially at larger scales, in order to further progress the design of interior spaces and materiality during multiple iterative processes. additional work completed on the project incorporated presentation, exhibition and publication graphics and visuals.

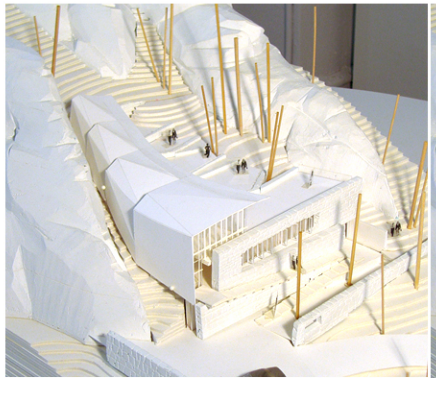
design thesis diagram

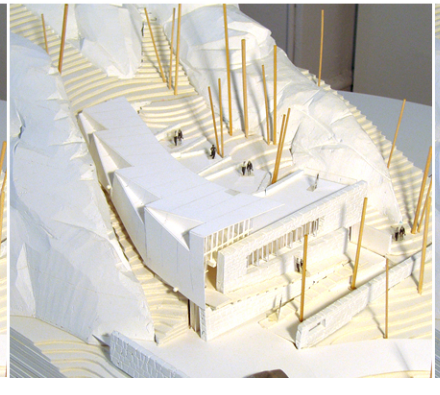


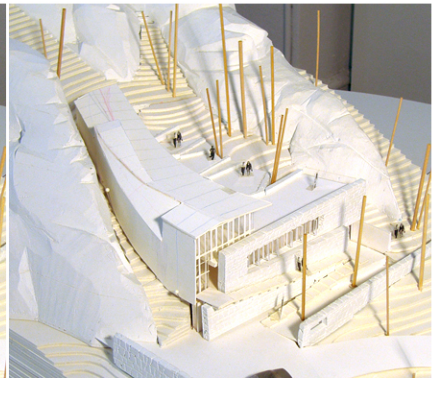


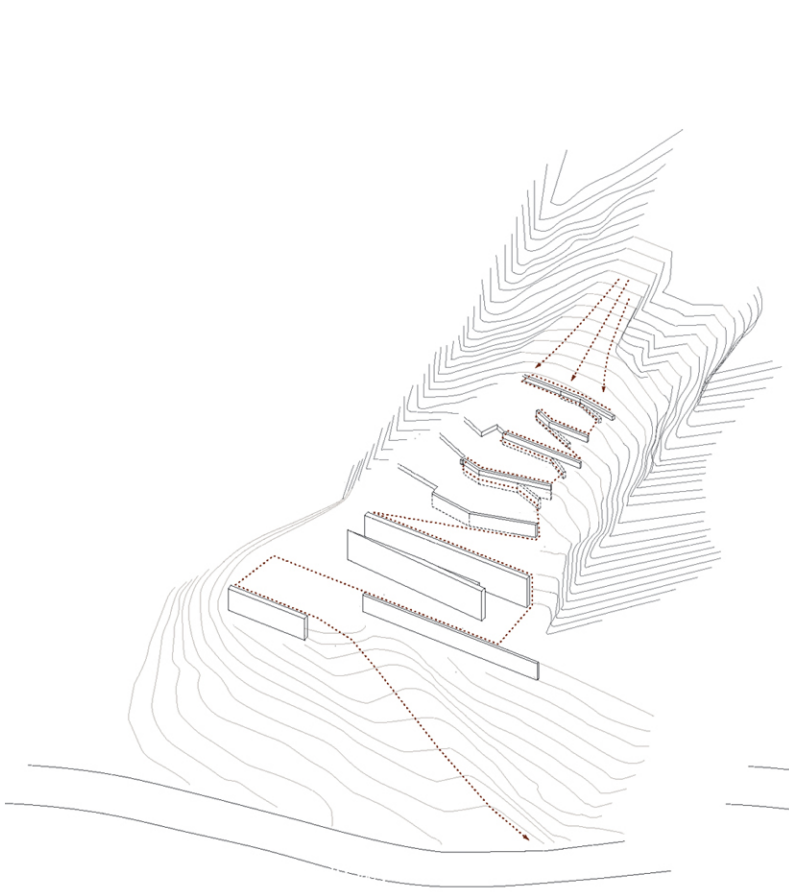
^^ water runoff analysis diagram
^ site plan

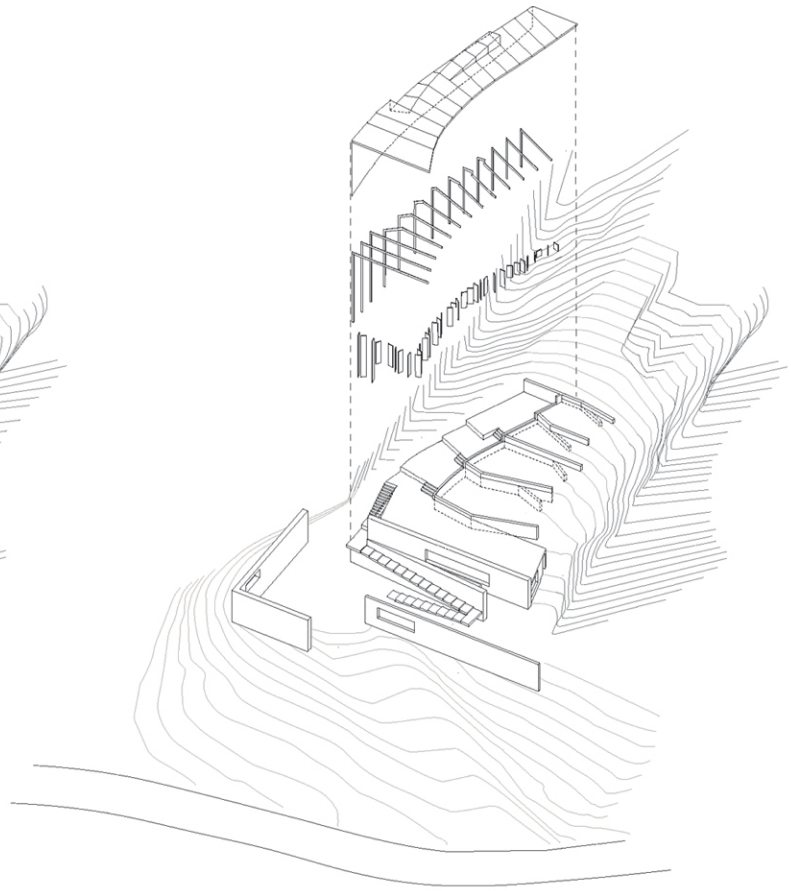
> iterative roof design process











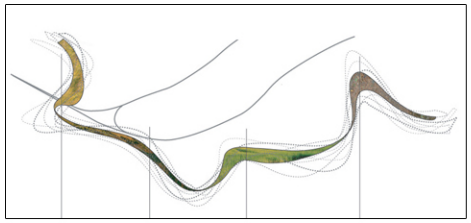
the mccann residence is situated on a site in between two massive granite escarpments arising from a steep slope and within view of tuxedo lake. the stark and dynamic sectional character of the topography and the critical consideration of water run-off are key elements of the design. the site's steep slope is marked by a series of new stone retaining walls that also decelerate water run-off into the lake below. an ascending route organizes the program of the new residence, defining the zones in section and linking each level of the house to a series of outdoor terraces.

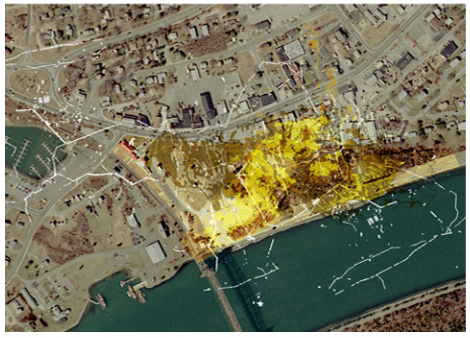
personal involvement in the mccann residence project extended for two months during the early design development phase. design investigations were heavily dependent on physical modeling and occasional digital modeling for material studies. a series of iterative studies were conducted to explore potential roof strategies and how they related to the project's primary condition of serration. additional work performed included the design and development of awards and presentation visuals.

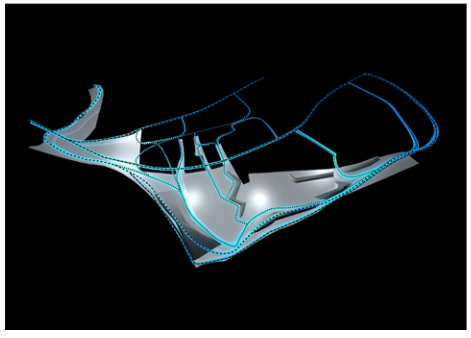
design thesis diagram

SPR2K5.OPERATIVELANDSCAPE

the studio focused on a competition held by the community of buzzards bay, massachusetts whose main objective was to create an intergenerational recreation area and cultural amenity for the use of local residents while encouraging downtown economic redevelopment. the project addressed concerns for recreation and public uses, emphasizing ecology and conservation, a harmonious involvement with the residents' day-to-day lives, and reflecting cape cod ambience, quality of life, water resources and open space. additionally, the project sought to reconnect the main street business district to the northern residential neighborhoods, whose previous connections were severed with the construction of the bypass through the community.

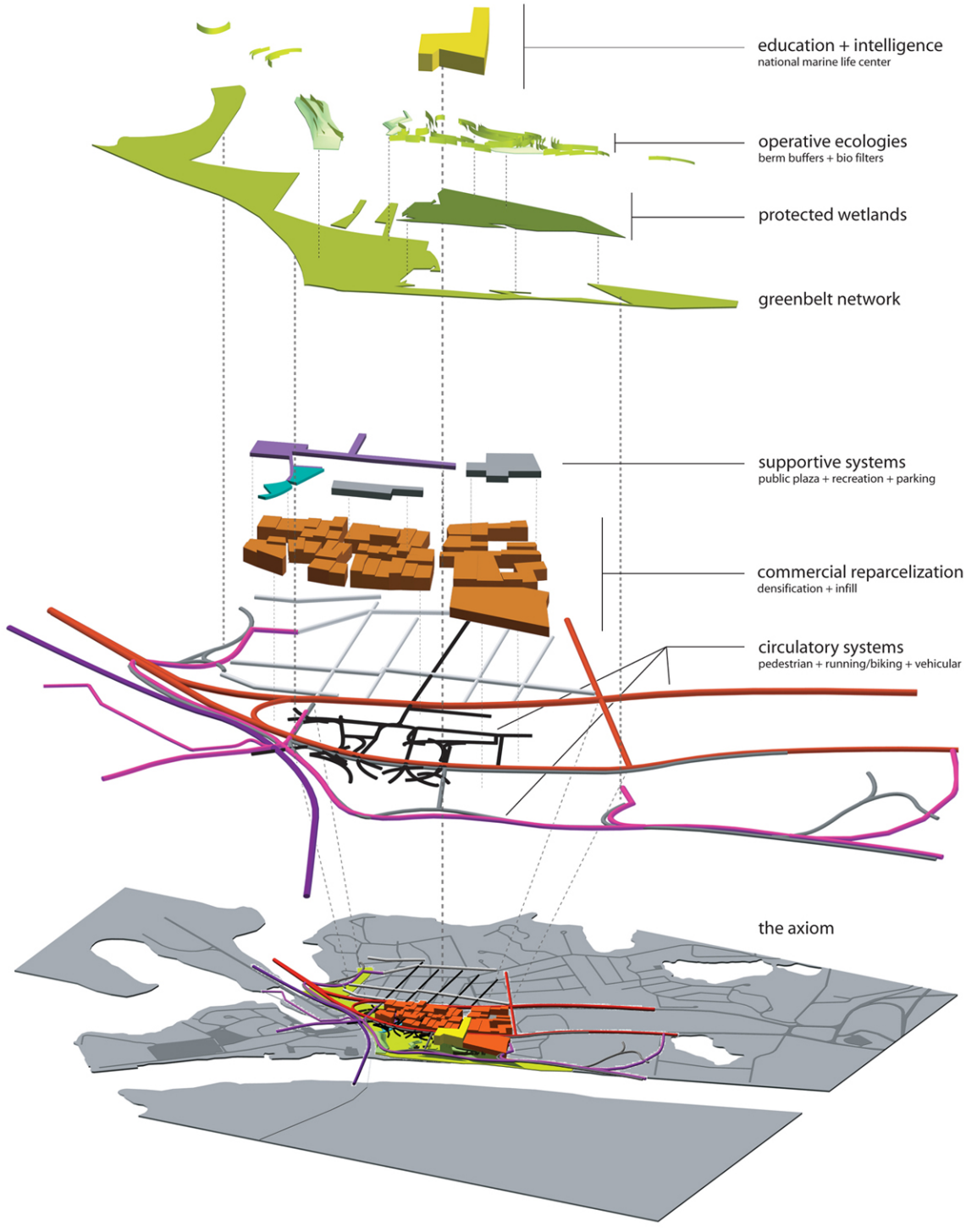


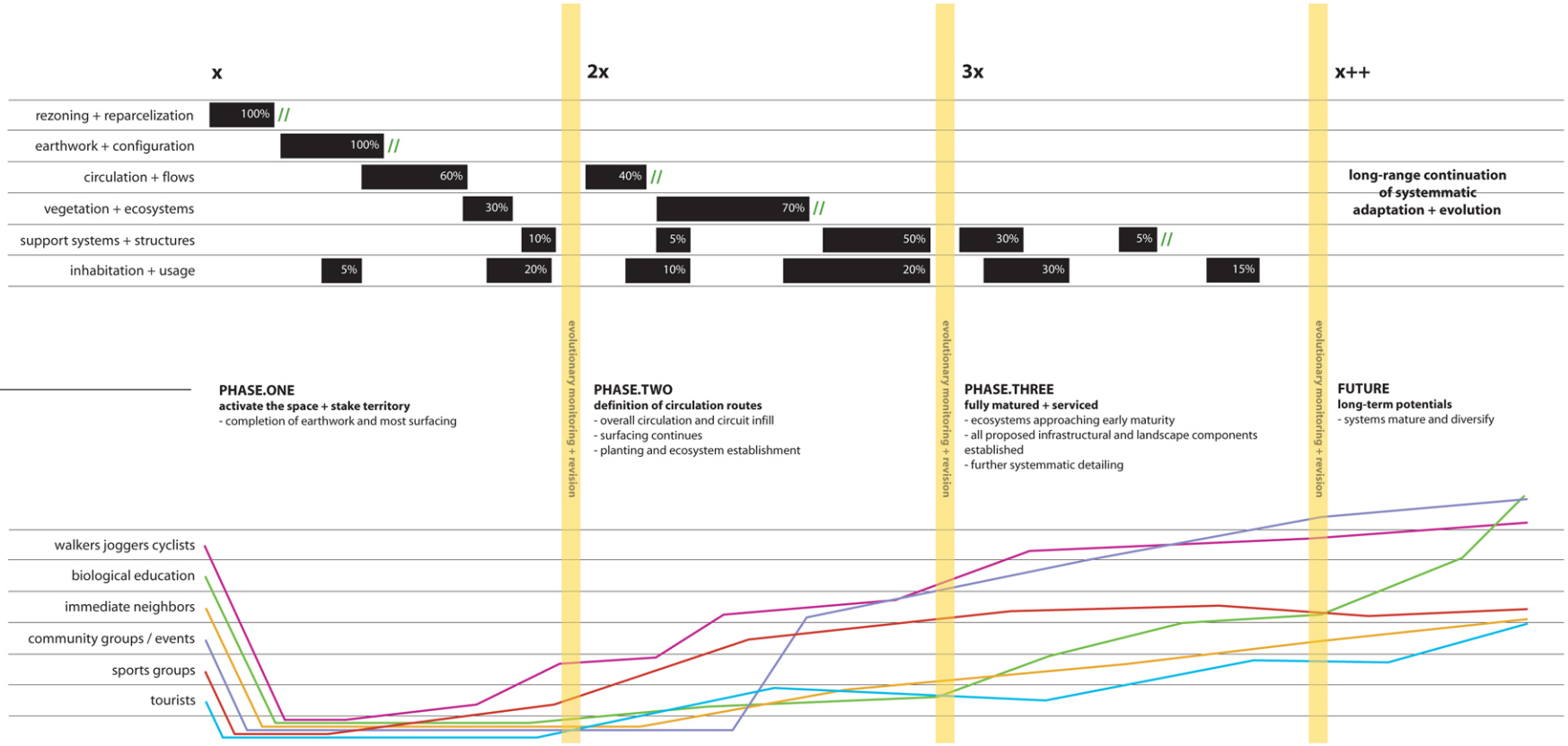




^^^ evolutionary greenbelt
^^ pattern analysis + spatial distribution
^ circulatory system

> biological + human ecosystems

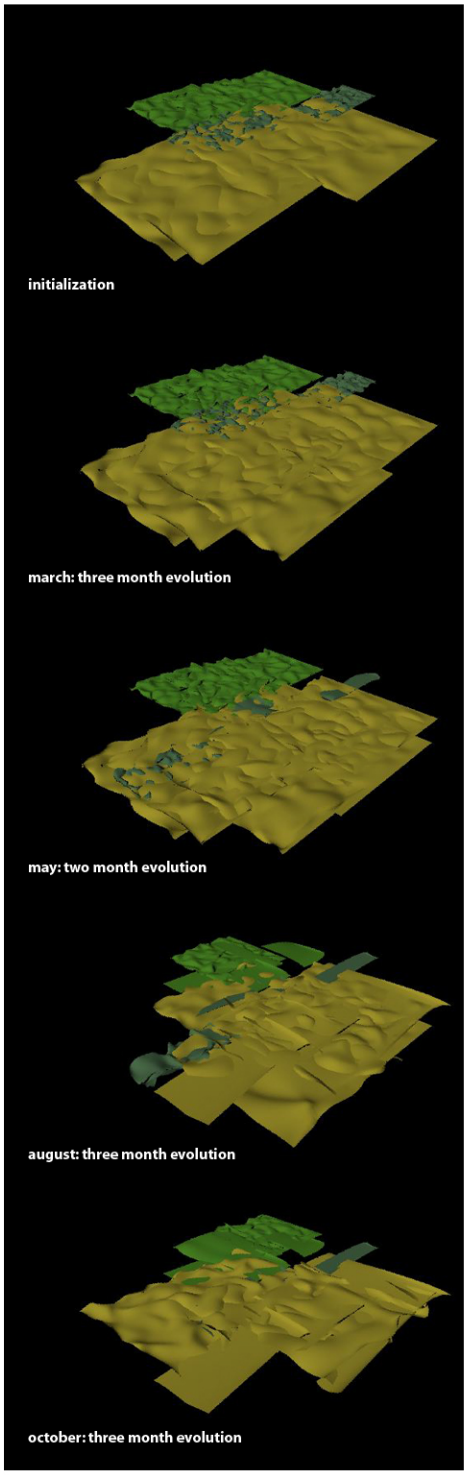




systems evolution

• • • the direction for the project's solution was to generate a new synthetic landscape through a rigorous understanding and integration of its intrinsic and extrinsic systems: ecological, historical, cultural, social. the generative engine for the park is a large-scale topographic reorganization able to incorporate and give consistency to the programmatic and ecological processes. thus, the primary ecological components of matter, energy and information suggest two separate, yet interdependent, ecosystems—the biological and the human—converging into an integrated ecology. these integrated, cybernetic, adaptive, model-making systems of inheritance or co-evolution create new niches while construing benefits for and equalize energy-matter flows between constituent agents.

in order to promote a co-dependent relationship between both human and biological ecosystems, the project must take on a highly temporal quality. the result is a new form of public-ecological landscape—an alternative paradigm of human creativity, biologically informed, guided more by time and process than by space and form. the human processes of ecological reflection, passive recreation, active sports, performance and cultural events, community development, economic enhancement, and neighborhood revitalization all occur alongside the micro and macroscopic processes of nature and landscape.




```
//
// main ecosystem routine
// defines new system and sets initial parameters
//

global proc createEcosystem(string $econame, int $econum, string $colorGroup, string $material, string $shaderGroup, int $boundLimits[], int
$width, int $lwRatio, int $maxHeight, int $speciesData[], int $cvs[], vector $fieldColor, int $tempOpt, int $tempMax, int $precipOpt, int
$maxAge)
{
    global int $expCount = 0;

    // check some data
    if (!$tempOpt) { float $tempOpt = 0; print("Set optimum growth temperature!"); }
    if (!$tempMax) { float $tempMax = 0; print("Set maximum growth temperature!"); }
    if (!$precipOpt) { float $precipOpt = 0; print("Set optimum growth precipitation!"); }

    // extract cvs
    $cvU = $cvs[0];
    $cvV = $cvs[1];

    // extract positioning boundaries
    $maxX = $boundLimits[0];
    $minX = $boundLimits[1];
    $maxZ = $boundLimits[2];
    $minZ = $boundLimits[3];

    float $xpos = `rand $minX $maxX`;
    float $zpos = `rand $minZ $maxZ`;

    // extract species data
    int $coverTypeAmt = $speciesData[0];
    int $maxCoverTypeAmt = $speciesData[1];
    int $occupied = $speciesData[2];
    int $hmax = $speciesData[3];

    print("color to use: "+$fieldColor+"\n");

    // richness properties
    float $richness = (($coverTypeAmt/$maxCoverTypeAmt)*100);
    print("richness: "+$richness+"\n");

    // diversity properties
    float $diversity = -1*(($occupied*(log($coverTypeAmt)))/log($coverTypeAmt));

    float $dominance = (($hmax + $occupied * log($occupied))/$hmax);
    print("diversity: "+$diversity+"... dominance: "+$dominance+"\n");

    //connectivity properties
    int $links = 5;
    int $nodes = $cvU;
    float $connectivity = ($links/(3*($nodes-2)));

    float $growthRate = abs($diversity/$dominance);
    print("GROWTH RATE FROM GENERATOR... "+$growthRate+"\n");

    // create the new field, set surface color based on species type
    // set animation expression for surface deformations
    string $planeName = $econame + $econum;

    nurbsPlane -w $width -lr $lwRatio -p $xpos 0 $zpos -ax 0 1 0 -u $cvU -v $cvV -n $planeName;
    sets -e -forceElement {$econame+"SG"} {$planeName};
    initialDeform($planeName);

    float $birthTime = `timerX`;
    print("\nBIRTH TIME... "+$birthTime+"\n\n");

    print("setting expression...\n");
    string $fieldExp = ("initiateGrowth(\""+$planeName+"\", "+$tempMax+", "+$tempOpt+", "+$precipOpt+", "+$growthRate+", "+$birthTime+",
"+$maxAge+");");
    print("\nSETTING EXPRESSION: "+$fieldExp+"\n\n");

    expression -s $fieldExp  -o $planeName -ae 1 -uc all -n ($planeName+"_exp");
    print("\n... preparing to call initiateGrowth proc...using object "+$planeName+"\n\n");

    initiateGrowth($planeName, $tempOpt, $tempMax, $precipOpt, $growthRate, $birthTime, $maxAge);
}

global proc initiateGrowth(string $objPlane, int $tempMax, int $tempOpt, int $precipOpt, float $growthRate, float $birthTime, int $maxAge) {

  print("DOING GROWTH PROC for object "+$objPlane+"\n");
  int $i;
  int $j;
  int $u;
  int $v;
  int $formU;
  int $formV;
  int $num;
  int $planeOffset = $num*2;

  float $precipTemp;
  float $tempResp;
  float $precipResp;
  global float $curTemp;
  global float $curPrecip;
  int $growthSeason = 0;
  if ($tempOpt >= 50) { $growthSeason = 1; }

  print("CURRENT TEMP WITHIN GROWTH: "+$curTemp+"... CURRENT PRECIP: "+$curPrecip+"\n\n");

  string $attr;
  string $selected[];
  float $x, $y, $z;

  float $fieldAge = `timerX -startTime $birthTime`;
  print("current field age: "+$fieldAge+"\n");

  select -r $objPlane;
  $selected = `ls -selection`;

  // species response to temperature
  // tempData is an array: tempCur, tempMaxRate, tempOpt
  if ($tempOpt == $curTemp) $tempOpt = $curTemp+1;
  if ($tempMax == 0) $tempMax = 100;
  print("tempOpt: "+$tempOpt+"... tempMax: "+$tempMax+"\n");
  $tempResp = abs(1/(.15*($tempOpt - $curTemp)))-($curTemp/3 * $tempMax)-(0.01 * ($curTemp-$tempOpt));
  print("tempResp: "+$tempResp+"\n");

  // species response to precipitaton
  // precipData is an array: precipCur, precipMaxRate, precipOpt
  $precipBase = `pow 2 15`;
  $precipTemp = `pow (($curPrecip/$curTemp)/10) (10/9)`;
  $precipResp = 115 * $precipTemp * $precipBase;
  print("precipTemp: "+$precipResp+"\n\n");

  $growthRate = ($tempResp/$precipResp);
  print("GROWTH RATE: "+$growthRate+"\n\n");

  if (size($selected) != 1) {
   print ("select 1 nurb plane only!\n");
  } else {
   $model = $selected[0];
   $formU = `getAttr ($model + ".formU")`;
   $formV = `getAttr ($model + ".formV")`;
   $attr = $model + ".spansU";
   $u = `getAttr $attr`;
   $attr = $model + ".spansV";
   $v = `getAttr $attr`;

        if ($fieldAge > $maxAge)
        {
            // kill vegetal patch by removing cvs
            int $uTot = $u + $formU;
            int $vTot = $v + $formV;
            int $randU = `rand 0 $uTot`;
            int $randV = `rand 0 $vTot`;
            select -r ($model+".cv["+$randU+"]["+$randV+"]");
            delete;
            select -cl;

        } else {
    for ($i=0; $i <= $u+$formU; $i++) {
        for ($j=0; $j <= $v+$formV; $j++) {
        // set movement direction based on growth season
        $randX = 0;
        if ($growthSeason == 1) {
            $randX = `rand -.5 1.5`;
        } else {
            $randX = `rand -1.5 .5`;
        }
                    $randY = `rand -1 1`;
                    $randZ = `rand -1 1`;
                    $x = $randX * $growthRate;
                    $z = $randZ * $growthRate;
                    $y = $randY * $growthRate;
        $attr = $model + ".cv["+$i+"]["+$j+"]";
        move -r $x $y $z $attr;
    }
   }
  }
  select -cl;

// plant species routines
global proc winterMajorField ()
{
    //iterate the number of childs within species
    global int $winterMajorNum;
    int $econum = $winterMajorNum;
    print("species patch num: "+$econum+"\n");

    // field growth boundaries
    int $maxX = -1;
    int $maxZ = 5;
    int $minX = -10;
    int $minZ = -5;
    int $boundLimits[] = {$maxX, $minX, $maxZ, $minZ};

    // species characteristics
    int $maxWidth = 8;
    int $lwRatio = 1;
    int $maxHeight = 5;
    int $tempOpt = 50;
    int $tempMax = 70;
    int $precipOpt = 3;
    int $maxAge = 300;
    int $occupied = 10;
    int $hmax = 2;
    int $coverTypeAmt = 2;
    int $maxCoverTypeAmt = 5;
    int $speciesData[] = {$coverTypeAmt, $maxCoverTypeAmt, $occupied, $hmax};

    // model depiction
    int $cvUtot = 10;
    int $cvVtot = $lwRatio * $cvUtot;
    int $cvs[] = {$cvUtot, $cvVtot};

    float $colorR = 100;
    $colorR = ($colorR/255);
    float $colorG = 100;
    $colorG = ($colorG/255);
    float $colorB = 100;
    $colorB = ($colorB/255);
    vector $fieldColor = `rgb_to_hsv(<<$colorR, $colorG, $colorB>>)`;
    $colorR = ($fieldColor.x);
    $colorG = ($fieldColor.y);
    $colorB = ($fieldColor.z);
    string $colorGroup = "winterMajor";
    print("field color from species: "+$fieldColor+"\n");

    string $material;
    string $SG;
    if ($winterMajorNum == 0)
    {
        // create shading group for this system
        print("creating shader group... "+$colorGroup+"SG\n");
        $material = `shadingNode -asShader lambert -name ($colorGroup)`;
        $SG = `sets -renderable true -noSurfaceShader true -empty -name ($material+"SG")`;
        defaultNavigation -connectToExisting -source $material -destination $SG;
        string $colorGroupAttr = $colorGroup+".color";
        setAttr $colorGroupAttr -type double3 $colorR $colorG $colorB;
    }

    // generate ecosystem field
    $econame = "winterMajor";
    $planeName = $econame + $econum;
    $winterMajorNum++;
    $winterMajorNum++;
    print("generating ecological plane... "+$planeName);
    createEcosystem($econame, $econum, $colorGroup, $material, $SG, $boundLimits, $maxWidth, $lwRatio, $maxHeight, $speciesData, $cvs,
$fieldColor, $tempOpt, $tempMax, $precipOpt, $maxAge);

}


proc initializeModel()
{
    // set expression to update environment variables per day
    expression -s "updateEnviro()"  -o "" -ae 1 -uc all -n "enviroUpdater";

    int $i;
    int $totalWinterMajorFields = 4;
    int $totalSummerMajorFields = 6;

    for ($i=0; $i < $totalWinterMajorFields; $i++)
    {
        winterMajorField();
    }
    for ($i=0; $i < $totalSummerMajorFields; $i++)
    {
        summerMajorField();
    }

    global float $curTimeSec;

    // setup birth of new patches
    expression -s "if (($curTimeSec % 50) == 0) winterMajorField();" -ae 1 -uc all -n "newWinterMajor";
    expression -s "if (($curTimeSec % 30) == 0) summerMajorField();" -ae 1 -uc all -n "newSummerMajor";
}

proc simulate()
{
    if (`play -q -state` != 1) { play; }
}

global proc updateEnviro()
{
    global float $curTimeSec;
    global int $curMonth;
    global int $curModelDay;
    global float $curTemp;
    global float $curPrecip;
    global float $tempAvgs[];
    global float $precipAvgs[];

    $curTimeSec = `currentTime -query`;

    // current day is the current seconds whole number
    $curModelDay = $curTimeSec;

    // get current month
    $curMonth = ((($curModelDay)/30);

    // get current precip and temp from array values
    $curTemp = $tempAvgs[$curMonth];
    $curPrecip = $precipAvgs[$curMonth];
    //$curPrecip = $curPrecip/15;

    // make random adjustments to temp and precip values
    float $tempDataRand = `rand -5 5`;
    float $precipDataRand = `rand -.75 .75`;
    $curTemp = $curTemp + $tempDataRand;
    $curPrecip = $curPrecip + $precipDataRand;

    print("\nDATE: "+$curMonth+"/"+$curModelDay+"\n");
    print("CURRENT TEMP: "+$curTemp+"... CURRENT PRECIP: "+$curPrecip+"\n\n");
}

// set animation extents
// each sec is 1 day
playbackOptions -min 1 -max 360;
global float $curTimeSec;
$curTimeSec = `currentTime -q`;

// setup initial values
// time of year values
global int $fieldNum = 0;
global int $dayOfYear = 1;
global int $curMonth = 0;
global float $precipAvgs[] = {4.5, 3.2, 4.6, 4.4, 3.7, 3.5, 3.2, 4.0, 4.0, 3.9, 4.5, 4.5};
global float $tempAvgs[] = {27.5, 34.2, 43.3, 47.3, 57.2, 67.3, 70.1, 70.3, 63.5, 53.9, 43.8, 29.2};

// precip and temp data
int $i;
float $precipYrTot = 0;
float $tempYrTot = 0;
for ($i=0; $i < size($precipAvgs); $i++) {
    $precipYrTot += $precipAvgs[$i];
}
for ($i=0; $i < size($tempAvgs); $i++) {
    $tempYrTot += $tempAvgs[$i];
}
global float $precipYrAvg;
global float $tempYrAvg;
$precipYrAvg = $precipYrTot/size($precipAvgs);
$tempYrAvg = $tempYrTot/size($tempAvgs);

global float $curTemp;
global float $curPrecip;
$curTemp = $tempAvgs[0];
$curPrecip = $precipAvgs[0];

// set start count for different species
```

create a new ecological field

define ecological growth potential

begin simulation of ecological growth

define how ecological species respond to local precipitation and temperature

perform ecological field growth and evolution

vegetal species growth characteristics

environmental conditions: local rainfall and temperature averages

set current day, month and year; adjust current precipitation and temperature based on local averages for current month

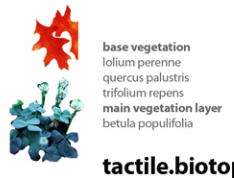
calculate yearly climate averages

base vegetation
celastrus scandens
hierochloe odorata
pascopyrum smithil
rudbeckia hirta
main vegetation layer
liriodendron tulipifera

wetland.biotopes

base vegetation
cephalanthus occidentalis
cornus florida
main vegetation layer
chamaecyparis thyoides

support.biotopes



base vegetation
lolium perenne
quercus palustris
trifolium repens
main vegetation layer
betula populifolia

tactile.biotopes

+ system.axiom

< intermediate.support.system

< sensitive.biological.ecologies

< dynamic.human.ecologies

$$\frac{dN}{dt} = r * N * \frac{(K - N)}{N}$$

logistic density-dependent growth model

population growth is dependent on the density of individuals such that the population grows rapidly at low density and grows slowly or even declines at high density

$$\frac{dV}{dt} = k_{vg}(1-V) - k_{vd} * V(R_f * \sigma - \sigma_c)$$

combined vegetal growth + erosion

rate of vegetation growth on a bare surface as a function of solar radiation, soil moisture, nutrients, ground cover and erosion

• • • nature is no longer an image we look at, but the field we are part of—an active landscape where life at the multiple levels is continuously manufacturing new environments as it produces and evolves. after setting the initial condition, the axiom, an entangled colony of emergent organisms and communities will define the different ecosystems over time as different meadows, plantings, habitats and programs work with distinct solar aspect, slope gradients, soil-water gradients and adjacent contexts. over time as the human and biological ecosystems, once disjointed, interact with each other, their boundary definitions will dissolve into each other.

the solution investigates how architecture can structure change rather than simply accommodate it through the implementation of unprogrammed event surfaces that promote rather than prescribe specific uses. bracketing a spectrum of limit conditions while organizing particular spaces and uses over time without rigidly framing either promotes an open-ended and flexible condition. the local nature of interventions, executed at moments in time and space, creates a flexible, provisional and/or an indeterminate system. each localized intervention impacts the larger design without the ability to claim control in its entirety—acknowledging the system is itself constantly changing and in flux.

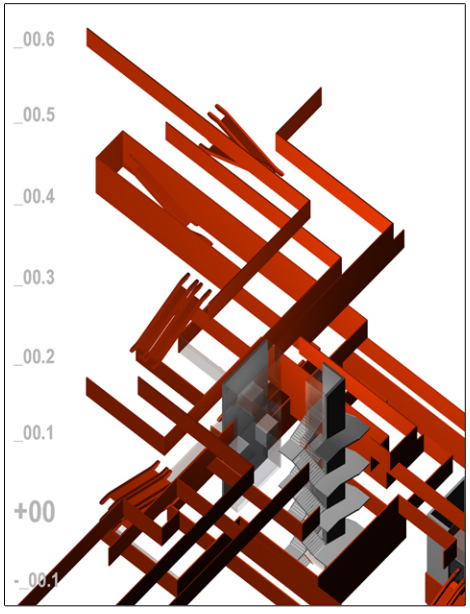
mathematical representation of plant growth + mutations

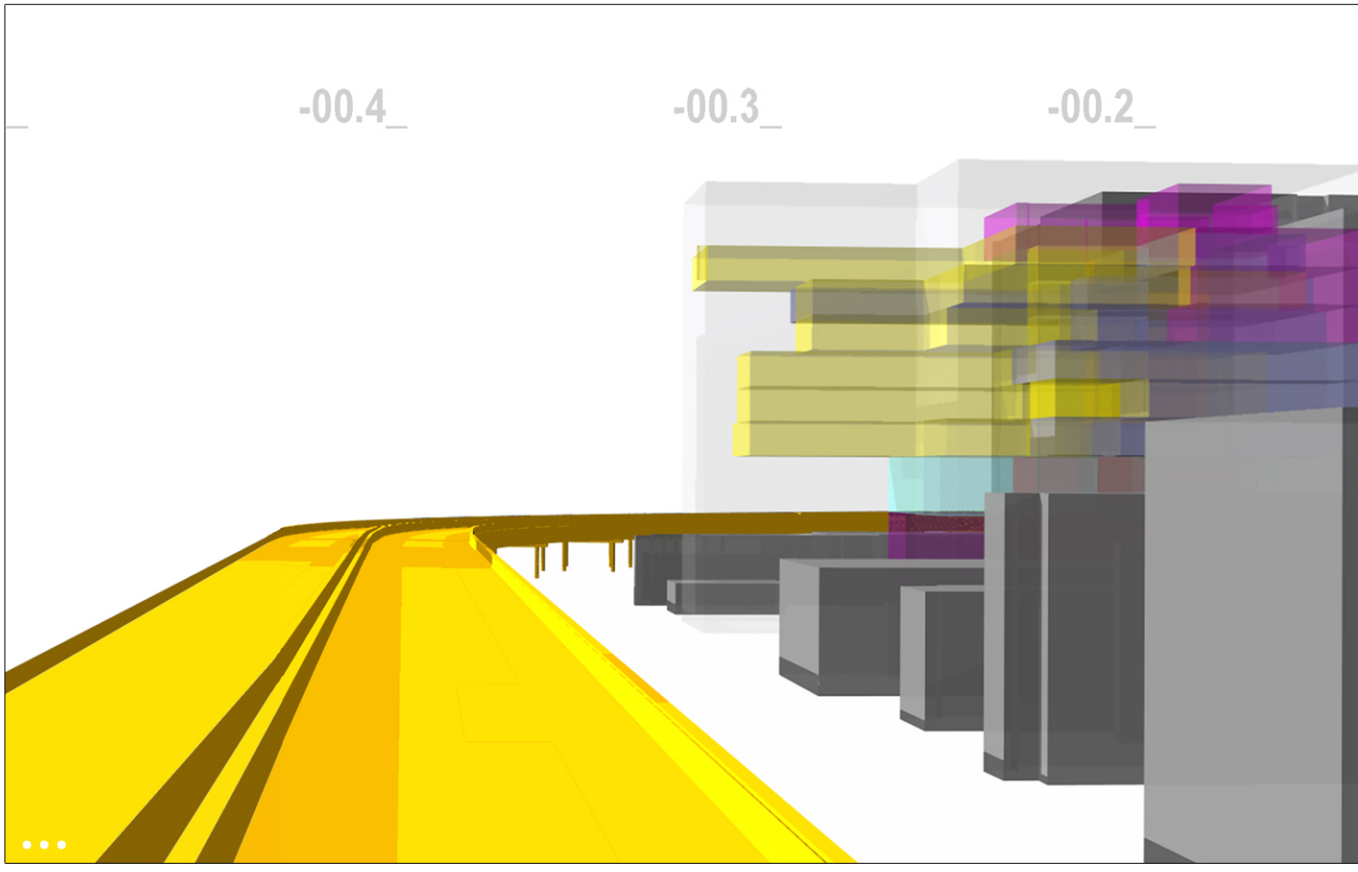
• • •

SPR2K3.URBANHYBRIDITY

studies involved the analysis of architecture and hybridity in a dense urban setting. it was defined that the development of the city involves the development of hybrid areas, areas where once border zones formed between two or more less distinct spatial systems, each with its own formal and functional logic, and where the confrontation of both systems has led to a new quality. sometimes these border zones can be problematic, but are more often the particular areas where the greatest urban vitality develops and where a new system, also with a new logic and dynamism, evolves.

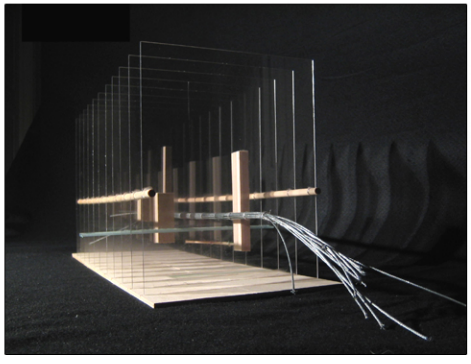
the project was taken from a strip that occupies the transition zone between a dense urban field and a more suburban, open field within the central core of the city of houston. once an understanding of the strip and its relationship to the surrounding fields was developed, the project progressed into the application of a specific building typology as a tactical intervention into the field. the chosen ensemble of programs within the project was to lend impetus to the urban transformation of a transition zone while at the same time set the tone for the way in which other buildings in the area can in time be replaced or altered.

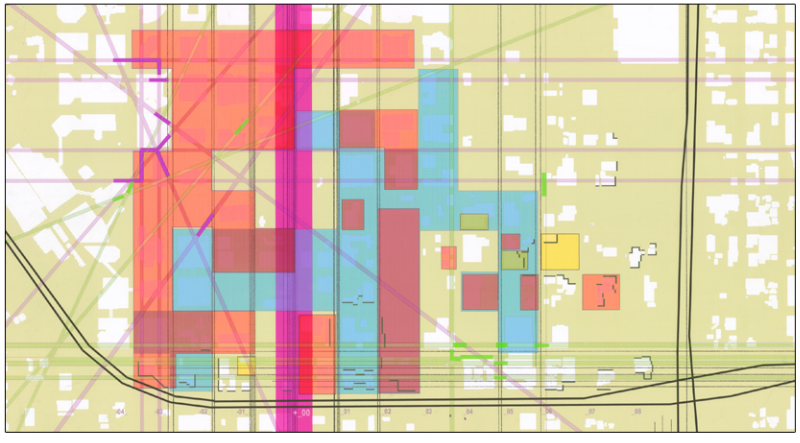


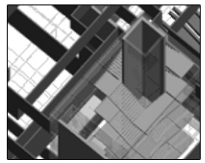
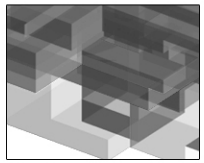
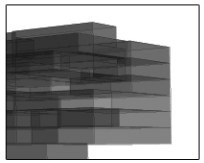
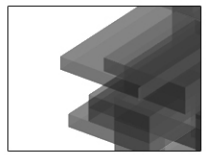
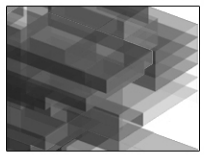
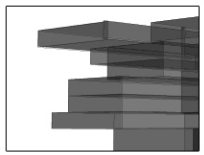


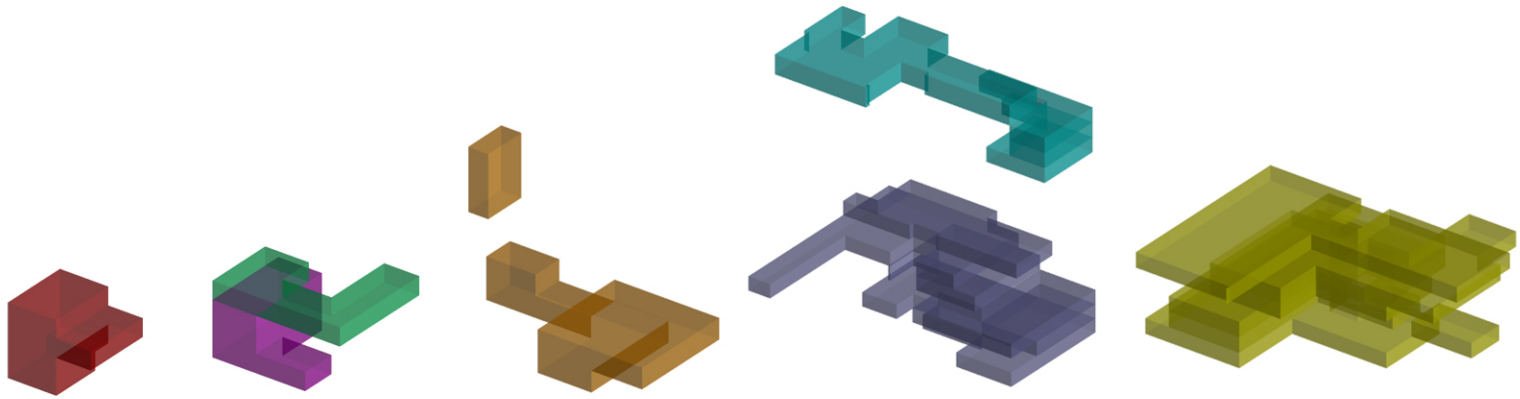
^ infrastructural studies

> urban dissection studies







our field hesitates between city center and suburb. as a result of this uncontrolled management and awkward coordination, this area displays great variety, diversity and mixture of buildings and programs.

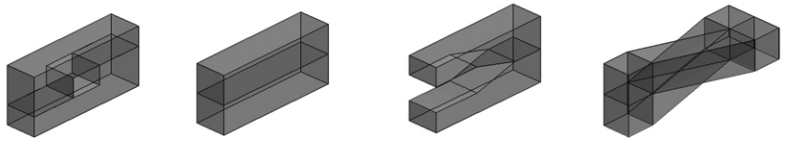
what is observed if one takes the interlocking hybridity of program in the horizontal of the field and transforms it into the vertical dimension? no longer is the building static and non-responsive, but rather an increasingly interactive spatial condition where interlocking spaces and forms increases interaction between programs and users. organizational systems, light, structure, access and movement are now the governing ideas generating the aggregations. the city is interactive--thus the intervention must also be.

in order for hyper-attached systems and program interaction to competently engage the user, boundaries must be challenged. not only are the boundaries between systems important, but also the boundaries that exist within each system, whether vertical or horizontal. the principle of sharing services and space increases social interaction. social connection is related to boundary and spatial negotiation. objects and space penetrate and interlock with one another to challenge the floor.ceiling relationship.

the story is brought to an end.

^ hyper-attached systems
assiduous.system :: events + theater
assiduous.system :: art gallery + studios
assiduous.system :: cafe + restaurant + shops
assiduous + social.system :: office + lofts
social.system :: sro housing

boundary negotiations
semi-direct
direct
sectional
infrastructural.deformations



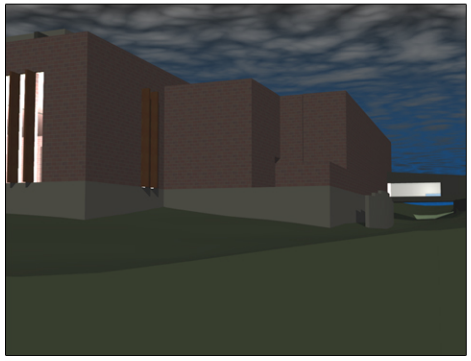
_interurban.Connections

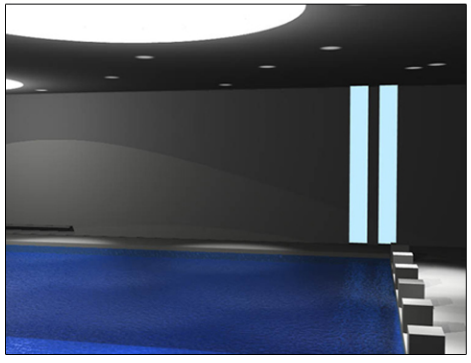
_extended.Interaction

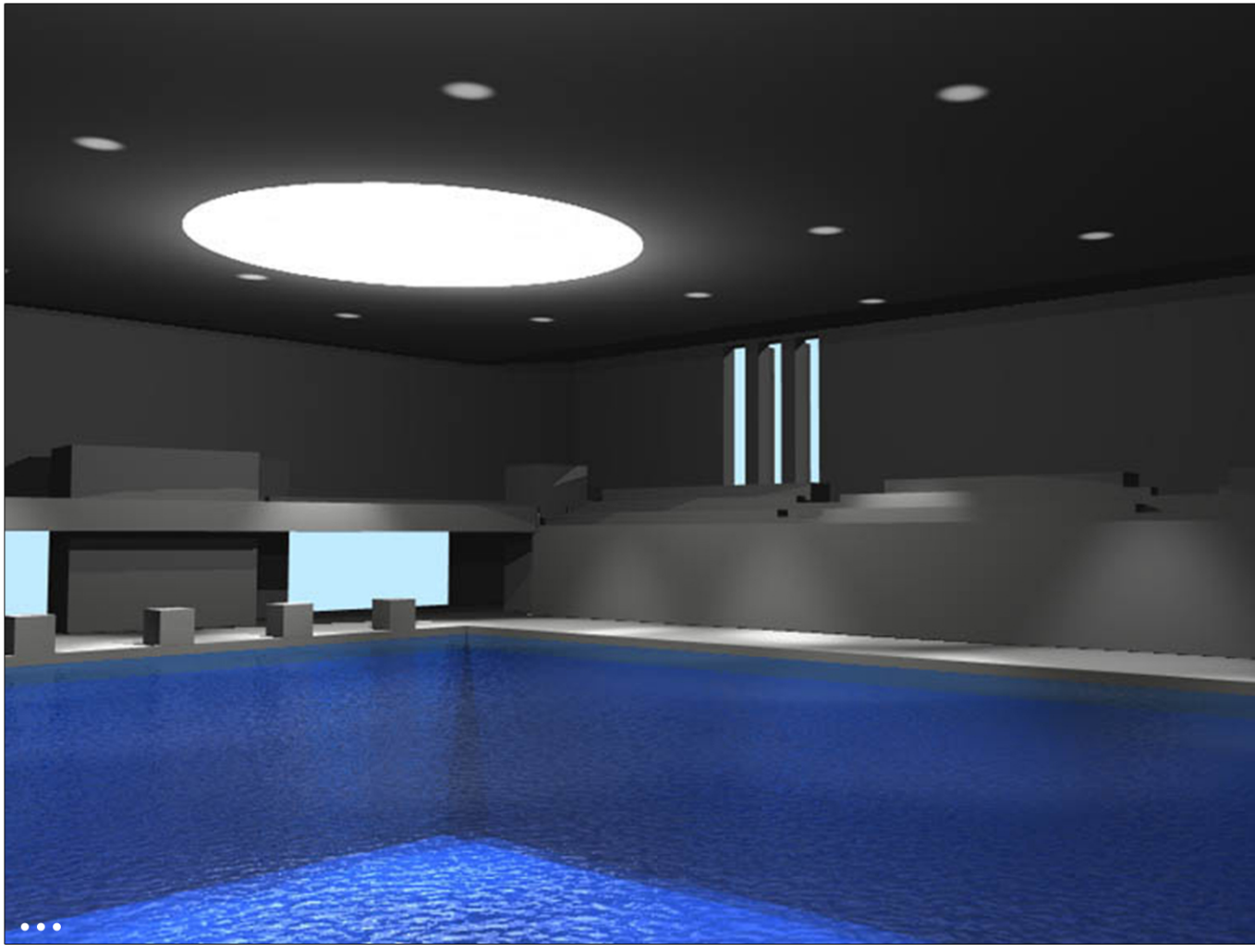
_experiential.Realities

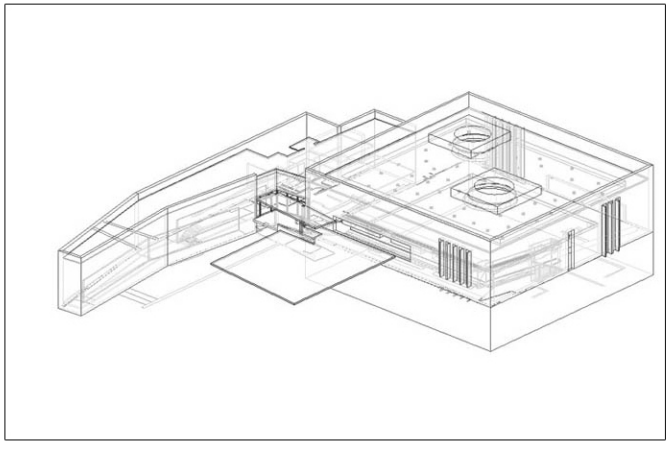
_reflective.Continuity

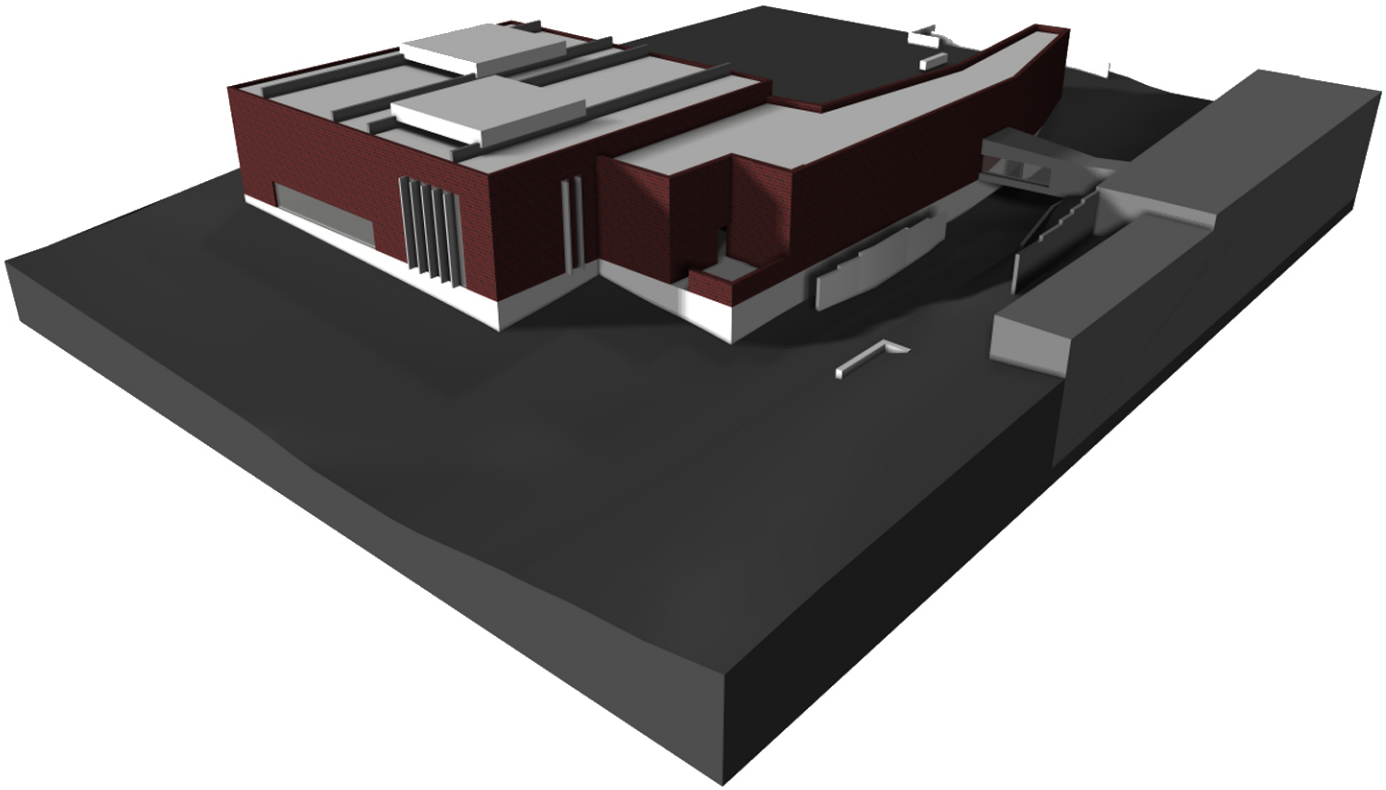
a new environmental condition is created, a chaotic system confined within a thin transparent skin. it is its own city. similar to social structures in nature, a balance remains among the interaction of various programmatically specific species and forms. smaller multi-tier environments are created as a more controlled sub-climate of houston to further the complexity of interaction. in this intermodal entanglement, multiple systems of movement and inhabitation intersect no longer in the shape of harmonious and coherent bodies but in concurrent environments in which structures, forms, networks and environment cohabit with one another.











• • • the primary visual communications project throughout the course of the semester was a case study involving the tod williams and billie tsien cranbrook natatorium. with three weeks of intense research and analysis of the project, our team of two set forth on capturing the essence of the natatorium through the use of three-dimensional computer modeling. during the semester, new modeling techniques and visualizations were introduced to the studio using the form.z computer modeling platform, which were then to be implemented in our case study analysis. the primary concept behind our approach was to capture the true emotion of the interior pool space, where the ceiling becomes a constellation of lights. the interior views captivate the intense contrast between the natural elements of water and natural lighting with the remaining forms and geometries, relating the space back to the site. architecture and landscape are rigorously parallel.

SPR2K2.ANALOGOUSCITY

concurrent to my studio work was my involvement in 'the architecture of the city' -- an architectural theory course which investigated theoretical writings and related artifacts of the contemporary european and american city. contained within the investigations was a broad overview of theoretical discourse from the twentieth century, which exposed critical writings of the architecture of the city as well as the aspects of urban morphology and the resultant spatial and social structure of the city.

the primary project for the course followed the theoretical readings during the semester and involved the initial design and further mutations of a city. the city was based on very distinct and different ideas of urban design and what qualifies a good, well-designed city. through the mechanism of an analogous city, the aspects of formal structure as they were conceived through these various urban ideals were applied. when brought into conflict with each other, these urban ideals are intended to develop urban transformations, which were investigated through the development of a fictitious city through six distinct stages of urban theory.

one.camillositte

much of camillo sitte's theories on the city revolved around the radius, where focus is placed on city centers rather than the city as a whole and where life in the city draws from the public square. the city should strive for carved public space, avoiding the withdrawal of man into private space, to generate very particular mind/eye relationships. the result--very complex spatial layers and relationships throughout the entire city. buildings and streets are planned and constructed to create a continuous facade completely around the city where the space along a street should be thought of as being cut out from the fabric of the city rather than added from the ground. therefore, each movement through the city appears as a progression with the idea of a goal in mind while moving along a path. the city inherently becomes organic in nature because travel along a path should be visually stimulating and curvilinear rather than direct and straight.

two.ciam

there are four basic functions of the city--dwelling, work, amusement, circulation--and an underlying philosophy that the idea of the 'open city' (light, air and sound) is important. green space throughout the city is to be maximized while corridor streets are to be eliminated to allow the city to breathe. housing is to be constructed along transportation routes and areas of density are to be demolished to introduce green space back into the city centers. furthermore, larger structures are to be spaces farther apart in order to maximize solar influence. ciam believed that the dwelling is the central element of urban organization and that all urban arrangements should be based on human scale. in general, urbanism should arrange and combine material elements of sky, trees, housing, work places, collective places, and traffic according to the rhythm of everyday activity.

three.robertmoses

infrastructure throughout the entire city has become increasingly important and focus is placed on the movement of goods via railway lines, highways and how movement occurs from ship to rail to road. huge infrastructural projects and thoroughfares take place, displacing a large amount of the population in order to reduce large amounts of density. the ideas of universalizing the Garden City and the universal system of auto routes is implemented along with the introduction of large public park projects.

four.collinrowe

the city is a collage--a conglomeration of fragments assembled together by the interlocking of space. each district, or fragment, of the city is a found object, an artifact, that has a strong correlation with its surrounding interconnected districts. each district is distinct and diverse, allowing the user to fully become aware as to when you are in a district and when you are not. it is the joint between districts, the space that belongs to neither fragment, where the most significant urban spaces emerge as it collects energy from all surrounding urban fields in order to create space. each district within the city contains clearly defined edges and personalities where the rupture between is merely a hybridization of the multiple characteristics that surround it.

five.jamescorner

urban form as mapping, measure and temporal indeterminacy. the beginning of urbanization occurs when man inscribes territories onto the land through geometries, patterns and quadrants generating a set of rules superimposed upon each other to set up zones as to which or how a town could and should be constructed. therefore, a map is a way of accessing a strategy, leading back to the way architecture and landscape is to be read while allowing architecture to be scaled back to the landscape. it is a series of lines, points and surfaces superimposed upon each other of a landscape--a description of the world through geometry. a map is an intermediary description of the world between the possible future, reality, and the past. there is an increase in focus and thought placed on intermodal transportation, combining various transportation types into one structure.

• • • **six.remkoolhaas**

a culture of congestion. layers are generated throughout the city vertically and horizontally, a vitality of the city resulting from diversity of programs and functions stratified across the urban field. dense cities are a result of a topographic response to the natural limits of expansion, which ultimately leads to vertical thought and way of planning. voids are saturated with a hybrid of programs, interlocking of space and multi-use systems.

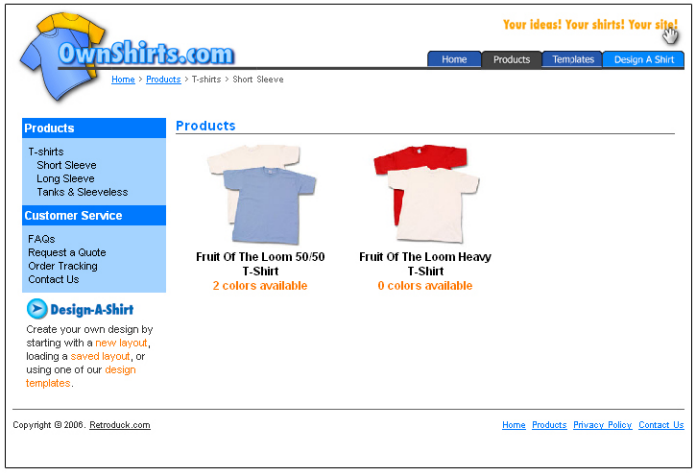
.URBAN10

upon further analysis and studies of the dynamic urban environment and integration and interaction with modern digital technology, inspiration exploded, and a new approach to personal design and architectural theory occurred. a thorough understanding of the role of cities in today's society and their important role in the future began to mutate my individual vision of architecture—one where ideas of architecture and design shifted to urban design and the city as a living, evolving life form.

a new alias was developed to encompass this progressive idea and digital technology's involvement in our modern society and to contain my personal theories of urban and electronic culture. that alias is urban10. starting urban10 as a freelance design and development company has allowed me to explore realms outside of architecture while at the same time combining philosophies and theories of each together.

inspiration for urban10 grows from the increasingly important role that cities and superurbia play in our global universe. as a response, digital technology development and implementation leads civilization into the future. therefore, the existence of this digital existence we are embarking on within our once familiar urban environments is forming a strong tension. are we truly able to preserve the balance between these two paradoxical realms: life reflecting the laws of nature through dna code and digitalization emerging from the laws of binary numbers (complex patters of ones and zeros) through binary code enforce. digital technology is its own life form, obeying its own laws beyond life. ubiquitous computing promises to embed our physical environments with this new set of laws driving computational realizations. a lag endures between its exponentially enigmatic evolution and our unconditional mastery of it.

the design company of urban10 strives to traverse this discontinuity of existence—stepping outside of traditional notions of what design and architecture are. our world is being inundated by a digital convergence that, in conjunction with globalization, threatens to create placeless places. if designers fail to accept and embrace digital technology in an innovative and progressive method, we risk losing sense of place and culture for a confused conglomerate hyper-culture. urban10 designs work to combine information technology and digitalization into our more familiar environments, where physical, mental, and spiritual experiences constitute living existence.

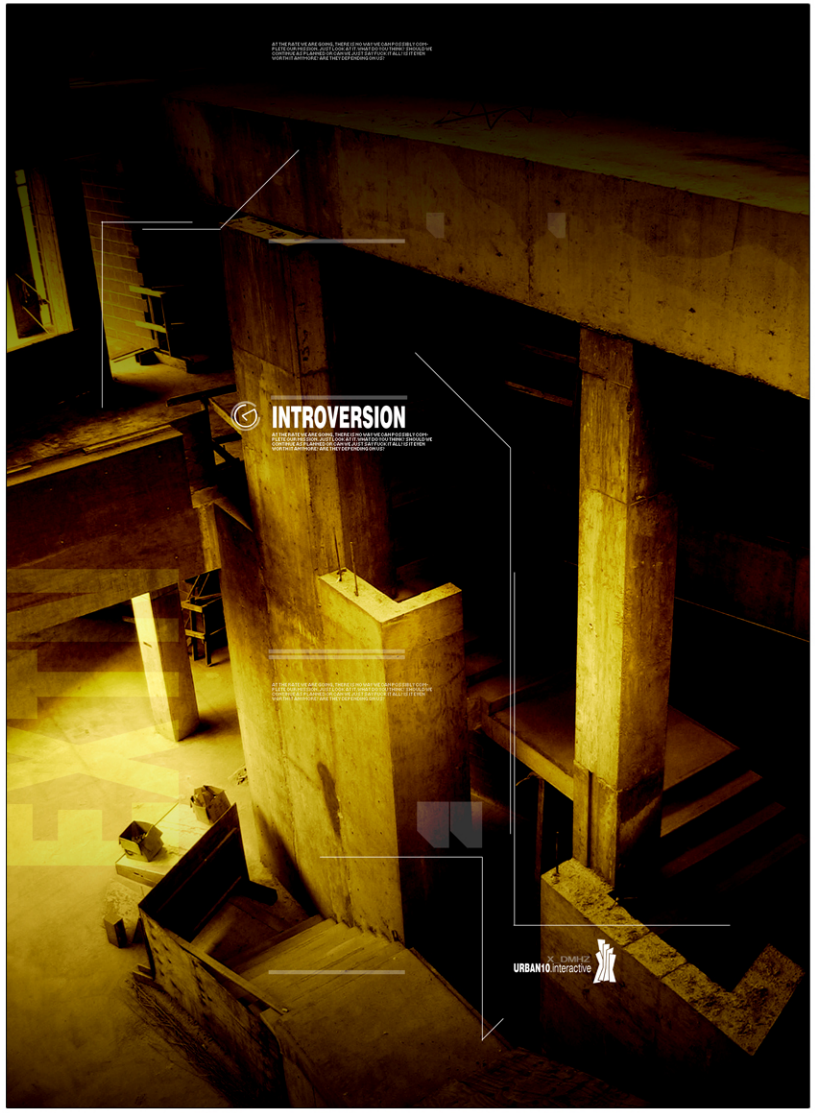


• • • **web.ourshirts.com**
custom tshirt design rich internet application
flash, actionscripting, php, mysql

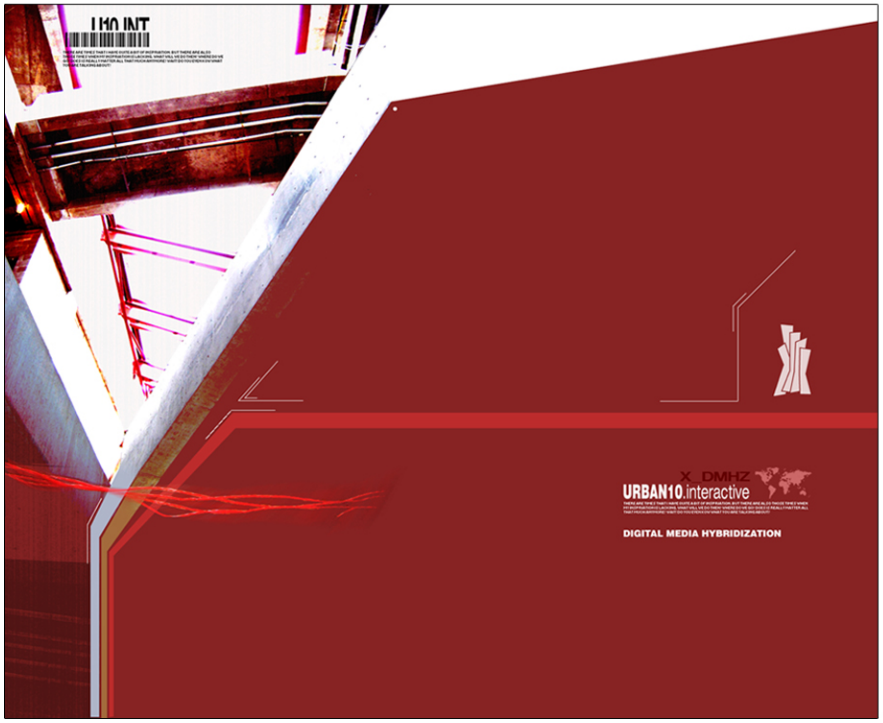
>> **digitalization.deconstruct**
photoshop

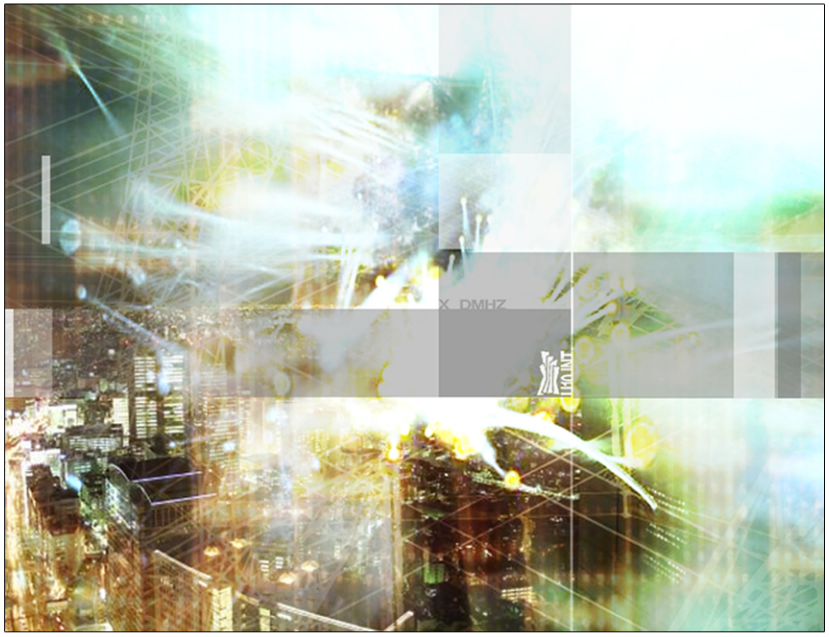
>> **digitalization.fluiddynamics**
photoshop

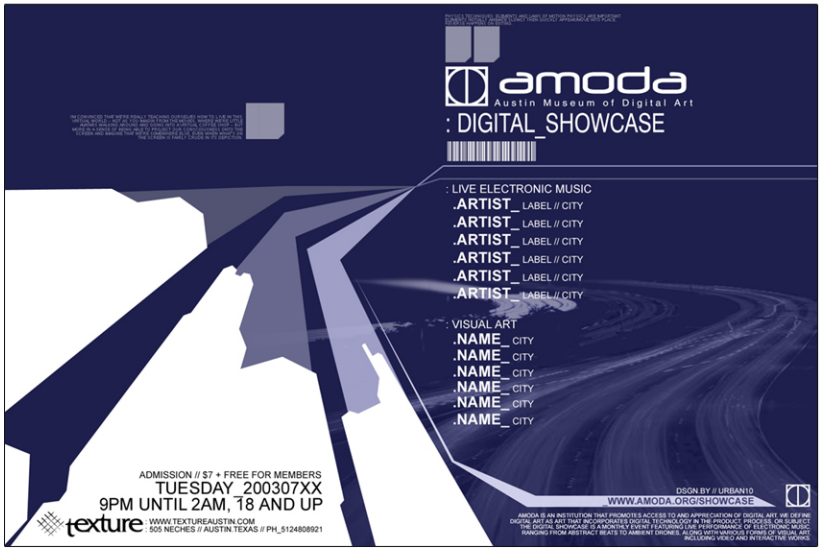
> **digitalization.introversion**
photoshop


INTROVERSION
X_DMHZ
URBAN10.interactive


fluid.dynamics
WARNING: UNSTABLE SYSTEM
0.275


X_DMHZ
URBAN10.interactive
DIGITAL MEDIA HYBRIDIZATION





••• **digitalization.precocious**
photoshop

>> **digitalization.consciousness**
photoshop

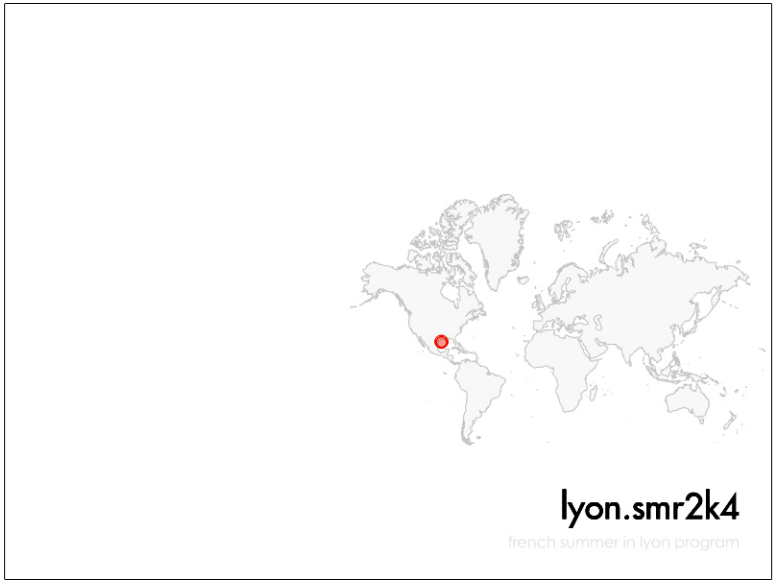
> **digitalization.logarithmicundulations**
photoshop

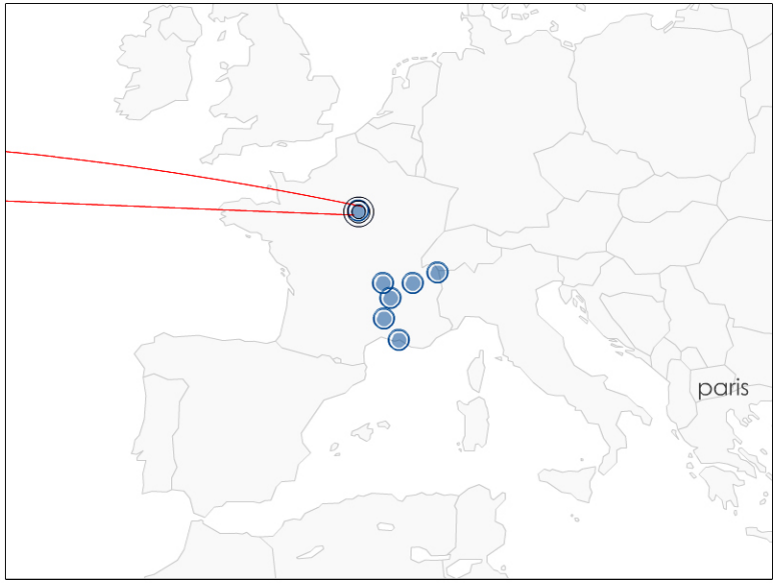
< **flyer.amodadigitalshowcase**
illustrator + photoshop
austin museum of digital art :: music event

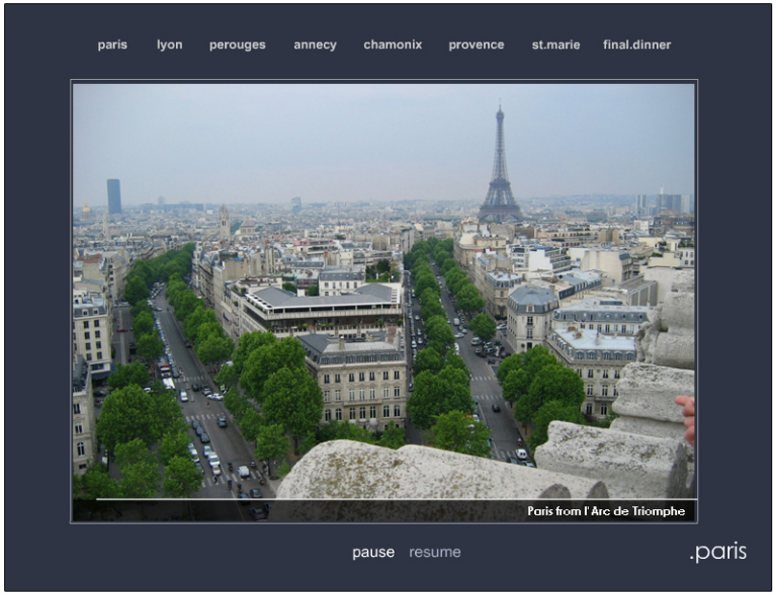
^ **digitalization.u10evolutionsofurbanhomeostasis**
3d studio max + photoshop

.URBAN10INTERACTIVE

graphic design + web development + sub.conscious perspicuity



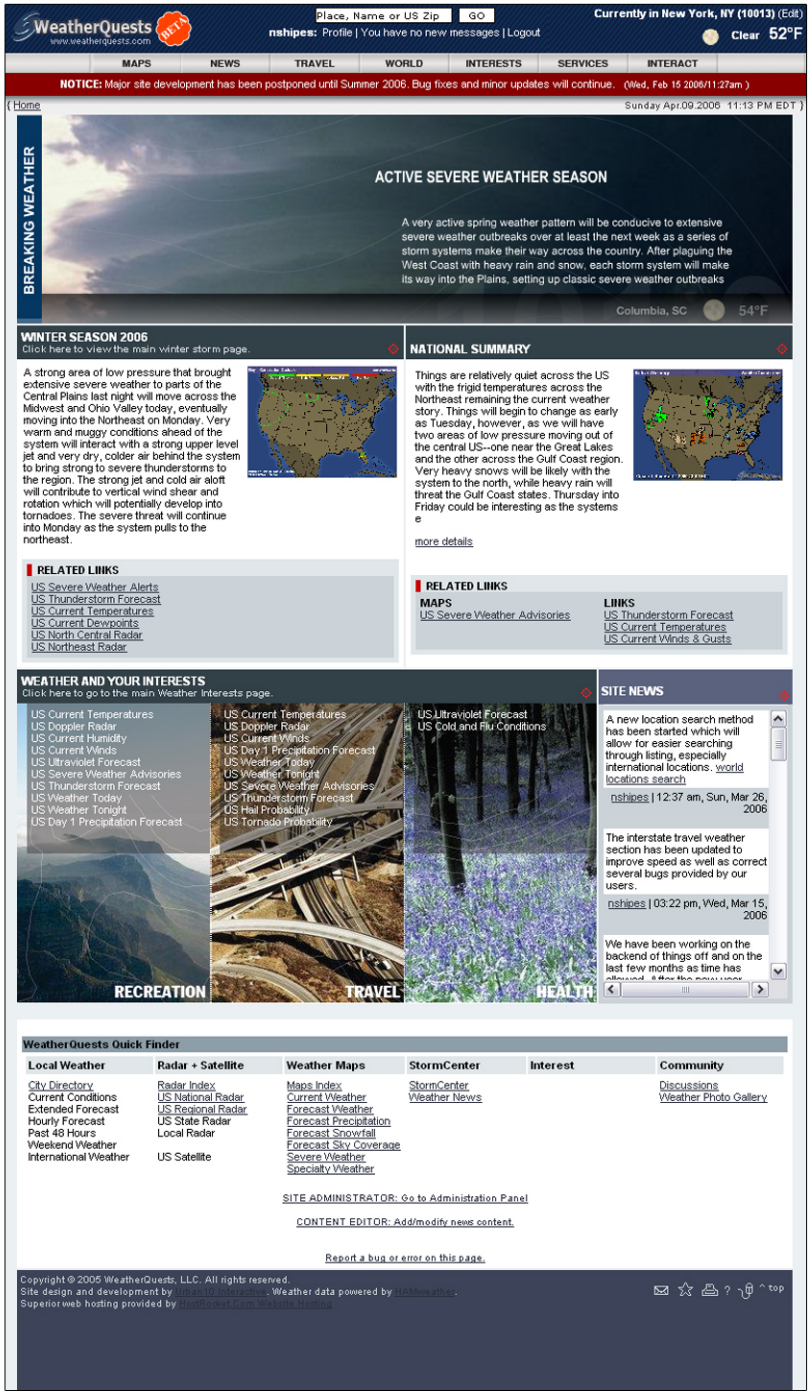


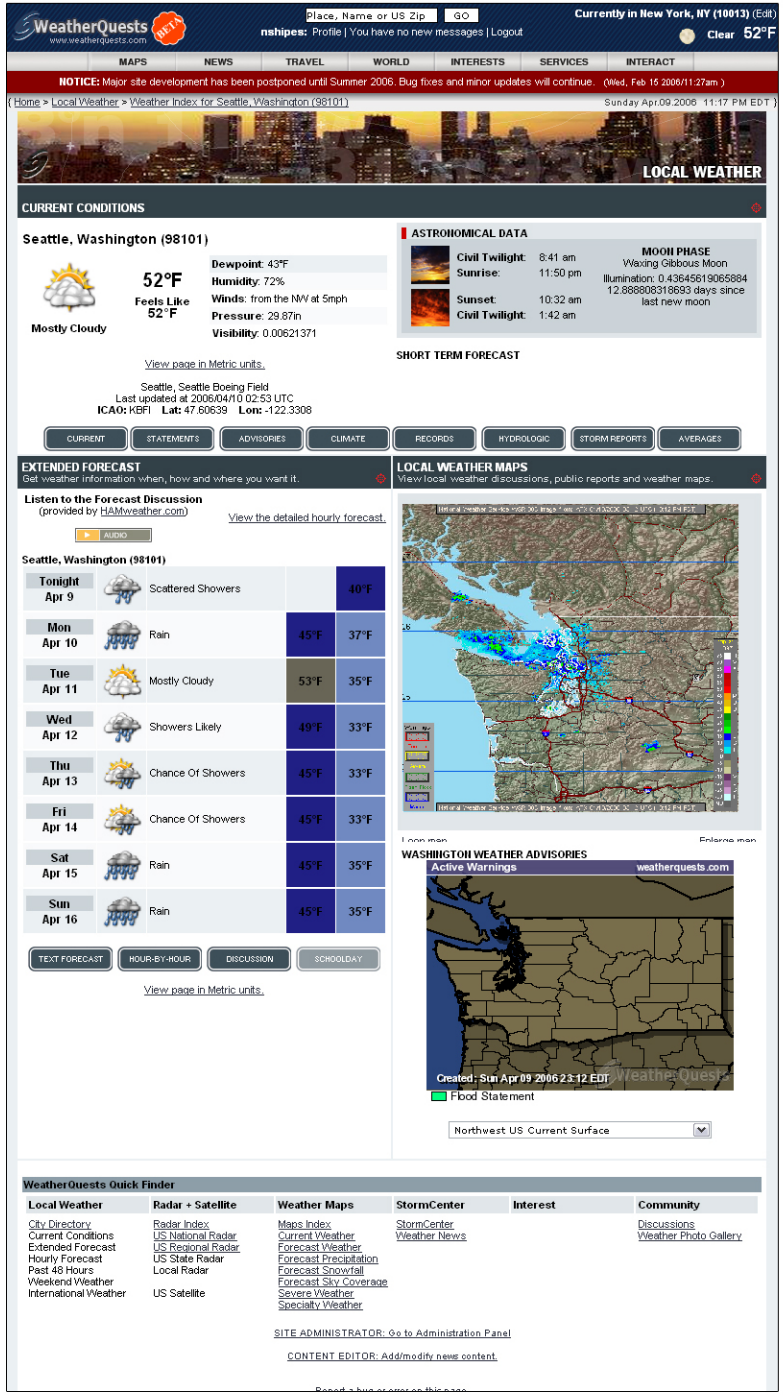


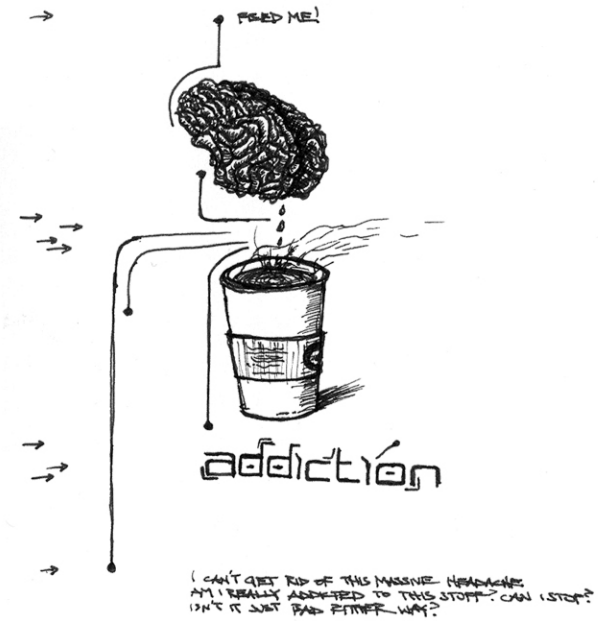
• • • **web.lyonprogramslideshow**
client: french department, university of texas
2004 summer in lyon study abrod program
photography, flash, actionscript, xml, php

> **web.weatherquests.com**
client: personal
php, flash, actionscript, perl, xml, css, mysql database

weatherquests has evolved into a complex online weather application and continues to expand. the site provides automatically updating, dynamic weather content for any united states and international location as well as a customizable user account system and backend content management system, both which utilize the latest in web technologies.







• • • **web.superurbia.com**
client: personal
php, css, mysql database

U10.interactive, recently renamed superurbia.com, was developed as a collaborative project with the full intention of celebrating technology and going beyond the limits of everyday reality. it is through technology that we can envision alternative digital spheres and peer into the future, leaving behind the limits that reality places on our minds. the world is becoming interconnected at an increasing rate and soon the world will exist as a large digital networked sphere rather than a material planet.

the primary function of U10.interactive is to become a networked city of bits, a vision of what the future of urbanity and architecture will be. rather than a city governed by a single entity, it is its own being, a true cyborg. where it goes from here is completely up to its connected residents. the users share similar aspirations in what technology has allowed us to do and create, how it has allowed us to express our creative thoughts and emotion. however, we strive to push the limits, going beyond the expected to produce glipses of this digital future we are embarking on.

the work planned to appear on the site will be produced and compiled into systems based on their functions by agents, who will be selected for their own beliefs in the future and what they feel technology can offer society. agents are therefore the architects for the city of bits, who introduce components and places of interactive digital architecture into the matrix. Inhabitants of the city are encouraged to experience all systems and components of the digital architecture to prepare themselves for the future of technology.

U10.interactive is completely database driven will a full backend user authenticated administration system where agents login and update content and submit work to the site. the site is programmed using php due to its excellent interconnectivity with its backend mysql database.

^ **sketch.addiction**
ink

< **sketch.organic**
ink


.U10 INTERACTIVE // VERSION1_0
_URBANMORPHOLOGY.82009
X_DMHZ
URBAN10//interactive
.SOCIAL_AUTONOMY
.VSL // MECHANISM
25 Milligrams // 2advanced Studios
"25 Milligrams" is a full motion graphics piece created by 2advanced Studios for the BD4D (www.bd4d.com) gathering in Los Angeles in May 2002. Dubbed the "Creative Fight Club", BD4D is a chance for designers to get together, share ideas, talk design and just have an all around good time.
MORE
LACMA // Rem Koolhaas
Once all continents formed a single whole. Then they drifted apart. We propose to undo LACMA's "continental separation". Imagine an almost utopian conditions where the history of the arts can be told as w single and simultaneous narrative showing moments of chronological coincidence, autonomy, influence and convergence.
MORE
.EXT // REACH
Brand Identity and Package Design Conference
06.23-06.25 2003 // Chicago, IL
Information Design Summer Academy
07.28-08.8 2003 // Salzburg, Austria
IDSA National Conference
08.13-08.16 2003 // New York, NY
:MSG RECEIVED
20030625_1229 // urban10
How invaluable would it be if you had the full and undivided attention of a web expert such as Jeffrey Veen of Adaptive Path available to answer any questions you may have at the drop of a hat? Well, now you
18th 2003 at the Oregon Convention Center in Portland, Oregon you will get that chance. Explore the future of the Web at WebVisions. WebVisions is a forum designed to encourage dialog about ideas and the ever-changing possibilities of web site design and development. The goal is to inspire the Web community and individuals to look at how the Web will evolve in the long run and visualize the possibilities.
20030622_0756 // urban10
Ahhh summer...
I can't believe the weather we've had. Sunshine for 6 weeks straight. Almost tropical temperatures. Listening to the radio and noncommittal and superficial pop music. Got a large bowl of dark, firm and sweet cherries next to me. The news says the autobahn is crowded, which is always a sign that people are on their way south, heading for the beaches of Italy and France. I can't believe to color the sky which is as blue as I remember the skies in Africa. The planes from Franfurt Airport crossing it with white stripes and making me feel homesick for a beach. But then I remember I'll be heading south soon, too.
When I come home tonight out little plaza will be crowded with people sitting in front of cafes and bars giving a very Italian feel to my little neighborhood.
20030621_2251 // stardust
Actually looking for inspiration. I have a lot of rough footage from different events in my life, without a cohesive narrative line. I've started editing but all I turned out were 1-2 minute pastiches or video collages. Most of my footages have that dreamy feeling and now I'm stumped on how to weave everything together.
:SCL INTERACTION
20030628_0514 // where are you chevnut? SeagullMeat
20030628_0507 // what/who are you listening to? (music,album,artist,ect) dylan
20030628_0250 // dreaming in sequences avocadojo
20030628_01230 // Can this be right? (pun intended) neurofaux
20030628_1228 // What makes a website a good one, considering... neurofaux
_COPYRIGHT 2003 // Urban10 Interactive


X_DMHZ
URBAN10//interactive
.SYS_ASCII
.DATA // SUBCONTENT
_theory.Articles
> discourse.On.Theory.And.Culture
How Postmodernists can help us :: 20030625_1229 // urban10
Two Sides :: 20030625_1229 // urban10
The Cult of "Turn Off Your Computer" Must Die :: 20030625_1229 // urban10
A Eulogy for Design :: 20030625_1229 // urban10
+++ Networked_CULTURE :: 20030625_1229 // urban10
Redefining a Conceptual Approach to Multimedia :: 20030625_1229 // urban10
Non-invasive Marketing :: 20030625_1229 // urban10
Vernor Vinge on The Singularity :: 20030625_1229 // urban10
> experimental.Investigations
D + P [Design and Programming] Reasearch :: 20030625_1229 // urban10
Who are we now? Hypertext Fiction :: 20030625_1229 // urban10
The Cult of "Turn Off Your Computer" Must Die :: 20030625_1229 // urban10
A Eulogy for Design :: 20030625_1229 // urban10
> digital.Media.Analysis [art + music + books + web + architecture + illustration]
D + P [Design and Programming] Reasearch :: 20030625_1229 // urban10
Who are we now? Hypertext Fiction :: 20030625_1229 // urban10
The Cult of "Turn Off Your Computer" Must Die :: 20030625_1229 // urban10
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Redefining a Conceptual Approach to Multimedia :: 20030625_1229 // urban10
Non-invasive Marketing :: 20030625_1229 // urban10
Vernor Vinge on The Singularity :: 20030625_1229 // urban10
> innovative.Substance
these stories are made up :: 20030625_1229 // urban10
Agadez :: 20030625_1229 // urban10
Antaph: part_1 :: 20030625_1229 // urban10
Antaph: part_2 :: 20030625_1229 // urban10
The Big Day :: 20030625_1229 // urban10
Experiential Realities :: 20030625_1229 // urban10
send us your submissions! include brief description, category, and author (name, email, url).
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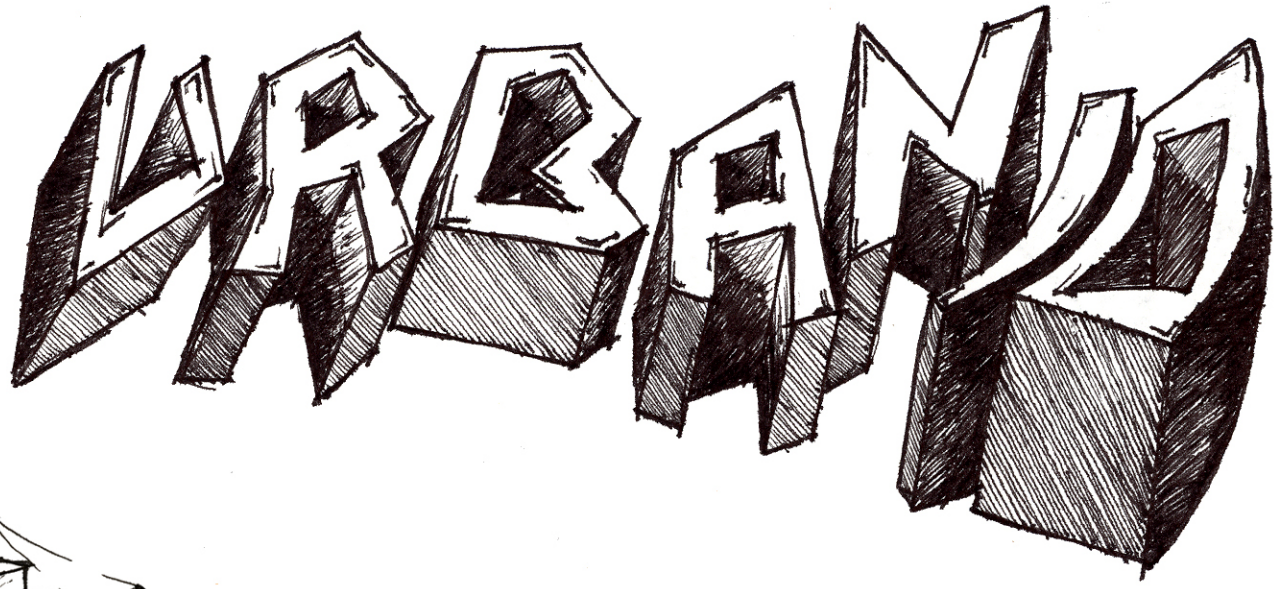

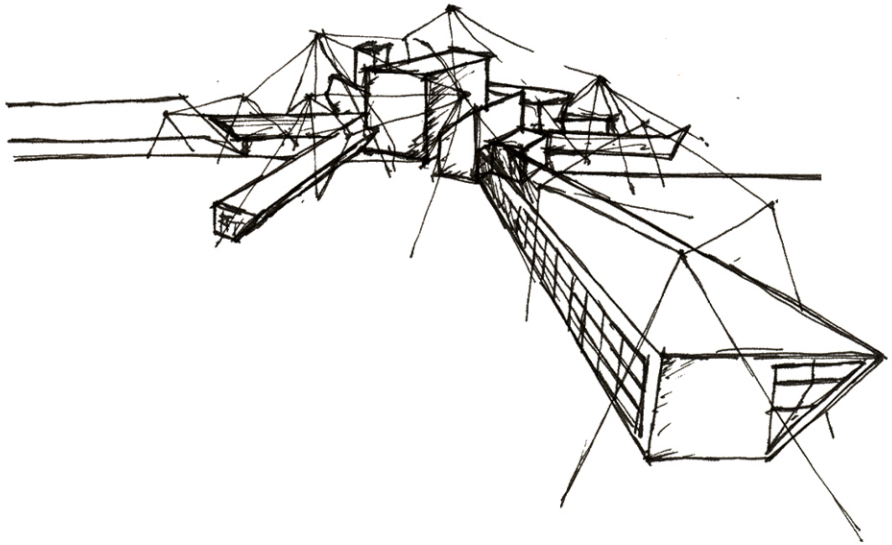

• • • **sketch.typographystudy**
ink

< **sketch.urbanmorphology**
ink

> **sketch.49squareroot**
ink

02 _____ 03

49.SQUAREROOT

OUR WORLD IS ROOTED IN THE SQUARE— THE GEOMETRY AND THE BALANCE. VISUALLY UNDERMINED— STRUCTURALLY UNSTABLE. AXISES OF CURVE AND ORTHOGONAL. INNERLY BOTH ENVIRONMENT AND SOCIETY. WHAT IS THE NORMALITY— THIS ZONE OF COMFORT? WILL BREAKING OUT OF THIS ZONE BE CATASTROPHIC? ARE WE AFRAID? OF WHAT?

:// education

university of texas at austin
january 2000 - present

bachelor of architecture // to be awarded may 2006

architecture excellence in design award, spring 2004
architecture sound building distinction honors, spring 2004
university honors, spr 2000 - fall 2001, spr 2003 - spr 2004
dean's honor list, spring 2000
cum laude, spring 2000, spring 2004
gamma beta phi national honor society, fall 2001 - fall 2002
maintained overall gpa at or above 3.5

nicholas.craigshipes

://e^nshipes@urban10.com
://u^www.urban10.com

:// design related knowledge + tools

print design + digital multimedia
adobe creative suite (photoshop, illustrator, indesign, pagemaker)
macromedia mx suite (freehand, fireworks)
bryce 3d
3d studio max 4+
autocad 2000+
maya 6, mel scripting

html/web development + programming
macromedia mx suite (dreamweaver, flash)
languages: flash actionscript, html, dhtml, css, ajax, javascript, php, perl, xml
databases: mysql, oracle

audio + video
adobe after effects, logic pro

computer platforms
windows (xp, 2000, server nt, me, 98, 95, 3.x)
mac (os9.x, os10.x)
linux web server setup + administration
apache server software

CONNECT

:// professional experience

freelance designer, urban10 interactive
2002 - present

_ personal freelance graphic design and web development company
_ rich internet applications, client identity + branding, print, motion
_ handle all aspects of web-based projects, from conceptual design, to final design development+ coding, to standards testing, to business administration

intern architect, weiss/manfredi architects
2005

_ developed publication, exhibition + presentation graphics
_ extensively engaged in the construction of physical + digital study models

student programmer, UT ITS
2004

_ design and develop online interactive student portal to be integrated into UTDirect
_ integration of oracle database backend with php frontend dynamic system
_ comply with wc3 and university of texas web accessibility standards

intern architect, scott ballew, inc. architects
1999 - 2001

_ primarily performed computer-aided drafting (cad) duties
_ assisted the design and documentation of construction documents and working drawings
_ participated in on-site construction visits
_ occassional project consultant communication

intern architect, cutright & allen architects
2000

_ assisted in completion of working drawings and construction documents
_ occassional construction site visits