amber'10

sanat ve teknoloji festivali
art and technology festival

Including
amberConference'10
Proceedings

istanbul 2010 AVRUPA KÜLTÜR BAŞKENTİ

VERİKENT/DATACITY
5-14 KASIM/NOVEMBER 2010
SANAT LİMANI - ANTREPO 5

HTTP://WWW.AMBERFESTIVAL.ORG | HTTP://WWW.AMBERPLATFORM.ORG

amberKonferans/Conference
4-7 KASIM/NOVEMBER 2010
İSTANBUL MODERN SİNEMA/CINEMA

amber'10

sanat ve teknoloji festivali
art and technology festival

AMBER'10 SANAT VE TEKNOLOJİ FESTİVALİ
VERİKENT

amber'10 Sanat ve Teknoloji Festivali bu sene İstanbul 2010 Avrupa Kültür Başlenti Ajansının desteğiyle dördüncü yılını kutluyor. 2007'de başlayan amberFestival ilk günden beri desteğini esirgemeyen kişi ve kurumların yanısıra 2008'den bu yana İstanbul 2010 AKBA'dan aldığı üç yıllık destekle yoluna devam ediyor.

amber'10 Sanat ve Teknoloji Festivali dördüncü yılında "Verikent" temasıyla modern kenti diğer tanımlarının yanı sıra, bir veri kümesi olarak ele almayı öneriyor ve sanatçıların yorumlarıyla Verikent'in yaşam formlarına, üretim-tüketim biçimlerine ve politikalarına Sanat ve Teknoloji perspektifinden bakıyor.

amber'10 Sanat ve Teknoloji Festivali tema sergisinin dışında iki sergiye daha ev sahipliği yapıyor. İstanbul 2010 Avrupa Kültür Başkenti - Sivil Toplum Diyaloğu Hibe Programı çerçevesinde desteklenen Global Gateway (Küresel Geçit) Projesi kapsamında sergilenen işler küresel bir geçit olarak istanbul'a bakarken, Linz Sanat ve Endüstriyel Tasarım Üniversitesi Arayüz Kültürü Master Programının işlerinden oluşan Playful Interface Cultures (Eğlenceli Arayüz Kültürleri) sergisi şehrin ve bugünün yaşama biçimlerini bugünün teknolojileri ile yorumluyor.

Ekmel Ertan
Sanat Yönetmeni

AMBER'10 ART AND TECHNOLOGY FESTIVAL
DATACITY

With the theme entitled "Datacity", amber'10 Art and Technology Festival offers to read the modern city as a data cluster and, in this way, it presents an alternate perspective to existing definitions and approaches of the city.

Each in its own way, the artworks exhibited in the main exhibition of amber'10 examine an aspect of the theme Datacity. They interpret "ways of life", production and consumption patterns, and politics of the Datacity from the vantage point of arts and technology.

In addition to the thematic exhibition, amber'10 hosts two other exhibitions. The first is the Global Gateway Project, funded by Istanbul 2010 European Capital Of Culture - Civil Society Dialogue Grant Program. The second is the Playful Interface Cultures Exhibition, which is created by the Interface Culture Graduate Program, Linz Art and Industrial Design University. Both exhibitions raise questions on the impact of contemporary technologies for the experience of the city for its inhabitants and the perception of the city as a concept.

Ekmel Ertan
Artistic Director

SERGİLER/EXHIBITIONS

VERİKENT/DATACITY

5-14 KASIM/NOVEMBER 2010

SANAT LİMANI (ANTREPO NO.5)

TİPKENT: İSTANBUL / TYPECITY: ISTANBUL

TRAVIS KIRTON

TypeCity: Istanbul is a print-based/interactive typographic-representation of Istanbul. Typographic works are created using original software (called TypeIs) developed by the artist which allows for drawing with non-linear typesetting techniques.

TypeCity: Istanbul uses writings and data published by the London School of Economics (www.urban-age.net). Nearly all publications concerning the city of Istanbul have been written (in English or Turkish) by academics, architects and thinkers from around Turkey.

TipKent: İstanbul, İstanbul'un baskı temelli/etkileşimli tipografik bir betimlemesidir. Tipografik işler, sanatçı tarafından geliştirilmiş, doğrusal olmayan dizgi teknikleriyle resmetmeyi sağlayan özgün bir yazılım (TypeIs) kullanılarak oluşturulmuştur.

TipKent: İstanbul, Londra Ekonomi Okulu (www.urban-age.net) tarafından yayınlanmış yazı ve verileri kullanmaktadır. İstanbul üzerine yapılmış yayınların neredeyse tümü İngilizce veya Türkçe olarak Türkiye'den akademisyenler, mimarlar ve düşünürler tarafından yazılmıştır.

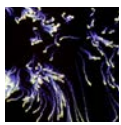
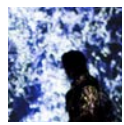
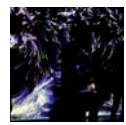



ROAD

AKIŞKAN ÖRGÜ / LIQUID GRID
FRIEDER WEISS

Ne zaman içinde başka kişiler bulunan bir odaya girsek, oda anında yeni bir biçim kazanır. Biz durumu değerlendirir, konumumuzu tanımlar, belki göz teması kurar, belki de bundan kaçınırız. Küçük jestler veya dışa yönelik olarak takınılan pozlar bizim için eşit yer kaplar...

Whenever we enter a room with other people in it, this room is instantly remodeled. We are judging the situation, defining our position, might make eye-contact or avoid it. Small gestures or extroverted poses occupy an equivalent space for us...

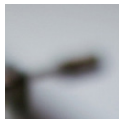




TRANS(PORT)(L)ATION

PETRA DUBACH, MARIO VAN HORRIK

İstanbul kentinden ulaşım verileri: hepsi de Taksim'e giden 20 otobüs hattı; kentin Avrupa yakasındaki 18 vapur iskelesi; Atatürk Uluslararası Havalimanı'nın giriş kapıları. Her bir ulaşım biçiminin (otobüs, vapur, uçak) bir iş günü içindeki tarifesi, müzik kutularının kartları üzerinde yer alıyor. Üç müzik kutusunun her birinin kendine ait partisyonu var. Ziyaretçiler her bir kaydı çalabiliyor ve bu yolla, İstanbul'un ana ulaşım sistemlerinin müzikal tercümesini dinleyebiliyor. Bu iş, analog yolla veri yorumlamasının iyi bir örneği.

Transportation data from the City of Istanbul: 20 buslines, all towards Taksim, The 18 ferryports on the European side of the town, and the gates from Atatürk International Airport; the timetables (of one working day) of each of these means of transportation (bus, ferry, flight) are set out on cards that can be handplayed by musicboxes. Each of three musicboxes has its own score. The visitors can play each score and in this way listen to a musical translation of the main transportation systems of Istanbul. This work is a good example of data interpretation in an analog way.

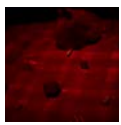
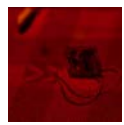
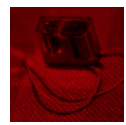



START

SAMPLINGPLONG
JOERG NIEHAGE

Rastgele seçilmiş, akustik olarak kullanılabilir buluntular (elektronik hurdalar, yedek parçalar, plastik oyuncaklar, basınçlı hava vanaları, pnömatik prensibe dayalı çalışan parçalar) kablolar ve borularla birleştirilir. Bilgisayar tarafından kontrol edilen bir gereç vasıtasıyla bunlar, etkileşimli araçlara dönüştürülür. Farenin üstüne gitmesi ve tıklamasıyla, yoğun ritmik tıklamaların, tıslamaların, hışırtıların, vızıltıların, uğultuların ve çatırdamaların minyatür kompozisyonlarından doğaçlama bir orkestra ortaya çıkar. Ormana benzeyen kablo ağından bir ses nakışı işlenir.

Randomly selected, acoustically usable finds (electronic junk, relays, plastic toys, compressed air valves, pneumatically operated components) are combined with cables and tubes. Via a device controlled by computer, they are turned into interactive instruments. An improvised ensemble evolves, from which - per mouse-over and mouse-click -short miniature compositions of dense rhythmic clicks, hisses, whirs, hums and crackles can be elicited. A tapestry of sound bursts forth from the floral-like web of cables.

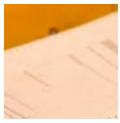




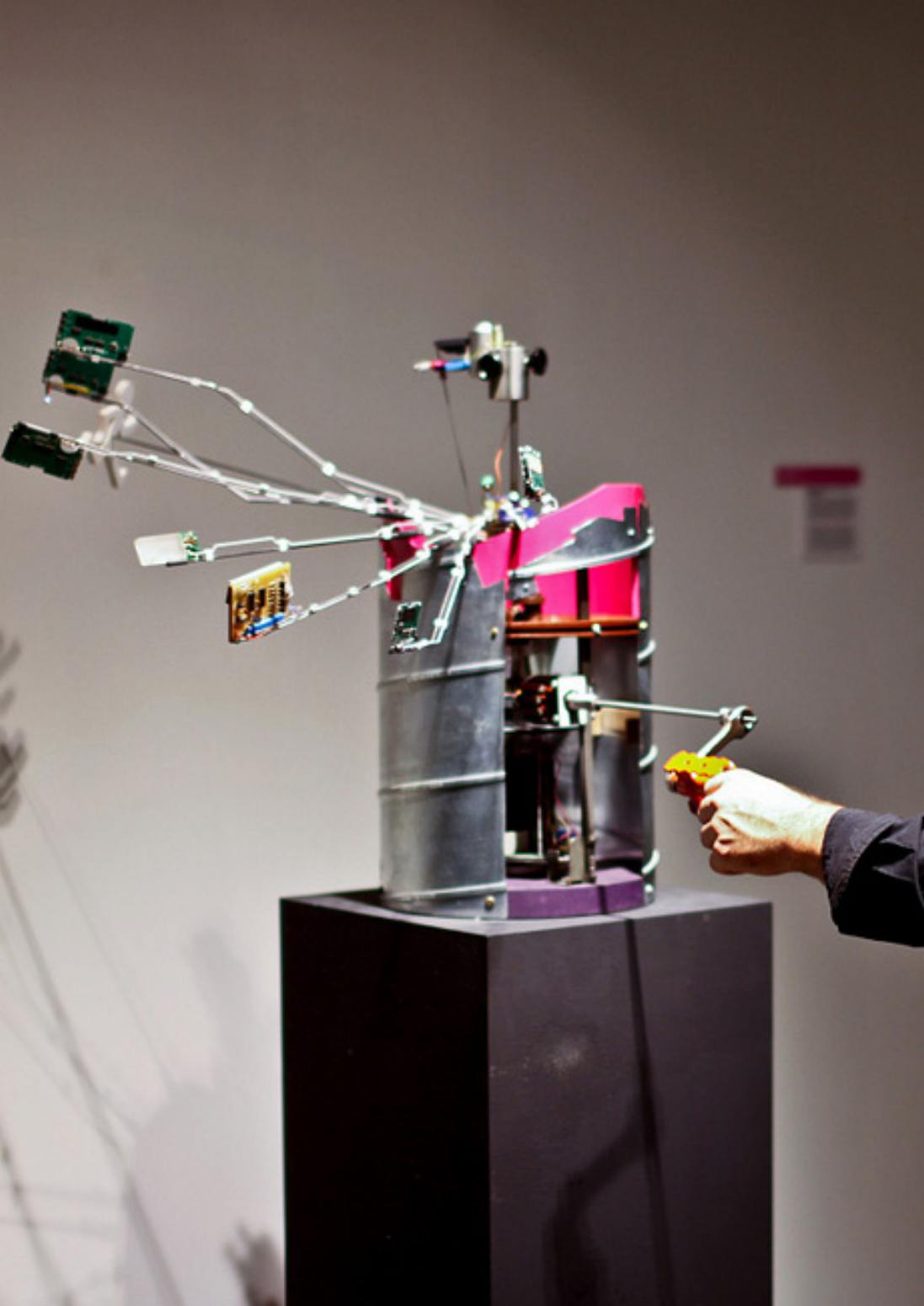
GEÇMİŞ-ŞİMDİ-GELECEK / PAST-NOW-FUTURE

AHMET SERTAÇ ÖZTÜRK, MEHMET ERKÖK

Hızlı veri üretimi ve sanal bilgi paylaşım alanları hayatın gerçekliğinin unutulmasına neden olacak mı? Bu yerleştirme, verinin üretimi ve hızlı tüketimi ile birlikte kullanılamaz hale gelmesi veya bir köşede yitip gitmesi sürecini yansıtmakta. Sanal alanda çiğnenip hızla tükürülen bilginin geri dönüştürülmesi için neyi bekliyor olacağız?

Will rapid data generation and virtual sharing platforms cause oblivion of the truth of life? This installation reflects the course where data becomes useless and perishes due to its rapid production and consumption process. What else are we going to be waiting for to start recycling the information chewed and spitted out rapidly in the virtual realm?



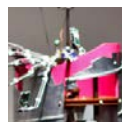


KAÇ VERİ - KOVALA VERİ / CATCH DATA - ESCAPE DATA

MEHMET ERKÖK, AHMET SERTAÇ ÖZTÜRK

Veri hiçbir dönemde olmadığı kadar yoğun, bazen ihtiyacımızdan fazlasıyla yüz yüze kalıyoruz. Kimimizi memnun ediyor, kimimiz ise kurtulmak istiyor. Bu kinetik çalışma, izleyenin gövde üstündeki kolu çevirmesi ile çalışmaya başlıyor. Dikey bir eksen etrafında dizili, biri insan figürü, diğerleri 8-10 kadar monitör ve dijital gösterge beraber olarak dönmeye başlıyorlar. İzleyen kolu istediği yöne çevirebilir; bir yönde figür veriden kaçıyor, diğer yönde figür verileri yakalamaya çalışıyor; nasıl olacağı izleyene kalmış.

Data production is intense as it has never been before, sometimes confronting us much more than our needs. While pleasing some of us, this also fills some of us with the urge to escape. This kinetic work is triggered by the viewer who twists the lever on the body. One human figure and about 8-10 monitors- digital indicators arranged around a vertical axis start spining all together in a row. The viewer is free to twist the lever whichever direction he likes, while the figure escapes from the data in one direction, catches it in the other, depending on the viewers decision.


AÇIK DUVAR JUNIOR - İSTANBUL 2010 + RUHR 2010 / OPEN WALLS JUNIOR - ISTANBUL 2010 + RUHR 2010

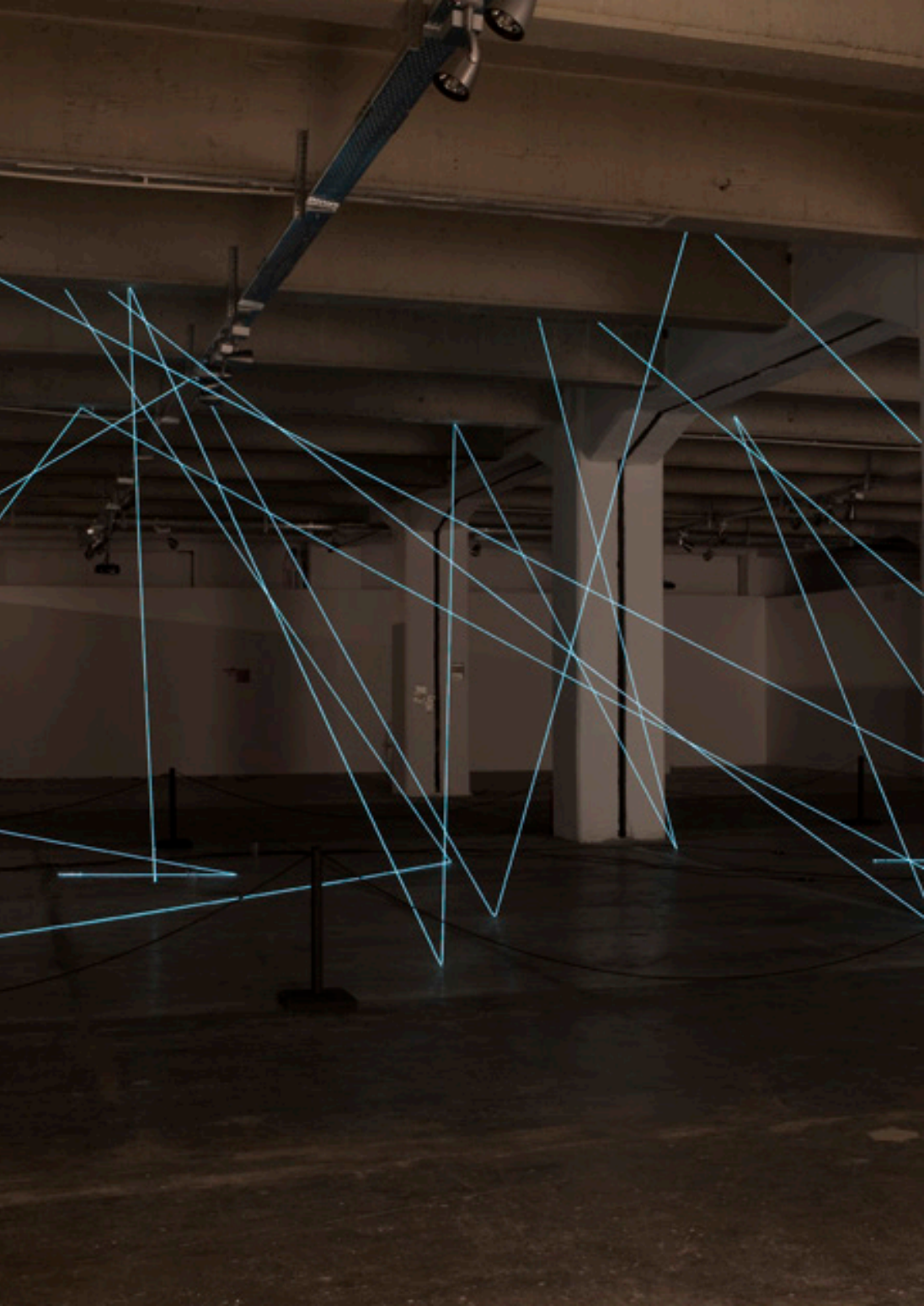
AKRYLONUMERIK COLLECTIVE

Akrylonumerik Kollektif (Fransa), Pottporus Sanat Merkezi (Almanya), le M.U.R (Fransa), 41' 29' İstanbul (Türkiye), Avrupa Komisyonu'ndan 2011 yılında Türkiye, Fransa ve Almanya arasındaki sanatsal, kültürel ve üniversiteler arası ortaklık aracılığıyla kurulacak kentsel kültürler için ortak bir platform oluşturmak üzere istekte bulunmuştur. "CrossRoads" projesinin bir ön izlemesi olarak Açık Duvar Junior, ilk sunumunu amberFestival'de gerçekleştiriyor. İstanbul 2010 ile Ruhr 2010'u birbirine bağlayan, orijinal çizim ve animasyon yazılımı LopArtHDTouch temelli bu özgün ağ tabanlı yerleştirme, sanatçıların ve seyircinin, coğrafi, dilbilimsel ve kültürel engellerin ötesinde gerçek zamanlı, ortak sanat yapıtları yaratmasını mümkün kılacaktır.

"CrossBridge" adı verilen özel anlar, 5 Kasım'da saat 19:00'da amberFestival'in açılışı sırasında ortak bir tema üzerine ortak bir iş yaratan sanatçıları vitrine çıkaracak. Bu etkinlikte Herne, Pottporus Festivali, Billboard 32' 18'in açılışı ve amberFestival birbirine Açık Duvar Junior aracılığıyla bağlanacak.

The Akrylonumerik Collective (France), the Pottporus Art Center (Germany), le M.U.R (France), 41' 29' Istanbul (Turkey) have solicited the European Commission to create a shared cross-platform for urban cultures through artistic, cultural and university cooperation between Turkey, France and Germany in 2011. As a preview of the "CrossRoads" project, Open Walls Junior will make its first presentation in Amber Festival. Connected between Istanbul 2010 and Ruhr 2010, this unique mirror networked installation, based on the original drawing and animation software LopArtHDTouch, will allow the artists and the public to create, in real time, common artworks beyond geographic, linguistic and cultural barriers.

Specific moments called "CrossBridge" will showcase artists creating a shared work on a common theme on November 5th, at 19:00 during the opening of amberFestival. In this event Herne, Pottporus Festival, opening of Billboard 32' 18' and amberFestival will be connected via Open Wall Junior.

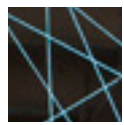


KAPASİTİF BEDEN / CAPACITIVE BODY

ANDREAS MUXEL, MARTIN HESSELMEIER

"Kapasitif beden" yerleştirmesi, etrafındaki sese tepki veren modüler bir ışık sistemidir. Her bir özel olarak oluşturulmuş modül, piezoelektrik bir alıcıya ve mikro-işlemciye bağlı bir elektrolumine ışık telinden oluşmaktadır.

The installation "capacitive body" is a modular light system that reacts to the sound of its environment. Each custom built module consists of an electroluminescent light wire linked to a piezoelectric sensor and a microcontroller.

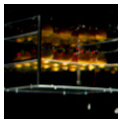



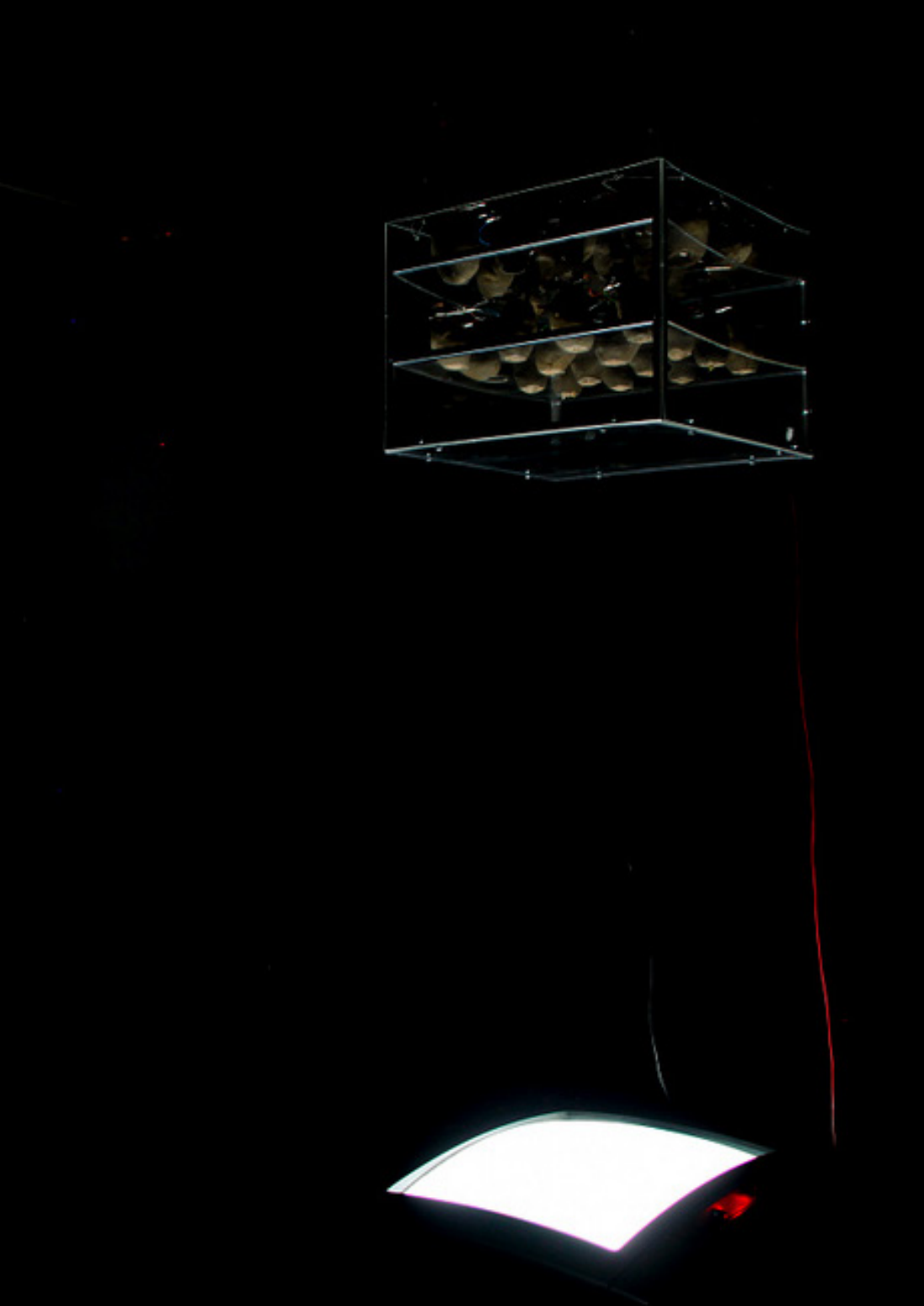

AV1/AV2

MARTINKA BOBRIKOVA, OSCAR DE CARMEN

Bu yerleştirme, artık meyve sebzeden enerji üretme imkanları üzerine uzun süreli araştırmalara dayanmaktadır. Basit açık bir donanımla meyve ve sebzeden elde edilen enerji, entegre devreler vasıtasıyla görsel-işitsel yerleştirmelere dönüştürülmektedir. İlgi çekici bir görsel-işitsel biçime sahip olmalarının yanında yerleştirmeler, mevcut tüketim toplumunun sosyal bir eleştirisini yapmakta ve süpermarket zincirleri tarafından artık ve satılamaz kabul edilen meyve ve sebzelerin yeniden kullanımınına yönelik belli bir alternatif öneri getirmektedir.

The presented installation is based on our long lasting research of the possibilities of generating the energy from redundant fruit and vegetables. By means of a simple open hardware the energy acquired from fruit and vegetables is transformed through integrated circuits into audio-visual installations. Apart from an interesting audio-visual form, the installations become the social criticism of the current consumerist society and also offer a certain alternative for a further use of fruit and vegetables which were considered as redundant and unsalable by superstore chains.

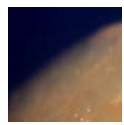



AMN-BAL ŞEHRİNDE MOLA /
AMN-STOPOVER IN THE CITY OF HONEY

NICOLAS REEVES - DAVID ST ONGE

Yerleştirme, bal ve yalıtım yağıyla doldurulmuş ve güçlü LED'lerle donatılmış bir akvaryuma daldırılmış küçük stereolitografik bir heykele dayanmaktadır. Neredeyse şeffaf olan heykel, içinde yüzlerce küçük kare profil tünelin ufak üç boyutlu bir labirent oluşturarak Montreal kentini farklı tarihsel aşamalarda resmettiği bir tekneyi sembolize etmektedir. Ev sahibi kentin elektromanyetik hareketliliği her yoğunlaştığında (radyo istasyonları, cep telefonları vb nedeniyle), ledler daha sık yanıp sönmekte ve heykelle içinde bulunduğu puslu sıvıdaki içsel anatomiyi göz önüne çıkarmaktadır.

The installation consists in a small stereolithographic sculpture immersed in an aquarium filled with a mix of honey and insulating oil, and surrounded by powerful LEDs. The sculpture, which is almost transparent, symbolizes a boat within which hundreds of small, square-section tunnels represent maps of Montreal city at different historical phases, creating a small 3D labyrinth. Whenever the electromagnetic activity of the hosting city gets more intense (radio stations, cell phones...), the leds flash more and more often, revealing the sculpture and its internal anatomy in its hazy liquid.


EĞLENCELİ ARAYÜZLER/PLAYFUL INTERFACES

Arayüz Kültürü Master Programı, Linz Sanat veTasarım Üniversitesi /
Interface Cultures Graduate Program, Linz Art and Design University

5-14 KASIM/NOVEMBER 2010

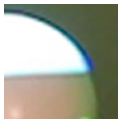
SANAT LiMANI (ANTREPO NO.5)

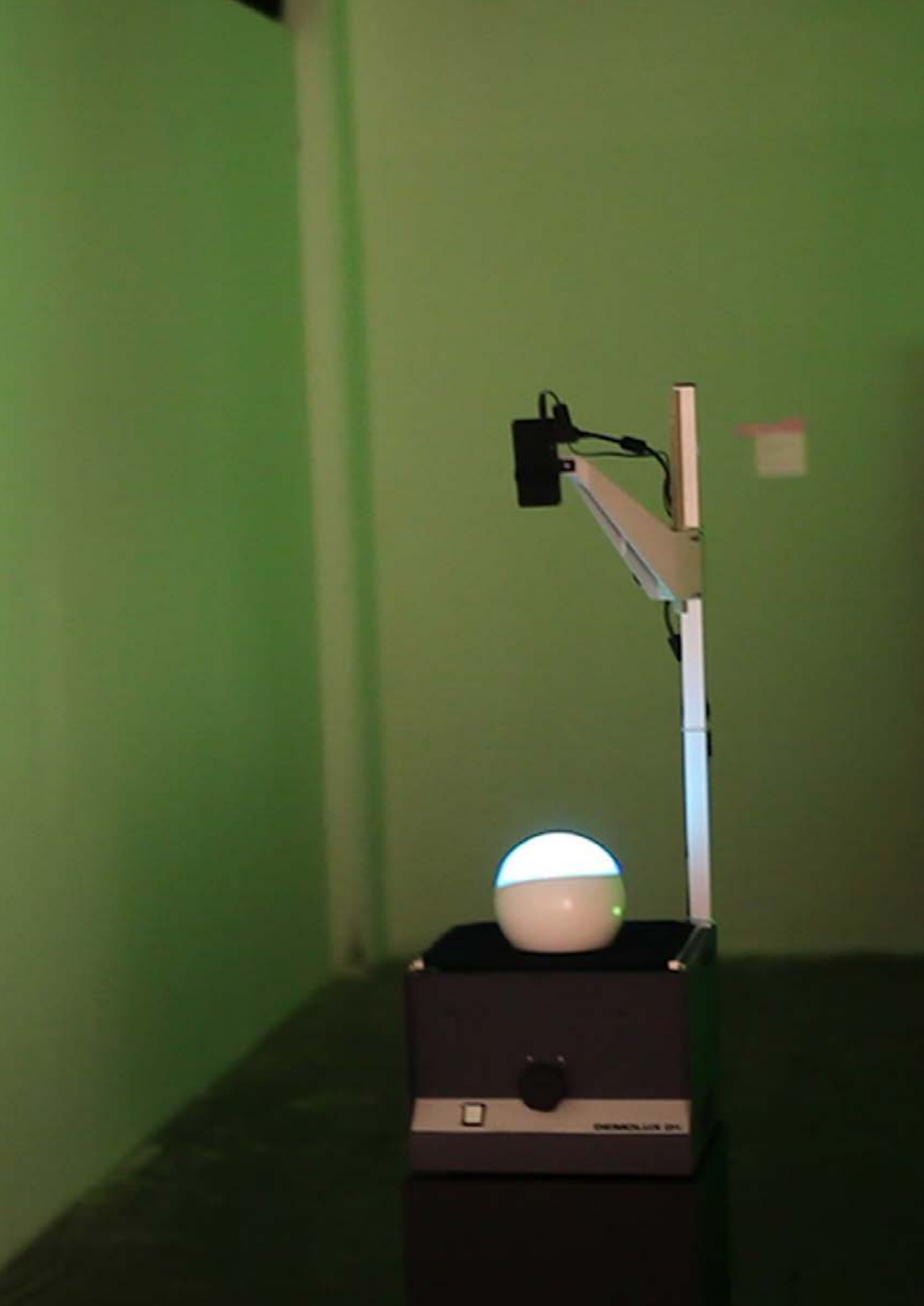
ENDOTASTİK SEYAHAT A20.10 / ENDOTASTIC VOYAGE A20.10

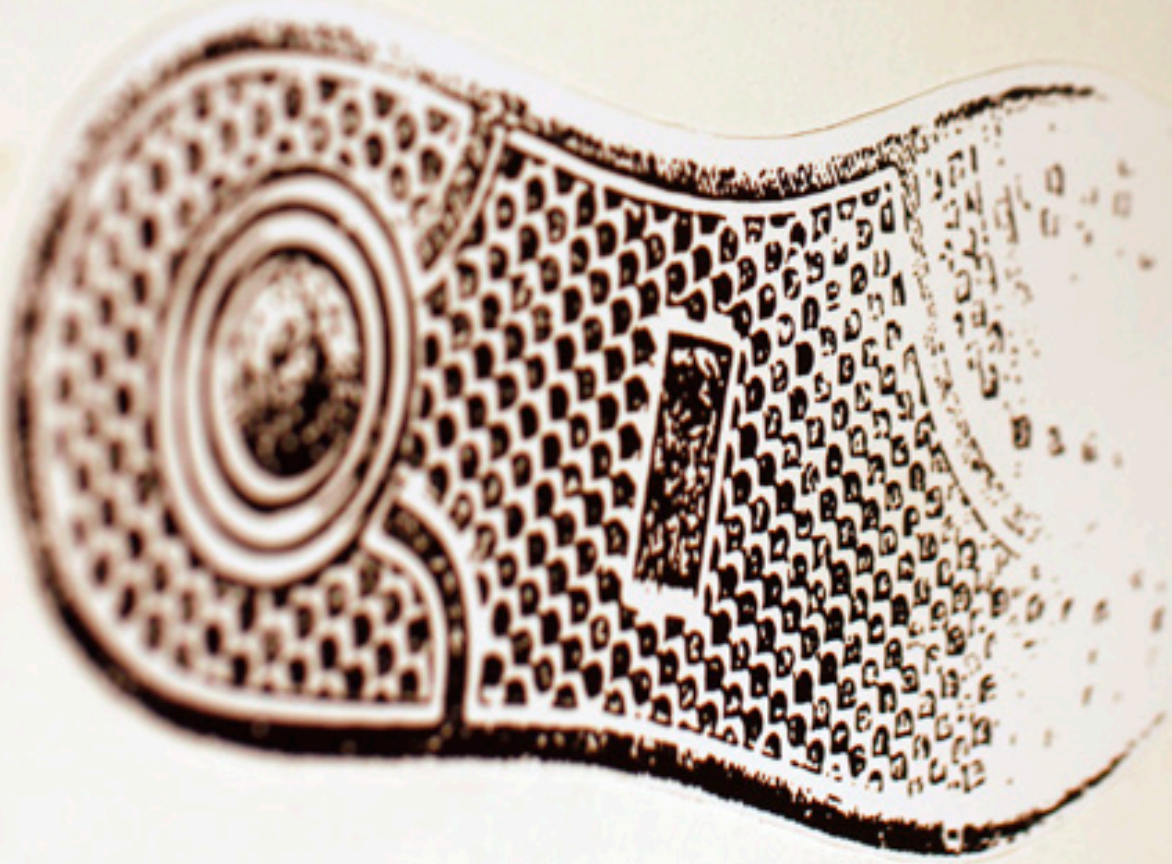
REINHARD GUPFINGER

Endotastik Seyahat A20.10, insanın bedenler arası boşluğunun temsilinin farklı yönlerini ele alan ve sanat ile tıbbın arasındaki uçurumun üzerinde bir köprü kurmaya çalışan etkileşimli ve görsel-işitsel bir deneyimdir. Proje, endoskopik ve laparoskopik kameraların insan organlarını dolaylı bir tetkiki aracılığıyla kullanıcıları, insan bedeniyle aralarında geçecek yaratıcı bir diyaloğun parçası olmaya davet eder. Bu iş için modifiye edilmiş bir tepe projektörü, kullanıcıların dokunsal, görsel ve sesle ilişkili olarak keşif yapmalarını ve kişisel beden farkındalıklarını artırmalarını sağlayan sezgisel bir kullanıcı arayüzü işlevi görmektedir.

The Endotastic Voyage A20.10 is an interactive audiovisual experience that deals with various aspects of representations of the human intercorporeal space, and intends to bridge the gap between art and human medicine. The project invites users to take part in a creative dialog with the human body by using endoscopic and laparoscopic cameras for an indirect examination of human organs. A modified overhead projector functions as an intuitive user interface that allows users tactile, visual and sonic exploration and personal increase of body awareness.

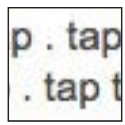


SERSERİ PABUÇLAR / RAMBLER SHOES

RICARDO O'NASCIMENTO, TIAGO MARTINS

Bu proje, kullanıcının adımlarını Tweet'leyerek asıl itibariyle mikro-günlük tutmayı bir adım öteye taşıyan bir çift lastik pabuç sunmaktadır. Mesajlar "tap" ve "." kelimelerinin tekrarlarından oluşur. Bunlar sırasıyla, yürüyüşçünün adımlarını ve bunların arasında geçen süreyi sembolize eder.
Serseri Pabuçlar, neredeyse-saplantılı hale gelmiş mikro-günlük tutma alışkanlıkları hakkında eleştirel bir yaklaşımdır ve her gün bloglama ve Twitter gibi sosyal platformlar vasıtasıyla üretilen bilginin kişiye özel doğası, miktarı ve faydasını araştırır. Amacı, mikro-günlük tutma pratiğini, kısmen belirsiz, tekrarlayan ve tartışılır biçimde faydasız büyük miktarda kişisel bilgi yaymaya yarayan otomatik, düşüncesiz bir eyleme dönüştürerek olası uç noktalardan birine getirmektir.

This project presents a pair of sneakers that make microblogging one step further by literally posting the wearer's steps on a Twitter account. Messages are comprised of repetitions of the word "tap" and "." Respectively symbolizing the wearer's steps and time in between these.
Rambler Shoes is a critical take on near-obsessive microblogging habits and elicits reflection on the personal nature, amount and usefulness of information generated everyday through blogging and social platforms such as Twitter. It aims to bring the practice of microblogging to one of many possible extremes, turning it into an automatic, thoughtless act of diffusing large amounts of slightly ambiguous, repetitive and arguably useless personal information.

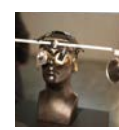


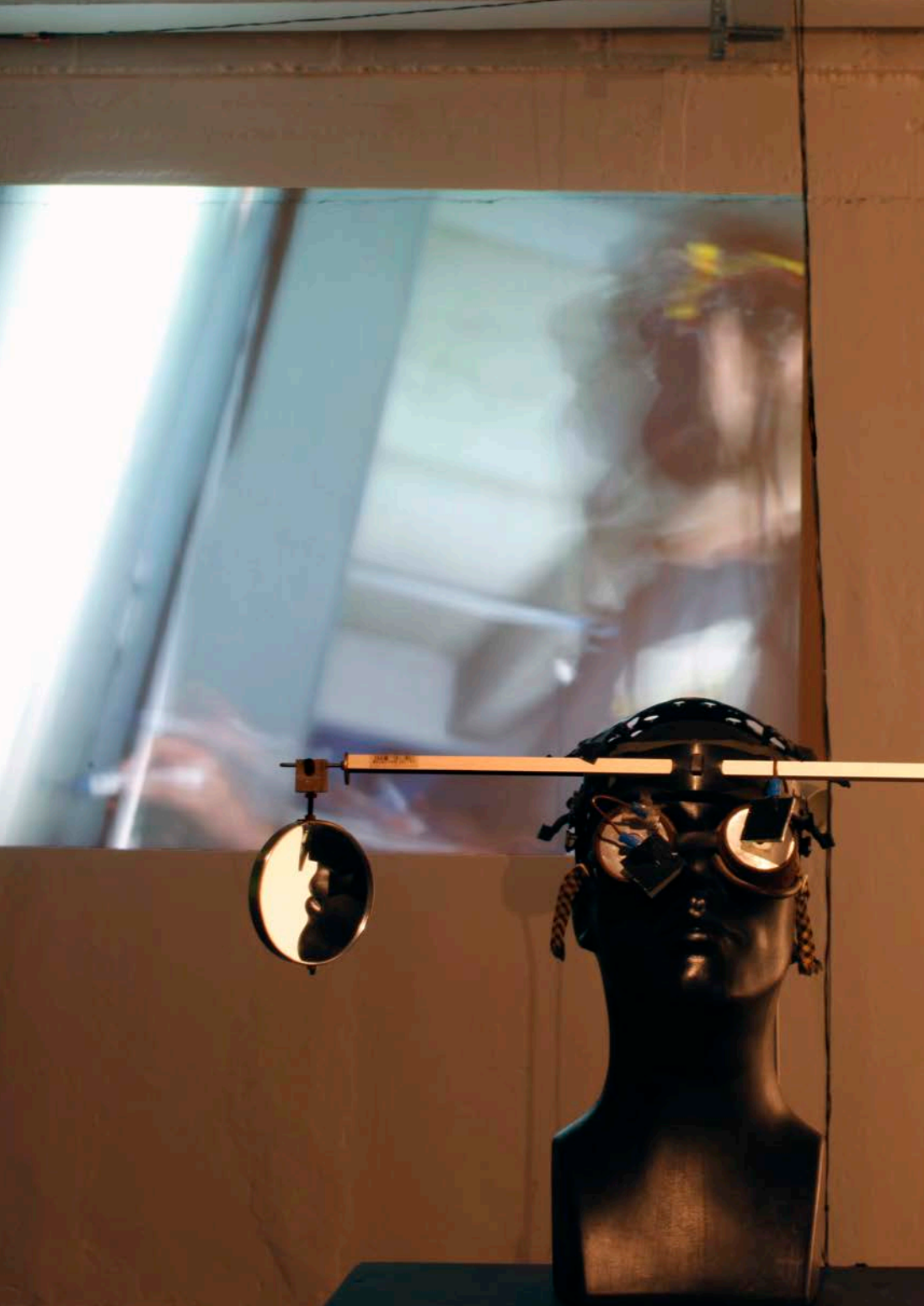
YAPAY AHMAKLIK / ARTIFICIAL STUPIDITY

BAGER AKBAY, ANA CIGON, VASJA PROGAR

Yapay Ahmaklık, genişçe birden fazla sayıda kademede tanımlanmış bir projedir. İçinde insanlar, sanat ve etkileşim gibi çeşitli meseleleri ele aldığımız, esnek bir bağlamı temsil eder. Sergideki parçalar ve olaylar, izleyicileri işbirliği yapmaya davet etmek maksadıyla sunulmuştur.

Artificial Stupidity is a project loosely defined on multiple levels. We have chosen a flexible context in which we are considering a variety of subjects; such as humans, art and interaction. The pieces and events in the exhibition are presented for the purpose of inviting visitors to collaborate.





THUMB FU!

TIM DEVINE, VESELA MIHAYLOVA

Thumb-Fu! üst düzeyde geliştirilmiş bir tür parmak güreşidir. Başparmaklara kıyafet yapmak üzere iletken kumaşlar ve iplikler kullanılıyor. Karakterler birbirine değdiğinde ses efektleri tetikleniyor. Birisi tuş edildiğinde geri sayım başlıyor ve galibiyet borusu ötüyor.

Thumb Fu! is super enhanced thumb wrestling. We use conductive fabric and thread to create thumb suits. When the characters touch sound effects are triggered. If somebody is pinned down a countdown begins and then winning fanfare is played.

NANOCUP

HUGO MARTINEZ-TORMO

Cam Silisyum Dioksit'ten (SiO_2) meydana gelir. Bu etkileşimli yerleştirmede, ziyaretçi üç şarap kadehi üzerinde -parmağımızı kadehin kenarında dolaştırarak ses çıkarmak için yaptığımız gibi- elini dolaştırarak Silica bileşenlerin görsel akustik bir temsilini üretir. Bu temsil, nano ölçekte Silica atomlarının yaydığı ışığın rengini -kırmızı ve mor- temel alır. Ses, ışığın dalga boyunu (nm) sesin frekansına (Hz) bağlayan matematiksel bir denkleme karşılık gelir. Böylelikle ziyaretçi, atomik nano ölçeğin dünyasında bir yolculuğa çıkar ve maddenin yeni davranış biçimlerini keşfedebilir. Nano ölçekte maddenin rengi nedir ve bu rengin sesi neye benzer?

Glass is made of Silica (SiO_2). In this interactive installation, the visitor can interact with a glass object generating a visual acoustic representation of the Silica components by touch. This representation is based on the colour of light emitted by the Silica atoms in the nanoscale, which is red and violet. The sound corresponds to a mathematical equation that relates the wavelength of the light (nm) with the frequency of the sound (Hz). So, the visitor can travel to the world of atomic nanoscale and discover new behaviours of matter. What colour does matter have in the nanoscale, and how does that colour sound like?



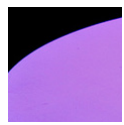
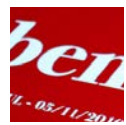
senin
İSTANBUL - 09/11/2010 - 14:19:18

URBAN MOOD

MAHİR M.YAVUZ

Urban Mood İstanbullu'ların gerçek zamanlı ruh halini görselleştirir. Yerleştirme, İstanbul'dan girilen "Tweet"lerden sürekli veri toplayarak, her gönderiyi analiz edip tek bir kelime ile özetler. Bu anahtar kelime sayesinde, kaynak "tweet"ler yerdeki platform üzerinde, renk ve sesin anahtar kelime-ye göre değiştiği tipografik bir animasyon yaratır. Böylece kişisel düşüncelerini Twitter'da paylaşan her İstanbullu, bu ruh hali üretiminin bir parçası oluverir.

Urban Mood visualizes the real-time mood of the citizens of Istanbul. The installation continuously collects the data from Tweeters in Istanbul, analyzing and summarizing each post in a single word. Through this keyword, the source tweets will create a typographic animation on the floor of the room, while colors and sounds will change to suit the content of the keyword. By sharing their personal thoughts on Twitter, every Istanbulian becomes a part of this mood production.

MOHR SMS

HUGO CAMARGO, VERONIKA PAUSER

Mohr SMS, bir cep telefonunun ekranının generatif (kendi kendine gelişen) sanat yaratmak üzere bir tuval gibi kullanıldığı, kişilerin SMS mesajı göndererek gerçek-zamanlı grafik unsurlar eklemesini mümkün kılan etkileşimli bir yerleştirmedir. Ortaya çıkan imgeler, Manfred Mohr'un ilk çalışmalarını (generatif algoritma imgeleri), özellikle de P18 (1969/1973) programını temel alır. İlk SMS alındığında, onun grafik temsili ekranda belirir. Ardından gelen mesajlarla on SMS'ten oluşan nihai imgeye ulaşılır. Sonrasında tuval yine kendini ilk haline geri döndürür ve yeni bir resim yapılmasına uygun hale gelir.
http://www.mohrsms.com/

Mohr SMS is an interactive installation in which the screen of a mobile phone is used as a canvas in order to produce generative art, allowing people to add graphical elements in real-time by sending text messages. The resulting images are based on Manfred Mohr's early works (generative algorithm images), especially the program P18 (1969/1973). When the first SMS is received, its graphical representation appears on the screen. By receiving further text messages it builds up to the final image, which consists of ten text messages. The canvas then turns itself to the initial state again and another picture can be made.
http://www.mohrsms.com/

İstanbul 2010
AVRUPA KÜLTÜR BAŞKENTİ
EUROPEAN CAPITAL OF CULTURE

MFİB

Civil Society Dialogue

GLOBALGATEWAY

BİS
BEDEN-İŞLEMSEL SANATLAR DERNEĞİ
BODY-PROCESS ARTS ASSOCIATION

KÜRESEL GEÇİT PROJESİ/GLOBAL GATEWAY PROJECT

Global Gateway, İstanbul 2010 Avrupa Kültür Başkenti - Sivil Toplum Diyaloğu Hibe Programı destekleğiyle gerçekleştirilmektedir./Global Gateway is funded by Istanbul 2010 European Capital Of Culture -Civil Society Dialogue Grant Program. Ortaklar/Partners:

CIANT - BIS - PERSONA - ARTOS - URIAC

5-14 KASIM/NOVEMBER 2010

SANAT LİMANI (ANTREPO NO.5)

METRO PLANI / SUBWAY LAYOUT

STEPHANE KYLES

Kamusal alanlarda doğrusal navigasyonu analiz eden, dönüştüren ve üreten etkileşimli video yerleştirme projesidir. Mevcut versiyon Prag metrosunun yeraltı mimarisinden ilham almıştır. Etkileşimli yerleştirme, önceden başlangıç noktasından hattın bitimine kadar kaydedilmiş metro raylarının kesintisiz resmi'ni üretmektedir. Ekranda yansıtılan iş, arkitektonik detaylara, dokulara veya sonsuz yeraltı tünellerinde gidip gelen kalabalıklara işaret ederek özgün imgelerin ortaya çıkmasını sağlamaktadır.

This is an interactive video installation project analysing, transforming and reproducing linear navigation in public spaces. The current version has been inspired by the navigation context of Prague subway underground architecture. The interactive installation, generates continuous Picture representing the parts of subway tracks, previously recorded from the start point to the terminus of the line. The rendered work gives raise to original images by pointing out architectonical details, textures or crowd travelling through the endless underground tunnels.




Strašnická


amberta

VİBRATÖR / VIBRATOR
PROKOP BARTONICEK

"Sanatta güzellik" kavramı, hiçbir zaman netleşmiş bir tanıma ulaşmayan, sonu olmayan bir tartışmadır, özellikle de veri veya bilgi bağlamında. Günümüzde en geniş izleyici kitlelerinin dijital alanda güzelliği nasıl gördüğünü inceledim. Duyguların, fikirlerin, beden kıvrımlarının güzelliğine. Ağ üzerindeki pornografiye yönelik küresel, anonim ve kitlesel ilgi, işimde beni tek bir kişi için zevk ve güzellik üzerine yoğunlaşmaya itti. Vibratör dünyadaki en meşgul porno sunucusuna bağlı. En çok talep edilen video dizinlerinin izlenme oranındaki çoğalma veya azalmaya göre titreşiyor ve parlıyor. Dünyanın her yerinden kullanıcı kitlesinin anonim ilgisi, böylelikle kişisel bir nesnede toplanıyor.

"Beauty in art" is no doubt an endless discussion that never reaches a crystallized definition, even less so in the context of data or information. I looked at how the widest audience today is seeing beauty in digital space. The beauty of feelings, ideas, curves of bodies. Global, anonymous and mass interest in pornography on the network led me to concentrate in my work on the pleasure and beauty for one person. Vibrator is connected to the busiest porno server in the world. It vibrates and lights up based on the increases or decreases of the viewership of the most requested video sequences. The anonymous interest of the mass of users from the entire world is thus concentrated into an object for one.



AĞSOKAKSANATI / NETWORKSTREETART

PROKOP BARTONICEK

AğSokaksanatı projesi kamusal alanda etkileşimli bir iletişim kanalıdır. İnsanlar imgelerini ve videolarını, Bluetooth arayüzü aracılığıyla doğrudan mobil telefonlarından yükleyebiliyor. Medya dosyasını sisteme yolladıktan sonra sunucu, dosyaları AğSokaksanatı'nın istasyonu(ları) ile paylaşıyor. Kendi yerel istasyonunuza sahip olmak için uygulamayı proje web sitesinden indirip kendi hesabınızı yaratabillirsiniz.

NetworkStreetart project is an interactive communication channel in the public space. People can upload their images and videos directly from mobile devices via bluetooth interface. After sending media-file to the system, server shares the files to the station(s) of Network Streetart. To run your own local station, you can also download the application from the project website and create your account.



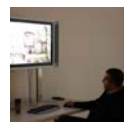
Networkstreetart.eu
tooth on "NSA
AVEA
EXTRA
MOBILE
AVEALI
OLMAYANLARA
İYİ DAVRANIN!
ber Festival / Istanbul
2010 16:49:12 / Karabela /

MACHINARIUM
JAKUB DVORSKY

Machinarium, Amanita Tasarım tarafından geliştirilmiş tıklamalı bir macera oyunu. Machinarium'un hedefi, zihin kurcalayıcı bir dizi bulmacayı çözmek. Machinarium, ona adını veren kentin en yüksek kulesinden bir boşaltım uçağını boşaltım yaparken gösteren kuşbakışı bir sahneyle açılıyor. Oyundaki karakter, Josef isimli bir robot ("robot" kelimesinin yaratıcısı Josef Čapek'ten esinlenerek verilmiş bir isim) bir çöp yığınının üstüne atılıyor ve orada parçalarını yeniden monte edip kente doğru yola çıkıyor. Hikayesini gözler önüne sermek için oynamaya başlamanız gerekiyor.

Machinarium is a point-and-click adventure game developed by Amanita Design. The goal of Machinarium is to solve a series of puzzles and brain teasers. Machinarium opens with an overview of the eponymous city as a disposal flier launches from its highest tower. The player character, a robot called Josef (named after Josef Čapek, the creator of the word "robot") is dumped on a scrapheap, where he re-assembles himself and sets off for the city. You should start playing to reveal his story.





BİR TÜR TIKANIKLIK / SOME KIND OF A CONGESTION

EMRAH KAVLAK

"Sohbet", "Sabır", "Kırmızı" temalarının işlendiği bu proje, çoklu ekranlar kullanarak kentle ilgili bir bilgilendirme ve inceleme/sorgulama alanı sunmayı hedefliyorr. İstanbul'un canlı trafik yoğunluğu verilerinden de yararlanarak, çeşitli görselleştirmeler bir arada gösterilecektir.

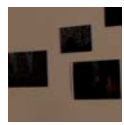
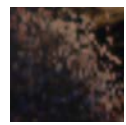
In this project, a multiple display setup that gets together themes such as "Conversation", "Patience", "Red", aims to offer a space for urban information and examination. Various visualizations that will be shown simultaneously will also make use of live traffic density data of Istanbul.


13 : 24
15°

SEYİR II / IN TRANSIT II
MURAT DURUSOY

Şehir manzarası görünümünün zamana yayılmış olarak nokta nokta tuvale geçirilmesine dayalı zaman-temelli bir yerleştirmedir. Sonunda şehir manzarasından sergi süresi içinde tuvale aktarılan verilerle, şehrin bir fotoğrafı oluşacak. Seyir II, sanatçının önceki işi "Seyir I/In Transit I" serisinin bir devamıdır.

This is a time-based installation in which an image of a city scape drawn on a canvas pixel by pixel over time. Everyday, at the end of the day, the one image of the cityscape will be completed on the canvas. This is a continuation of the artists' previous work Seyir I/In Transit I series.

LUNA PARK: İZLER, BELLEK, KLİŞELER, KÜRESELLEŞME/LUNAPARK: TRACES, MEMORY, STEREOTYPES, GLOBALISM

ARTSCENICO - BIS

6-7 KASIM/NOVEMBER 2010 20:00

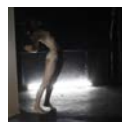
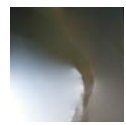
TALİMHANE TİYATROSU/THEATRE

HATIRALAR VE İZLER / MEMORIES AND TRACES

ANNA KONJETZKY - KATRIN SCHAFITEL - SAHRA HUBY

Eser, koreografın tarihsel iz ve hatıralarının yorumlanmasıyla başlıyor. Daha sonra iki dansçı, kentin ritmi, nabzı gibi bir yürüyüş üzerine çalışıyor.

The piece starts by an interpretation of the historical traces and memories of the choreographer then the two dancers work with walking which is like the rhythm, the pulsation of the city.

TEMİZ ELLER / CLEAN HANDS

ASLI SAĞLAM

Sanatçının performans boyunca üretip mekana astığı eldivenlerin üstünde kentlerde kaybolmuş "parça"ların basılı imgeleri var. Bu imgeler kişilere, geleneklere, yaşam biçimlerine veya yerlere ait olabiliyor.

The hand gloves which are hung over the space while the artist is producing them along the performance, have printed images of lost "items" from the cities, on them. These images can be of people, traditions, lifestyles or places.



CLIC-CLAC
BAHAR TEMİZ

"Clic-clac", Fransızcada açıldığında yatak olan kanepe anlamına gelir. Aynı zamanda, Temmuz ayında altı kişilik bir grup için tasarlanmış bir oyunun solo versiyonudur. Lila Saba adlı on dakikalik bu kısa oyunda, birbirinden zaman ve mekân kullanımı, yapı ve tür olarak farklı koreografik ögelerin, aynı anda, hiyerarşik bir dizin gözetilmeksizin, nasıl birarada bulunabile-cekleri üzerine çalışılmıştır. Tom Tykwer'in "Prenses ve Savaşçı"sı, Umberto Eco'nun "Kraliçe Loana'nın Gizemli Alevi", dans ve çizgi romanlar Lila Saba'ya kaynak oluşturmustur. Solo olarak tasarlanışının başlıca nedenleri ise, başkalarıyla çalışmanın zorluğu ile solo performansların koreografik getirileridir. Clic-clac'ı hiç izleyemeyeceğiniz bir filmin fragmanı olarak düşünebilirsiniz. Burada koreografi montajdan ibarettir (müzik: Bicycle Day, Luna).

Clic-clac stands for a pull sofa in French. It at the same time is the solo version of a play designed for a group of six in July. In this 10 minutes' short-play named Lila Saba, it is investigated how choreographic elements differing from each other in terms of the use of time and space, structure and type, simultaneously, without trying to protect a definite hierarchic structure can exist together. Tom Tykwer's "The Princess + The Warrior", Umberto Eco's "The Mysterious Flame of Queen Loana"as well as dance and comic books have been sources for Lila Saba. The reasons to adapt as a solo work is the difficulties of working with others and the advantages that come with solo performance. Clic-Clac is a fragment of a film that never can be watched. The choreography is the editing in this piece (music: Bicycle Day, Luna).



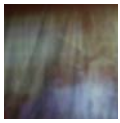
LUNAPARK

ROLF DENNEMANN - FRANK MÄHLEN

İstanbul, Dortmund ve Münih'te kaydedilmiş görüntülerin oluşturduğu bu filmde sanatçılar "izler, hafıza, klişeler ve küreselleşme" üzerinden şehirlerin ve hayatımızın bugününü yorumluyor.

In this film composed of images recorded in Istanbul, Dortmund and Munich, artists make an interpretation of the present status of cities and our lives over the concepts "traces, memory, stereotypes and globalization".



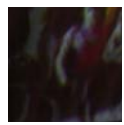
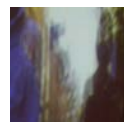


DEĞİŞEN/DEĞİŞMEYEN KENT YÜRÜYÜŞÜ / UN/CHANGING CITY WALK

ANITA BACIC

Kent efsanelerine göre her gün bir milyon kişi tarafındanarşınlanan Avrupa'nın en işlek sokaklarından İstiklal Caddesi'ndeki yürüyüşler-den esinlenen Değişen/Değişmeyen Kent Yürüyüşü, Stokholm, Manchester ve İstanbul'daki üç yaya bölgesinin sarmal bir karşılaşmasını yaratmak üzere birbirine bitiştirilmiş tekil açılar sunuyor. Kentteki bir yürüyüşü taklit eden izleyicinin hareketlerine bağlı olarak hızlanan veya yavaşlayan durağan görüntü-lerden oluşan iş, bizi etrafımızdaki dünyayı yeni bir bakış açısıyla değerlendirmeye ve görmeye davet ediyor.

Inspired by walks along Europe's bus-iest street, Istiklal Caddesi in Istanbul, which according to urban legends is traversed by a million people every single day, Un/changing City Walk offers single points of view stitched together to create an immersive encounter of three pedestrian precincts in Stockholm, Manchester and Istanbul. Constructed from still images that speed up or slow down in response to movements by the viewer mimicking a walk in the city, the work invites us to contemplate and see the world around us from a new perspective.

ATÖLYELER/WORKSHOPS

WORLD GRID LAB
MARLON SOLANAS

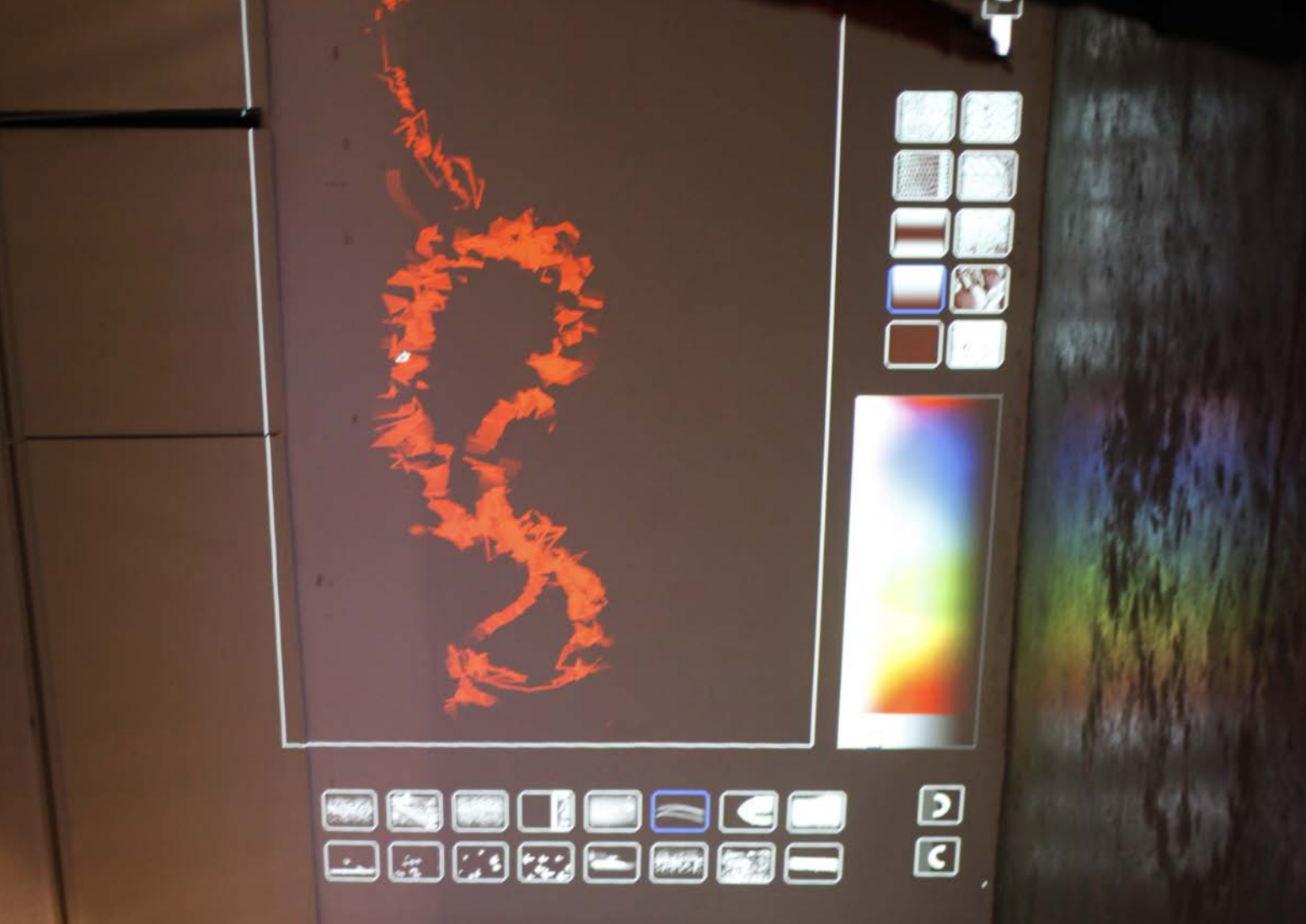
World Grid Lab (WGL), bir galeri mekanına, tiyatro lobisine veya başka sosyal bir mekana yayılmış bir festival alanını, yeni internet teknolojilerinin (Web 2.0) ve dijital hikaye anlatımının kullanımı üzerine deneylerin gerçekleştirileceği sanat etkinliği bağlamında küresel etki taşıyan etkileşimli bir laboratuvara dönüştürmek amacıyla özel olarak tasarlanmış seyyar bir açık stüdyo/atölye/yerleştirmedir. Web teknolojilerinin sosyal ağlar, video vloglama, mikro-bloglama, coğrafi etiketleme (geo-tagging), medya haritalama ve canlı video yayını gibi potansiyellerini, bilgi ve bilgi birikiminin üretim ve dağıtımı kapsamında araştırır.

WGL'nin katılımcıları, etkinliği en güncel internet teknolojileri ve ortak stratejilerle kateden dinamik sosyal bir medya üretim takımı haline gelir. Eşzamanlı olarak katılımcıların dijital okur-yazarlığı artar ve atölye onların katılımıyla zenginleşir. Bu sürdürülebilir alışverişle katılımcılar, seyirci geliştirme için sosyal medya üretiminin gücünü ve mekanların, sanatçıların, sanat biçimlerinin internet üzerindeki konumlandırmasını bir kaldıraç gibi kaldırmak üzere eğitim almış olurlar.

World Grid Lab (WGL) is an itinerant open studio/workshop/installation conceived specially to transform a festival hub (deployed in a gallery space, the theater lobby or social space) into an interactive lab for experiments on the use of new internet technologies (Web 2.0) and digital storytelling within the context of an art event and with global impact. The potential of web technologies such as social networking, video vlogging, micro-blogging, geo-tagging, media mapping and live video broadcasting is explored for information and knowledge production and distribution.

The participants of the WGL become a dynamic social media production team covering the event with the most up to date internet technologies and collaborative strategies. Simultaneously, increases the digital literacy of the participants and benefits from their participation and engagement. With this sustainable exchange, the participants are trained to leverage the power of social media production for audience development and internet positioning of the venues, artists and the art form.


WorldGrid



AÇIK DUVARLAR JUNIOR / OPEN WALLS JUNIOR
ISTANBUL 2010 + RUHR 2010
AKRYLONUMERIK COLLECTIVE

Bu atölyede İstanbul ve Ruhr 2010 kapsamında iki şehri birbirine bağlayacak orjinal çizim ve animasyon yazılımı LopARTHDTouch temelli "Açık Duvarlar Junior" özgün ağ yerleştirmesini tanıtacağız. Bu yerleştirme ile sanatçılar ve seyirci gerçek zamanlı ortak sanat işleri üreterek coğrafi, dilbilimsel ve kültürel sınırların ötesine geçme imkanı yakalar.

Ayrıca bu atölye, amber'10 süresince gerçekleşecek ortak üretim platformu "Cross Bridge" etkinliğine katılmak isteyen sanatçılar için de bir tanışma davetidir.

In this workshop we will present "The Open Walls Junior", a unique networked installation, based on the original drawing and animation software LopARTHDTouch connected between Istanbul 2010 and Ruhr 2010. This installation will allow the artists and the public to create in real time, common artworks beyond geographic linguistic and cultural barriers.

This workshop will be an invitation to the specific moments called "Cross Bridge" that will showcase artists creating a shared work on a common theme.

6 KASIM / NOVEMBER 2010, SANAT LİMANI

VIDEO HARITALAMA LABORATUVARI / VIDEO MAPPING LAB

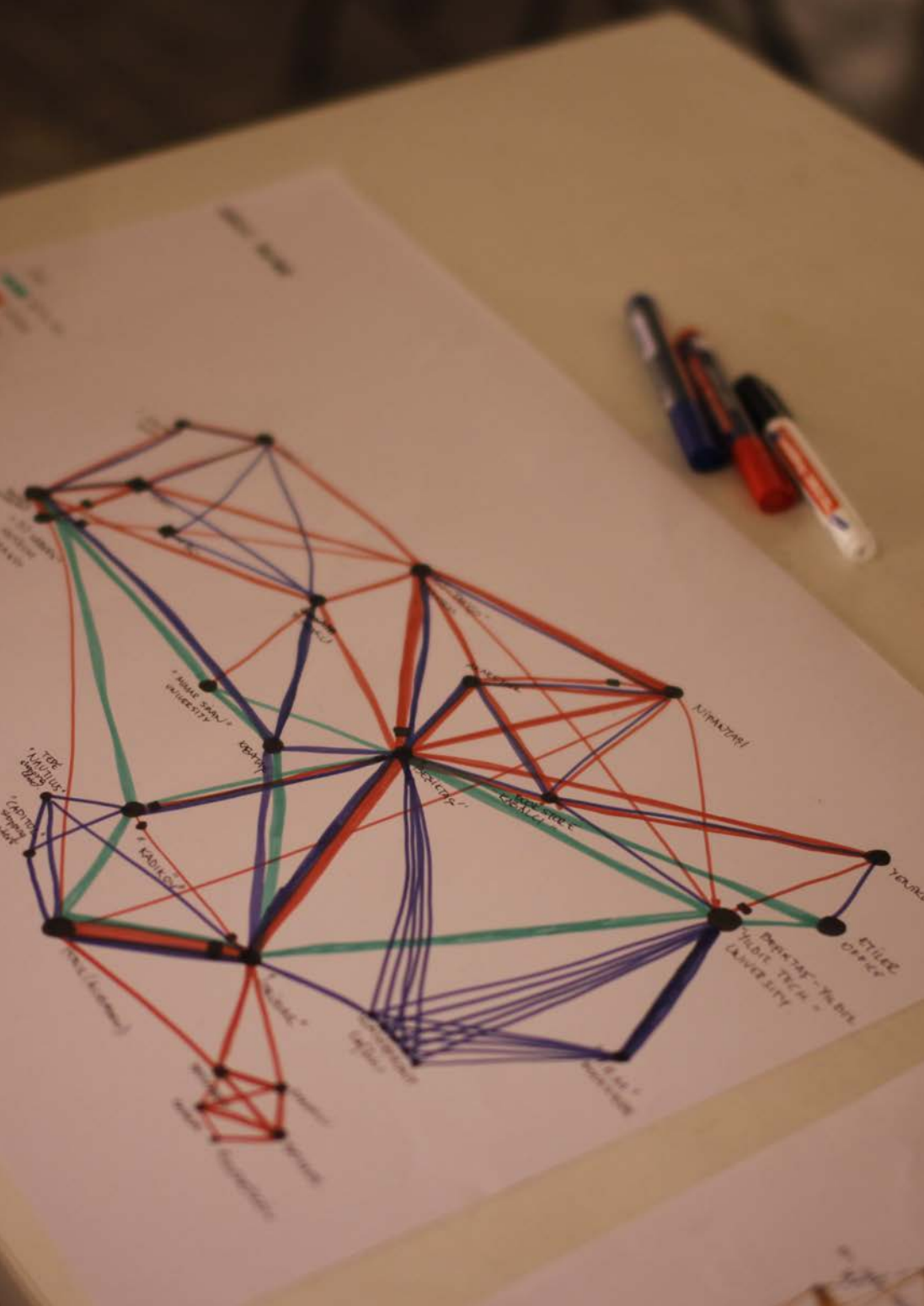
MARTIN BOVERHOF - KOEN VAN LIER (BORN DIGITAL), HÜSEYIN KURU, NOTABENE

Her geçen gün daha fazla screen media, mobil/cep telefonu teknolojileri ve aydınlatmalı ekranların veya cephelerin kuşatmasına maruz kalırken çevremizle eğlenceli ve anlamlı yollarla nasıl etkileşim içine girebiliriz? Biz, kentsel medyayı ticari amaçla veya genel malumat (hava durumu bültenleri, haber manşetleri vs.) amacıyla kullanmak yerine, gelecekteki çevremizin tasarlanmasında kullanılacak taze, estetik bir yaklaşımı kışkırtmak üzere ne tür sanatsal kavramlar keşfedebileceğimizi soruyoruz. Biz, fiziksel kentsel alanı (üzerine yansıtmak suretiyle) sadece bir ekran olarak kullanmak yerine, mimariyi ve çevreyi, içinde yaşadığımız yerlerle hayalini kurduğumuz yerler arasında eğlenceli bir etkileşimi kolaylaştıracak anlamlı arayüzler oluşturacak şekilde nasıl genişletebileceğimizi soruyoruz.

How can we interact in playful and meaningful ways with our environment when this becomes more and more occupied by screen media, mobile technology and illuminated displays or facades? Instead of utilizing urban media for commercial or general information interests (weather reports, news headlines etc.), we ask what artistic concepts we can invent to challenge the design of our future environment, with a fresh aesthetic approach. Instead of simply using the physical urban area as a screen (i.e. by projection onto it), we ask how to extend the architecture and environment to make meaningful interfaces which facilitate playful interaction between the places we live in and the spaces we imagine.

7-12 KASIM / NOVEMBER 2010, SANAT LİMANI





AĞ HARİTALAMA VE ANALİZİ ATÖLYESİ / NETWORK MAPPING AND ANALYSIS WORKSHOP

BURAK ARIKAN

Bu, haritalama ve görsel analiz yoluyla karmaşık ağlar tasarlama ve anlama üzerine iki günlük bir atölye çalışmasıdır. Katılımcılar temel alıştırmalardan başlayarak, adım adım karmaşık ağlar geliştirme üzerine çalışır. Şehirde ağ topolojisi, kent dinamikleri ve bilgi tasarımına ağırlık verilir. Katılımcılar gözlemleyerek, eskiz yaparak ve tartışmalara katılarak, öğrenir. İki günlük atölye Ağ Teorisi ve Temel Ağ Özellikleri ile başlayarak Merkeziyet ve Kümeleşme çalışması ile tamamlanır.

This is a two day workshop focusing on the design and understanding of complex networks through mapping and visual analysis. Starting with simple exercises, participants gradually build complex compositions. Emphasis is put on network topology in the city, urban dynamics and information design. Participants learn the most through observing, sketching and participating in the discussions. The workshop focuses on Network Theory and Basic Network Properties and continues with Centralization & Clustering on the second day.

6-7 KASIM / NOVEMBER 2010, SANAT LİMANI



"VERİKENT" GÖRSELLEŞTİRMELERİ İÇİN VVVV PLATFORMU ATÖLYESİ / VVVV PLATFORM FOR "DATACITY" VISUALIZATIONS WORKSHOP

ANDREJ BOLESLAVSKY

VVVV gerçek zamanlı video sentezi için bir araç kitidir. Fiziksel arayüzleri olan büyük medya ortamlarının, gerçek-zamanlı hareket grafiklerinin, eşzamanlı olarak birçok kullanıcıyla etkileşime girebilen işitsel ve videoların kullanımını kolaylaştırmak üzere tasarlanmıştır. Atölye sırasında sanatçılar ve tasarımcılar için geliştirilmiş bu güçlü aracın özelliklerini, etkileşim tasarımı prototiplemedeki ve etkileşimli yerleştirmelerdeki kullanımını keşfedeceğiz. Aynı zamanda VVVV ile meydana getirilmiş çeşitli sanat yapıtlarının ardındaki teknik ayrıntıları inceleyeceğiz.

VVVV atölyesi Küresel Geçit Projesi'nin etkinliklerinden biri olup, AB tarafından fonlanmıştır. Programın imtiyaz sahibi İstanbul 2010 Avrupa Kültür Başkenti'dir.

VVVV is a toolkit for real time video synthesis. It is designed to facilitate the handling of large media environments with physical interfaces, real-time motion graphics, audio and video that can interact with many users simultaneously. During the workshop we will discover possibilities of this powerful tool for the artists and designers, its use for interaction design prototyping and development of interactive installations. We will also explore technical details behind various artworks built with VVVV.

The VVVV workshop is part of Global Gateway Project activities and is funded by EU and Beneficiary of the program is Istanbul 2010 European Capital of Culture.

9-10 KASIM / NOVEMBER 2010, SANAT LİMANI



ALGILANABİLİR BEDENLER: PERFORMANS VE YERLEŞTİRMEDE YENİLİKÇİ VIDEO TEKNOLOJİLERİ / PERCEIVABLE BODIES: WORKSHOP FOR INNOVATIVE VIDEO TECHNOLOGIES IN PERFORMANCE AND INSTALLATION

FRIEDER WEISS

Atölye, video hareket algılama teknolojilerinin sanatsal kullanımı üzerine pratik bir giriştir. Frieder Weiss, sahne kullanımı için, genellikle dansçıların hareketini analiz etmek ve görselleştirmek için video kameralar kullanan kendi yazılımını geliştirir.

Atölye, Eyecon ve Kalypso yazılımlarını tanıtacaktır. Eyecon fiziksel hareket alanlarını bilgisayar kaynaklı ses ortamlarına bağlamaktadır. Ekrana sanal bölgeler çizerek insan hareketinin gerçek zamanlı ses ve görsel medyada haritalanmasına olanak sağlayabilirsiniz. Kalypso yazılımı, Chunky Move'un "Glow"unda yaratılana benzer şekilde, beden hatlarını temel alan görsel efektlerin üretilmesini mümkün kılmaktadır. Atölyede katılımcılar, yazılımın temelini anlayacak ve öğrenecek, isteğe uyarlanmış etkileşimli bir ortam kuracak ve hareket ederek bunu deneyimleme şansına sahip olacaklar.

The workshop gives a practical introduction into artistic uses of video motion sensing technologies. Frieder Weiss develops his own software for stage use, which mostly uses video cameras to analyse and visualize the movement of the dancers.

The workshop will introduce Eyecon and Kalypso software. Eyecon links physical movement spaces with computer generated sound environments. By drawing virtual zones on screen you enable the mapping of human movement to real time sound and visual media. Kalypso software allows visual effects based on body outlines; similar to what was created for Chunky Move's "Glow".

In the workshop participants will be able to understand and learn the basics of the software, set up a customized interactive environment and get a chance to move and try out the experience.

13 KASIM / NOVEMBER 2010, SANAT LİMANI

KONFERANS/CONFERENCE

amberKonferans'10

İstanbul Modern Sinema Salonu
4-7 Kasım 2010

FILM GÖSTERİMİ
4 Kasım 2010

11:00
SİBER SAVAŞLAR (AVATAR)
Yönetmen: Jian Hong Kuo
88'

13:00
GEN ÜRETİCİ, 2007
Yönetmen: Pearry Reginald Teo
96'

15:00
KOŞAN ADAM, 1987
Yönetmen: Paul Michael Glaser
101'

17:00
EYEBROGS, 2009
Yönetmen: Richard Clabaugh
102'

amberConference'10

İstanbul Modern Cinema Hall
4-7 November 2010

FILM SCREENING
4 November 2011

11:00
CYBER WARS (AVATAR), 2004
Director: Jian Hong Kuo
88'

13:00
THE GENE GENERATOR, 2007
Director: Pearry Reginald Teo
96'

15:00
THE RUNNING MAN, 1987
Director: Paul Michael Glaser
101'

17:00
EYEBROGS, 2009
Director: Richard Clabaugh
102'

amberKonferans'10

İstanbul Modern Sinema Salonu
4-7 Kasım 2010

ATÖLYELER
5 Kasım 2010

10:00 - 13:00
VERİ GÖRSELLEŞTİRME ve KENTSEL SİSTEMLER İÇİN CBS
Selim Balcısoy

14:00 - 17:00
LÖKATİF KONTURLAR, GERİDE KALAN VE BELGESEL EĞİLİMLERİ
Tina Bastajian, Seda Manavoğlu

amberConference'10

İstanbul Modern Cinema Hall
4-7 November 2010

WORKSHOPS
5 November 2011

11:00
DATA VISUALIZATION and GIS FOR URBAN SYSTEMS
Selim Balcısoy

13:00
LOCATIVE CONTOURS, RESIDUAL and DOCUMENTARY INCLINATIONS
THE GENE GENERATOR, 2007
Tina Bastajian, Seda Manavoğlu

amberKonferans'10

İstanbul Modern Sinema Salonu
4-7 Kasım 2010

KONFERANS PANELLERİ
6 Kasım 2010

10:00 - 11:00
Tema Konuşması
"ORTAM KENTTE GÜNLÜK HAYAT"
Kazys Varnelis

11:15 - 12:45
Panel 1: Haritalama, Arayüz ve Şehir
"KENTİN DİJİTAL ÜSTYAPISI VE KÜRESEL ENFORMASYONUN GELIŞIM SÜRECI"
Marco Cesario, Lena Hopsch
"DİJİTAL ÇAĞDA KENTSEL SIRADANLIK VE TESADÜF - BAKI KALAN ŞEHIR HARITASI"
Sean Kearney
"DYSTOPIA ÖTESINDE KENTSEL MEKAN: SIBERRPUNK KENT PARÇALARI"
Bengi Başaran

13:45 - 15:15
Panel 2: Oryantasyon ve Kent
"GPS CIHAZLARININ KENT DENEYİMİNDEKİ ETKİSİ"
Deniz Yatağan, Burcu Bostancı
"PSİKOCOĞRAFYAYI UNUT: KOZMOPOLİTİK OLARAK LÖKATİF MEDYA"
Marc Tuters
"JEOKENT MOBİL - KENTSEL VERİ ile ETKİLEŞİM İÇİN ARAYÜZ"
Roland Haring

15:30 - 17:00
Panel 3: Algılar ve Kent
İŞITME VE SESLE YENI KENT ALGISI
Matteo Marangoni, Eva Kekou
"KENTIN RITMI"
Varvara Guljaajaeva, Mar Canet Sola
"PERİPATO TELEMATİKOS"
Greg Giannesen

amberConference'10

İstanbul Modern Cinema Hall
4-7 November 2010

CONFERENCE PANELS
6 November 2011

10:00 - 11:00
Keynote
"EVERYDAY LIFE in THE AMBIENT CITY"
Kazys Varnelis

11:15-12:45
Panel 1: Mapping, Interface, and the City
"THE DIGITAL SUPERSTRUCTURE OF THE CITY AT THE AGE OF THE GLOBAL INFORMATION PROCESSES"
Marco Cesario, Lena Hopsch.
"URBAN MUNDANE & SERENDIPITY IN THE DIGITAL AGE – REIMAGINING THE CITY MAP"
Sean Kearney
"URBAN SPACE BEYOND DYSTOPIA: FRAGMENTS OF CYBERPUNK CITIES"
Bengi Başaran

13:45- 15:15
Panel 2: Orientation and the City
"THE IMPACT OF GPS DEVICES ON THE EXPERIENCE OF THE CITY"
Deniz Yatağan, Burcu Bostancı
"FORGET PSYCHOGEOGRAPHY: LOCATIVE MEDIA AS COSMOPOLITICS"
Mark Tuters
"GEOCITY MOBILE - A NOVEL INTERFACE FOR INTERACTING WITH URBAN DATA"
Roland Harring

15:30-17:00
Panel three: Senses and the City
"A NEW SENSE OF CITY THROUGH HEARING AND SOUND".
Matteo Marangoni, Eva Kekou
"THE RHYTHM OF CITY"
Varvara Guljajeva, Mar Canet Sola.
"PERIPATO TELEMATIKOS"
Greg Giannesen

amberKonferans'10

İstanbul Modern Sinema Salonu
4-7 Kasım 2010

KONFERANS PANELLERİ
7 Kasım 2010

10:00 - 11:00
Tema Konuşması
"EDEN REDUX'UN BAHÇELERİ - AKILLI KENTLER"
C.J. Lim

11:15 - 12:45
Panel 4: Tasarım, Veri ve Kent
"İSTANBUL IÇIN TASAVVUR EDILEN BILGI: KENTIN KULLANILABILIRLIĞINI ARTTIRMAK IÇIN KENTSEL GÖRSEL ARAYÜZ OLARAK REHBER TASARIMI ÇALIŞMASI"
Emrah Kavalak
Marco Cesario, Lena Hopsch
"ARAYÜZ VE ÇALIŞMA ALANI OLARAK KENT"
Georg Russegger
"GEOCITY MOBILE: KENTSEL SÖYLEVLERIN SINIRLARINI GENİŞLETME"
Horst Hörtner
"MIMARI VE VIDEO : MEDYA /KENTSEL EKRANLAR"
Silvia Kacic

13:45 - 15:15
Panel 5: Veri, Mevcudiyet ve Kent
"OPAK MEVCUDIYET - GIZLI KENTSEL GÖRÜNMEZLIKLER"
Knowbotic Research
HARIÇ TUTULAN VERILERIN TERCÜMANLARI: TANINMAYANI ESTETIKLEŞTIRME VE DENEYSELLEŞTIRME
Ebru Yetişkin

15:30 - 17:00
Özel Panel

17:00 - 17:30
Tartışma

amberConference'10

Istanbul Modern Cinema Hall
4-7 November 2010

CONFERENCE PANELS
7 November 2011

10:00 - 11:00
Keynote
"THE GARDEN OF EDEN REDUX – SMART-CITIES"
C.J. Lim

11:15-12:45
Panel 4: Design, Data, and the City
" ENVISIONING INFORMATION FOR ISTANBUL: THE STUDY OF A GUIDE DESIGN AS AN URBAN VISUAL INTERFACE TO IMPROVE USABILITY OF THE CITY"
Emrah Kavalak
"THE CITY AS INTERFACE/WORKSPACE"
Georg Russegger
"GEOCITY MOBILE: EXTENDING BOUNDARIES OF URBAN DISCOURSE"
Horst Hörtner
"ARCHITECTURE AND VIDEO. MEDIA/FACADES"
Silvia Kalcic

13:45 - 14:45
Panel 5: Data, Presence, and the City
"OPAQUE PRESENCE – LATENT URBAN INVISIBILITIES"
Knowbotic Research
"TRANSLATORS OF DATA TO BE EXCLUDED: AESTHETICIZATION AND EMPIRICIZATION OF THE 'UNRECOGNIZED"
Ebru Yetiskin

15:30 - 17:00
Special Panel

17:00 - 17:30
General Discussion

amber'10

sanat ve teknoloji festivali
art and technology festival

İstanbul 2010 AVRUPA KÜLTÜR BAŞKENTİ

VERİKENT/DATACITY
5-14 KASIM/NOVEMBER 2010
SANAT LİMANI - ANTREPO 5

HTTP://WWW.AMBERFESTIVAL.ORG | HTTP://WWW.AMBERPLATFORM.ORG

amberKonferans/Conference
4-7 KASIM/NOVEMBER 2010
İSTANBUL MODERN SİNEMA/CINEMA

proceedings

amberKonferans'10

verikent

amberConference'10

datacity

Index

Introduction

Zeynep Gündüz, Nafiz Aksehirlioglu

The papers in this volume reflect the debates that progressed during amberconference 2010 entitled "Datacity", held at Istanbul Modern in Istanbul. They address the ever-increasing role of digital technologies in the social life and administration of cities in various forms and functions. They examine how the city and its data are now heavily implicated in each other from aesthetic, technological, political, economic and sociological angles. They raise questions on what the new urban reality under the reign of data can be and how data can be understood in the context of the city.

The various topics covered by this volume range from GPS systems and orientation in the city, the sensorial impact of informational processes, urban structures of cyberpunk cities, the city as an urban visual interface, the exclusion of certain aesthetics in the translation of data, to the relationship between (physical) presence, data, and the city.

This e-book consists of twelve papers organized into three parts and a separate paper given by the keynote speaker CJ Lim:
Keynote paper: "The Garden of Eden Redux - Smartcities"
PART I: Mapping, Interface, and the City;
PART II: Senses and the City;
PART III: Design, Presence, and the City.

Keynote speaker CJ Lim's paper is a manifestation for "Smartcity", a reintegration of cultivated land within an urban economical and ecological context and the establishment of the city-dwelling farmer. Lim argues that Smartcity has many benefits as far as food immediacy, nutrition, health benefits, job opportunities, incomes for urban poverty groups and providing a social safety net concerns.

The papers in the first part of this e-book focus on the relationship between mapping, interface, and the city. In "The digital superstructure of the city at the age of the global information processes", Marco Cesario and Lena Hopsch examine the spatial experience of the city connected with global information processes from philosophical and architectural perspectives. Sean Kearney in "Urban Mundane & Serendipity in the Digital Age: Reimagining the City Map" takes as his starting point a number of standard facets that play a role in the understanding of schematic maps, such as surroundings, geography, relief, congestion, volume and density. He offers an alternative mapping system in which extra media layers are introduced, a mapping system based on "creating linked data from the transient

visual environment". In "The impact of GPS Devices on the experience of the city", Burcu Bostanci and Deniz Yatagan discuss the effects of GPS navigational systems on our relationship with our urban environment. Using an experiment with two 'control' groups in Istanbul as a case study, in this paper, Bostanci and Yatagan problematize GPS system's influence on memory and navigation in space. Bengi Basaran in "Urban Space Beyond Dystopia: Fragments of Cyberpunk Cities" presents examples of films influenced by the Cyberpunk movement and opposing the technological optimism of the futurist movement.

Part two considers papers that discuss the relationship between the senses and the technologies that are in and around the city. Eva Kekou and Matteo Marangoni examine the influence of sound on our perception and experience of the city in their paper entitled "A new Sense of City through Hearing and Sound". In "Rhythm of City" Varvara Guljajeva and Mar Canet Sola introduce an approach for the interpretation and usage of geo-located social data based on their real-time art project. This project translates geo-tagged content of certain cities into certain rhythms by means of a physical metronome. Ebru Yetiskin in "Translators of Data to be excluded: aestheticization and Empiricization of the 'Unrecognized'" argues that the production of data involves the performance of translation as a process, which she illustrates through certain new media artworks in her paper.

The focus in part three is on the interlacing of design, data, and the city. In "Envisioning information for Istanbul: the study of a guide design as an urban visual interface to improve usability of the city", Emrah Kavlak presents a design that would allow Istanbulites to better understand their city. The authors of "GeoCity Mobile: Extending boundaries of Urban Discourse", a joint paper by members working at Ars Electronica, describe an idea similar to Kavlak's. They describe a novel system for "presenting data related in a city in an intuitive and metaphorical way" based on statistical and real-time information of a city. The final paper in this section presents a criticism to the 'hype' of datacity. In "City as Interface", Georg Russeger argues that cities have already turned into enriched media dispositions" and that artists and art projects have made a great contribution in this transformation.

Keynote Paper: The Garden of Eden Redux

Smartcities

C.J. Lim
c.j.lim@ucl.ac.uk

'And the LORD God made all kinds of trees grow out of the ground – trees that were pleasing to the eye and good for food.' - Genesis 2:9

'And the LORD God commanded the man, "You are free to eat from any tree in the garden…"' - Genesis 2:16

Adam and Eve did not have to go far for sustenance, for everything was aplenty in the Garden of Eden, where every type of tree, pleasing to the eye and good for food was planted. However, at the time of writing, we are simultaneously experiencing a global food crisis resulting from low productivity, government policies diverting food crops to the creation of biofuels, climate change, and intensifying demands from an exponentially expanding population. Some 3.3 billion people are now living in urban areas. By 2030, this is expected to swell to almost 5 billion. Cities are calling out for a new formal, textural and sustainable co-existence with nature - the Smartcity.

Figure 1. Smartcity – Grocery shopping in New York's Central Park; Car boot allotments in Detroit

What is a Smartcity? The Smartcity is not a creation from blank slate, but an evolution of long-standing sustainable principles that intertwine with contemporary desires for a healthier physical, mental and social existence in an increasingly alienating world. It aims to preserve and enhance natural and cultural resources, expand the range of eco-transportation, employment and housing choice and values long-term regional sustainability over short-term focus. The currency of an 'eco-' prefix has become devalued through overuse and abuse, and 'sustainability' is a blanket expression –

clearly, some aspects of our lifestyle are worth sustaining and others are not. Deciding and acting on which category they fall into, however, is not as straightforward as it appears. Conservation of energy and the environment are key priorities, but so too is the conservation of heritage, tradition, and human interaction. Each generation is the proprietor of its own values, and the current zeitgeist has reacted against the mass-produced and anodyne, whether in the guise of housing, jobs and clothing or fruit and vegetables. Without ignoring technological advances, the Smartcity embraces leanness and the lo-tech by adopting an operating system that filters out excess and reboots our social space. Smartcity living does not ask for 'more' but determines how to use less in the creation of a healthier mental and physical existence.

Figure 2. Urban farming in Taipei

A central component of the Smartcity is urban agriculture and the establishment of an ecological symbiosis between nature and built form. The hybridization of agriculture and urban fabric can lead to a symbiotic association, reducing carbon emissions and food shortages in addition to providing less tangible but equally significant environmental and social benefits. The implementation of urban agriculture - the cultivation, processing and distribution of food within the city - would have the two-fold effect of making these processes transparent and offer a means for the re-establishment of food and its production as a social relationship rather than commodity. It will mean an end to a nonsensical boomerang trade that sees the UK importing 22,000 tonnes of potatoes from Egypt and exporting 27,000 tonnes in the other direction.

Urban agriculture is not a new phenomenon; its popularity and adoption has waxed and waned over the millennia, from the recycling of urban wastes and qanat tunnel irrigation networks in Ancient Persia for agriculture, to the stepped cities and farming terraces of Machu Picchu that can be considered as a precursor to hydroponics. In more recent times, victory gardens during the two world wars were employed to alleviate food shortages with rooftops, balconies, pontoons and public parks appropriated for the food production. In a remarkably ambitious programme, gardening classes, literature, seeds, fertilizer and committees were organised, yielding over half a billion dollars worth of war-garden crops at the end of the First World War in America alone . Today, the enduring arcadian dream

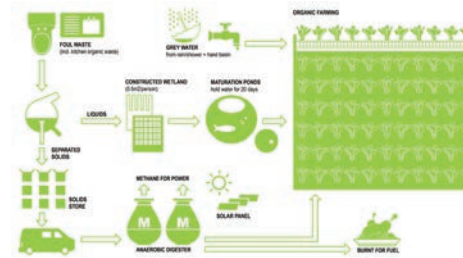


Figure 3. The perpetual motion machine channels urban waste back into farming

of green space and growing food for oneself can be found in the allotment, a land reform system that has taken the form of the American community garden, the Russian dacha, the French jardin familial, the Dutch Volkstuin and the Danish Kolonihave. Growing one's own food in Russia is a long-established tradition, among the affluent and underprivileged alike. In Germany, according to the concept of granting, there is the kleingärten, the schrebergärten, kolonie, parzelle, armengärten, sozialgärten, arbeitergärten, rotkreuzgärten and eisenbahnergärten. Perhaps most noteworthy is the intercultural garden, a project of the German Association of International Gardens that aims to improve racial integration and promote intercultural interaction.

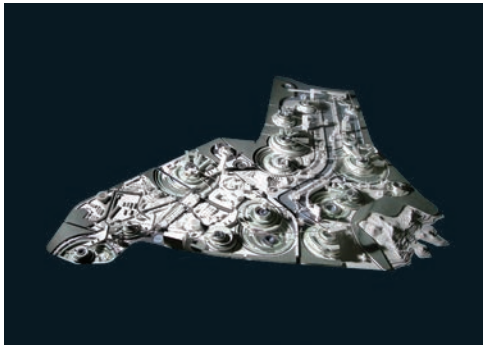


Figure 4. Guangming Smartcity, China

The sites for Smartcity systems vary in scale, geography, culture and time, consequently requiring adaptation according to context. The concept of terroir – the climate, topography, soil conditions and aspect of a piece of land for the production of wine, is equally applicable to the cultivation of edible produce, renewable energy and communities, with the additional region-specific variables of politics, land ownership, extant infrastructure and cultural bias. At a macro level, the entire city becomes the site for a new urban land use - farming. Its location takes advantage of favourable adjacencies between agricultural processes and their raw materials, establishing a classic urban nutrient cycle. Urban solid waste and greywater can be used as fertilizer and irrigation; food transport and associated carbon emissions are removed from the equation.

Due to the high premium of land in dense urban areas, urban agriculture is considered to be unfeasible within cities. The artist Agnes Denes eloquently articulated the disparity of land value in her installation 'Wheatfield: a confrontation' in which she planted a golden field of wheat amongst the gleaming skyscrapers of downtown Manhattan. In the autumn of 1982, Denes harvested her crop that had a value of US$93 on land valued at US$4.5bn. The piece was intended to 'call attention to our misplaced priorities and deteriorating human values '.
William Morris' new world idyll in his utopian novel, News from Nowhere, and Denes' visceral commentary owe their potency to the striking juxtaposition of the pastoral and urban, demonstrating how scale and context can effect beauty. A cabbage or wheat patch is not as conventionally beautiful as daffodils or tulips, but when scaled up, replicated a thousand fold, reconfigured into vertical surfaces or arrayed into pattern - in short curated - they can achieve the elegance of multi-sensory art and expand the limited palette of urban textures. In the Smartcity, buildings and roofscapes will transform in colour, volume, and scent

through the seasons. Morris' answer to the critics of his socialist vision, who argue that individuals will lack the incentive to work in a world where private property is abolished, is that work should be creative and pleasurable. In European cities where waiting lists for allotments number up to 40 years, widespread cultivation of the metropolis offers a way to disintegrate orthodox distinctions between work, leisure and art.

Urban agriculture provides an overdue mediation between the countryside and city, making possible a circular economy – the solid organic waste of city dwellers can be alchemically transformed via anaerobic digestion into gaseous energy and fertilizing digestate; grey and black-water from showers, sinks and gutters can be treated and re-channelled to irrigate our crops provided they are in close enough proximity. With the added ingredient of sunlight, we have food from a living grocery store to propel another cycle of the human perpetual motion machine. Within dense urban areas, rooftops, windowsills, balconies and walls can be appropriated for the growth of edible crops, evoking the spirit of the World War II victory garden.

With the support of government policy, the public realm could be fully reclaimed - plazas, parks, waterfronts, boats, car parks and greyfield sites where appropriate sunlight levels are available are all viable locations. The metrics of progress will be clearly manifest, growing before our eyes while beautifying our environment.

In the case of the new city, the scope for more comprehensive Smartcity intervention is possible. New housing developments can be planned to integrate farming at the scale of landscape; buildings can be used to terraform the natural topography, be surfaced in growing media, oriented to receive or protect from sunlight, and integrate water conservation, inter-seasonal heat transfer and waste recycling mechanisms. In Studio 8 Architects' Guangming Smartcity in China, the city is arranged into optimally sized clusters of housing and farming suburb-terraces. The stepped arrangement improves solar angle for natural lighting within the apartment buildings; natural cross ventilation is possible and the distances between buildings can be reduced to increase housing density without adverse overshadowing. Most significantly, the terracing creates level rooftop surfaces that can be used for farming without fear of erosion and slippage, resulting in a symbiotic spatial connection between mass housing and arable land. Beneath the hydroponic growing roof membrane, a gravel substrate is used to clean household water. The city consequently integrates the three functions of shelter, water purification, and crop cultivation into the same space in addition to improving thermal insulation and surface water retention.

The notion that the efficiencies achieved through technology and good design results in increased unemployment is a fallacy - the logical corollary of improved efficiency is increased productivity. In this technologically advanced age we live in, there are shortages in food, shortages of basic living standards, shortages of education and literacy. There should be no shortages of jobs. The Smartcity programme comes with a host of fresh employment opportunities that are cross-sector and require a range of skills in the renewable energy, recycling, agriculture, construction and transportation industries. The business case for 'greening' the economy is robust. A UN report on green jobs indicates that with energy and commodity costs soaring and growing pressure to adopt greener practices,

the global market for environmental products and services is projected to double from $1,370 billion per year at present to $2,740 billion by 2020. Half of this market is based in energy efficiency and the balance in sustainable transport, water supply, sanitation and waste management. The potential for improving labour markets is greatest in developing nations, where over 40% of the global workforce and their dependants are condemned to a life in poverty and insecurity .

China is currently struggling with the problem of increasing the efficiency of its agricultural production whilst finding employment for a vast number of rural migrants in cities already suffering from high unemployment rates. Within the next three decades, it intends to reduce its farm employment to 10 percent of the labour force. In the long-term, the influx of new urban dwellers will create a new market for goods and services in the city, boosting employment and the country's GDP. In the short-term, the erstwhile farmers lack the skills required for working in an urban environment, have been cut off from their social infrastructure, and are discriminated against by established city dwellers. The hybridization of city and arable land in Guangming Smartcity offers an interim solution by allowing farmers to retain their land, and by extension their social insurance that they do not receive if they work in cities, whilst offering opportunities to train in new employment sectors. Part-time farming becomes viable, and the city's diversification into high-end and high-yield agriculture presents an alternative career route, maintaining both a connection with the soil and financial parity with other vocations.

Skid Row, in Los Angeles, home to one of the largest homeless populations in the United States, is one of the recent beneficiaries of Urban Farming, a Detroit-based non-profit organization dedicated to eradicating hunger founded by the singer, Taja Sevelle. Urban Farming have installed a series of 30-foot long walls, each containing 4,000 plants to supply the area's dispossessed with tomatoes, spinach, peppers, lettuce and leeks and herbs. Just as significantly, the programme has drawn together diverse and disadvantaged members of the community of all ages and ethnicities as well as providing an opportunity to learn new skills and reducing local crime.

Food is a universal. It is cross-cultural, cross-gender, cross-class and cross-generational. As a key prerequisite for survival, food is the great democratiser that defines our society and is an essential element of Smartcity living. Claude Lévi-Strauss, the French anthropologist, makes the point that culinary rites are not innate but learned ; the human digestive system is able to process almost any organic material, and the distinction of what is edible and what is not is a cultural convention. Food, as a social medium, communicates a veritable smorgasbord of meaning, from Eucharistic sacrament in the Christian church and religious separation in kosher law to etiquette in the formal dining room, celebration on feast days, societal responsibility in soup kitchens and protest in hunger strikes. Living food in the city fulfills a yearning for the haptic and tangible as well as the digital, presenting a city framework that engages people rather than automata. The vegetable walls of the Urban

Farming Project are an example of spatial phenomenology in the city, stimulating our eyes, ears, noses, minds and tongues - imagination made real, social capital that you can taste.

Food is but one common ground between disparate communities. Housing, transport, water, heating, electricity, sewerage, waste treatment and data services are all or are all becoming basic necessities of urban existence, making them ideal sites for the creation of new social capital. Legislation requiring mixed housing tenures and a minimum provision of affordable housing in new developments is a step forward. The Smartcity takes this idea further through the banishment of the private motorcar and the widespread use of community-tailored and community-owned multi-utility service companies (MUSCOs). Where the provision of energy, water and waste treatment are not solely state controlled, MUSCO arrangements operating entirely transparently can return excess profits to the city in the form of lower consumer bills or capital injection into other community projects.

The Smartcity thinks more in terms of inhabitable wind farms and photovoltaic parks rather than tower blocks with token microturbines and solar cells. The willful formalism of amorphous icon buildings favoured by marquee-name architects has shown that complex geometric forms are realizable using generative tooling software. There is no compelling reason why prodigious design skills and cutting-edge technology could not be channelled into developing clean energy morphology.

The deployment of agricultural and energy generation systems within urban environments is only part of the story. Much criticism has been levelled at planned communities, from Levittown in the United States to the three waves of post-war New Towns in the UK and the ongoing Thames Gateway project. The Thames Gateway is Europe's largest regeneration programme, and there are recurring concerns that the result will be a concentration of 'Stepford Suburbias' and 'Noddy Towns'. Many of the perceived failures of Levittown and Milton Keynes can be attributed to the hegemony of the motorcar and the lack of opportunities for unskilled and lower income workers. These new towns were self-financing and whilst this rendered the large-scale development programme possible, any pioneering visions for an urban future were of necessity watered down to pander to the public's demand for private transportation. Vehicular–pedestrian separation remains vastly unpopular amongst Britons and Americans, stymieing the reification of truly sustainable urban environments.

The transcription of a new city from paper to lived reality usually ignores the genius loci, the distinctive atmosphere of a location. Established European metropolises such as London, with their rich variegated histories have become richly textured palimpsests, as extensively described by the urban chroniclers, Peter Ackroyd and Ian Sinclair. Planned communities, however, do not have the luxuries of having identities developed and nurtured over the passage of time. The same problems are faced by urban localities that suffer from social and economic deprivation, usually as a consequence of an anachronistic industrial heritage. In essence a mega-community, the city is a network of living systems that mutates or atrophies and dies.

Whether formed tabula rasa on an undeveloped site or integrated within an established metropolis, the Smartcity seeks to

preserve the identity and the heritage of a place, ascribing as much importance to the past as the future. Traditionally, the character and industry of a settlement arose from the geographical uniqueness of the earth under and around it, whether it be from the geothermal springs of England's Bath Spa and onsen all over the volcanic region of Japan or the mining towns of Central Illinois, South western Pennsylvania, and West Virginia in the United States that resulted in railroad development across the continent. Similarly, viticulture in the Wine Country of Northern California that includes Sonoma County and Napa Valley came about from the unique variety of climate and soil conditions of the region, generating a form of employment, tourism and culture.

Where regeneration frameworks and environmental protocols must be global in scope, communities emerge at grass roots level, and crucial to the growth of Smartcities is a devolution of power to local representatives at the front line who are better placed to allocate resources and evaluate need than profligate high-level quangos. Social capital is formed at a human scale between individuals, and local structures need to be in place to enfranchise the disenfranchised and affect the disaffected.

The panacea to a deleterious food industry is to replace damaging large-scale monoculture with larger numbers of smaller mutually supporting diverse permacultures. Communities share much in common with agriculture, and one can show the way forward for the other.

Mapping, Interface and the City

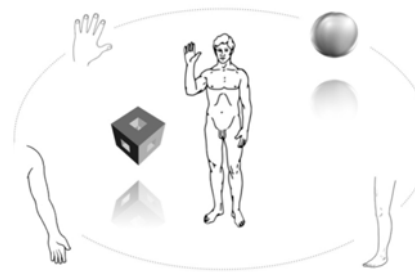
Digital Superstructure of the City at the Age of the Global Information processes

Marco Cesario, PhD Candidate, Laboratoire GERPHAU (ENSA - Université Paris VIII) Ecole Doctorale de Philosophie 'Pratique et Théories du Sens', Paris, France
Lena Hopsch, PhD, Senior Lecturer, Chalmers University of Technology, department of Architecture, Gothenburg, Sweden
marcocesario@gmail.com

This paper explores the spatial experience of the city connected with global information processes. The aim of this paper is to examine both the philosophical and architectural side of the problem.

INTRODUCTION: BODY SCHEMA, BODY IMAGE AND THE DATACITY

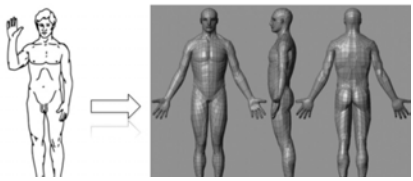
We start our reflection from a crucial question: when we connect ourselves to a 'datacity' do we extend the body schema, that is to say the virtual image and conceptualization of our own physical bodies? When discussing body spatiality in The Phenomenology of Perception, Merleau-Ponty points out that my body's parts are not simply a collection of points. My arm, my hands form a system with the external objects which are included in human's body schema. From this point of view, the body is 'an attitude in view of a present or possible task' and space is the means for this possibility. The Austrian psychiatrist, and psychoanalyst Paul Ferdinand Schilder introduced the concept of body schema which he defines as the immediate experience that there is a unity of the body. When talking about the motility of the body in space, we relate to a body schema because it involves a system of motor capacities, abilities, and habits that enable movement and the maintenance of posture. Instead, when analysing the expansion of the body in a virtual context - which is the datacity - we should talk about an expansion of our body image because it does not relate to a simple expansion of our 'motor capabilities' but it introduces major changes in the perception of our inner-time/space consciousness. »The body image is infact a complex set of intentional states-perceptions, mental representations, beliefs, and attitudes in which the intentional object of such states is one's own body ».



ARCHITECTURE AND EMBODIED CONSCIOUSNESS

Every space, even the barest, has an architectural configuration. Space of living, of

Schilder's Körperschema (1923)



reflection and interpretation of the real through the experience of our body in space. When travelling in the metro or sitting in a terrace, we are immersed in an architectural context whose perspectives can change according to my position and point of view. Even when we are in an airplane, we are not 'flying in the air' but we are specifically inside a moving structure bringing us from one structure (the departure hub) to another (the arrival hub). This form of spatiality is not a spatiality of position but a spatiality of situation, that is to say the situation of the body in the face of its tasks. We experience the movement in space through the geometry and solidity of the different types of architectures. The limits imposed by geometrical rules (angles, arches, curves, perpendicularities) engage human bodily consciousness and motility power. We claim that our naïve and intuitive link to the world takes root in the space through an embodied consciousness which is, from its very beginning, motile/spatial. According to Merleau-Ponty, space is not the real or the logical ambit within which things are placed, but the environment by which the position of things becomes possible . From this point of view, space would not be a sort of 'ether' in which things are suspended but - as Merleau-Ponty emphasizes – the universal power of their connections. I can stand between objects and consider space as their natural ambit or simply as their common attribute. But I can grasp the nature of space as from a subject and its interiority, even if prior to me, space exists only in relation to a perceiving subject.

Open and closed spaces seem to be conceived to convey a certain spatial and perceptive experience. The architectural environment can refine sensibility and enlarge consciousness by exploiting the multiple possibilities of human perception and motility. Involved in an urban environment, my body immediately knows, without any prior knowledge, how to move and act in it because space is the counterpart of human motility. My body is directly involved in an architectural context which is the counterpart of my being-in-the-world. In the hall of a building, its stairs seem to be conceived to experience body's motor faculties. The flow of my movement follows the architectural structures and changes progressively its position according to my new point of view. When I move forward, the buildings in my limited vision move in the opposite direction. They progressively 'return' in a sort of

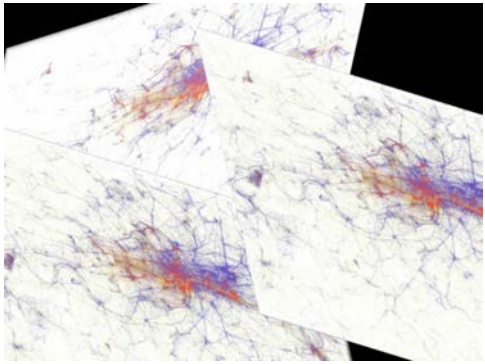
limbo of invisibility while my sight is focusing a precise point in the space.

THE DIGITAL TOPOGRAPHY OF CONTEMPORARY CITIES

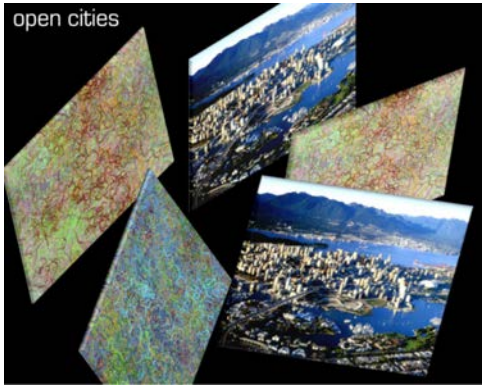
We cannot escape nowadays the context of architecture because we are surrounded by its texture. Our life takes place in its open and closed structures, even open spaces are measured by mind geometrically. Architecture is definitely the concrete expression of our being-in-the-world. With the proliferation of world-cities like London, New York, Mexico City or Hong Kong, even if we are at the countryside, our distance from the city cannot be measured in spatial terms but in temporal distance - time to get to the nearest city and access its multiple services, supermarkets, banks, shopping centres, city halls or wireless network points. We are merely urban beings and we bring our urban nature everywhere, even in the forest. Today the city is the fulcrum of our social, political and biological life. The city has become the centre of an endless data flow moving from one point to another designing an invisible structure of data inside the

solid and geometrical urban structure.

Thanks to the progressive digitalization of global information, an enormous amount of data has become accessible inside urban spaces. In most of our capitals cafés, museums, city halls, arts centres, theatres, stations, ports, airports, offices and all kind of public buildings provide wireless connections, Internet points, general info tactile screens, computers, Intranet networks and other multiple services for users. Virtually with laptops, i-Pads, smart-phones and sometimes even without any instrument but simply getting in one of those sites, we can easily access and exchange a great amount of information produced and carried out by the datacity. The first reflex before going to visit the British Museum or the MOMA is to connect a laptop to the Internet, type on Google the name of the museum and find out information on how to get



there. The software Transit on Google Maps is conceived to integrate transit stop, route, schedule, and fare information to make trip plannings. In this case the spatial distance between my body and the museum is previously visualized and virtually covered through another network which is not yet streets, buses, underground but the virtual city available and practicable on Google Earth. Inside the city, a connecting structure made by different hubs of data produces an enormous amount of information. We can virtually access to our private business any sort of social communication from every point of the city. All those services of could

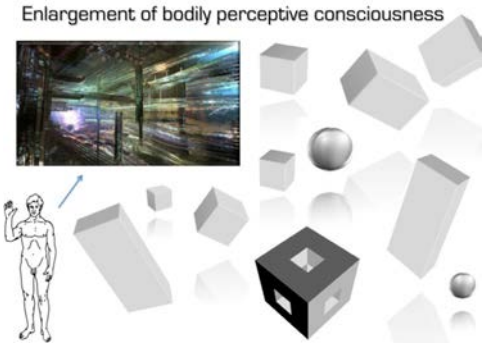


of course be provided also at the countryside, but the main hub of global information processes remains the city because its correspondent superstructure, the datacity - composed by its multiple services and accessible points, by internet users and other virtual actors – produces a constant and exchanging amount of information with other cities/datacities.

OPEN CITIES

A meaningful amount of data is nowadays concentrated in the 'physical' city but it is the datacity which provides an endless flow of information making it available online or through computer located in physical spaces of the city. The majority of the cities are nowadays exchanging data hubs. Recently the city of Vancouver has embraced open data standards and sources inside its urban space. Only a few other cities such as Washington, D.C., San Francisco and Toronto moved toward this kind of openness. The main idea is to digitize and distribute archival data and make them accessible to the public. Vancouver city council will freely share with citizens, businesses and other jurisdictions a huge amount of data while respecting privacy and security concerns. Inside the classic urban space, this 'datacity' produces a new urban digital space made by the data flowing constantly in a virtual and ethereal context which form - polyedrical or curvilinear - is invisible to us. Data have created a new topography of space inside the city. Built the most with a topography based on the harmony and intersection between cardo and decumano, or reproducing the reticular plan of a Greek polis, city

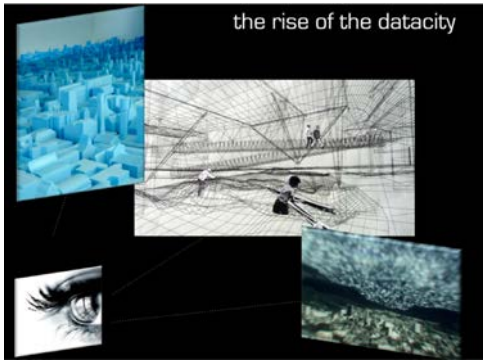
own today a 'digital superstructure', a network of data flowing from one point to another through cables or wireless networks. This digital superstructure produces every day an amount of information which has a direct influence on our life.



Inside the wider context of contemporary cities, we should start reflecting upon the problem of the impact of technologies on the enlargement of cognitive structures and bodily perceptive consciousness produced by the datacity. According to Merleau-Ponty, body is the general medium for having a world. Our naïve and intuitive link to the world takes root in the space through an embodied consciousness which is, from its very beginning, motile/spatial. According to the datacity we access different forms of information coming from expanded technological platforms. Today the new instruments of technology accessible in the city and the growing power of media give us free access to knowledge and also the possibility to be actors in spreading/handling information through the different virtual points of the datacity.

This is an advantage as regards the epoch in which Merleau-Ponty discussed spatial/motile consciousness because in the past 30 years the new technologies, and their use by media, have caused an enlargement of cognitive structures and perceptive consciousness of spaces. Any cognitive process of perception is closely linked with a specific situation and a specific architectural/situational context. It's unquestionable that today space-time distances are extremely reduced and the motility power of our consciousness has proportionally expanded. Technology has also boosted the power of our senses. Television has become an extension of my eyes; the radio the lengthening of my ears and the computer has raised to the nth power the calculating ability of our brain and multiplied conceptual/logical process. Internet has increased the quantity and the accessibility of available knowledge realizing at the same time Voltaire's dream of a Universalis Eyncyclopaedia.

Living in those expanded digital cities means to deal with an expanded spatial body. This does not necessarily mean that the enlargement produced by digital technology is real. Technically it could be so but we should also consider the fact that from the point of view of a bodily perception this enlargement could be exclusively virtual so that the perception of the real world could be deceptive. Perception of architectural spaces and structures is strictly connected with the rise of technology and virtual reality produced by computer and digital designing. This is the case of 'computer-aided architectural design.' In the last four decades the role of computer technology in architecture has gained for example a marked significance. Against the background of the information technologies architecture has also gained a new reality. No longer are objects or processes the constituting elements of a building. Now they are described as technical networks of communicating nodes, which balance themselves in contrived patterns. From this point of view design should be considered a way to create

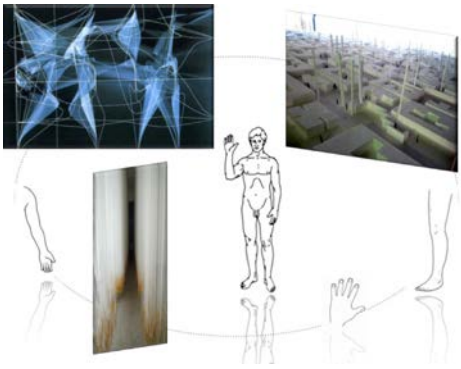


objects that support communicative and "intersubjective" aspects and by this work as a means of mediation between people.
In a near future we could face the perspective of a totally virtual world in which the man could lose his grip on reality in the virtual reality created by computers, Internet and the media could replace the real movement of the body and 'remove' it's naïve and intuitive link to the world. The result of this process is that the perceived world won't coincide with the real world. From this point of view, we should reflect seriously upon the new relationship existing between embodiment, cognition and new technologies and tackle with no fear the ticklish question of the effects of new technologies (and their use by media) on our perception of reality and space. Audience's perception of an event can be shaped, framed and mediated by mass media through a real mise-en-scène. This mise-en-scène focuses often on a singular frame isolated from its context. The result of this operation is the distortion of its original meaning. As underlined by Robert Sylwester, this well-prepared mise-en-scène is constructed for the purpose of exploring areas of strong emotional arousal to help shape our knowledge and opinions and produce rapid/impulsive and not delayed/reflective decisions. This question has been tackled, from a different point of view, by semiologist Umberto Eco who defined the neo-television (reality TV for example), as an 'auto-referential' medium: images and news are created ad hoc with no direct relationship with the real world. Hubert Dreyfus - whose famous book What computers can't do (1972) provoked a large and public debate about the limits of AI and technology in general - has outlined that if the body is « the source of our sense of our grip on reality » and its shape and movements play « a crucial role in our making sense of our world », the loss of embodiment provoked by the Net and its virtual world can lead to « a loss of the ability to recognize relevance» and also « a loss of the sense of the reality of people and things »

THE RISE OF THE DATACITY

The rise of a 'datacity' during the last three decades has provoked a multiplication of the plans of perception which are connected nowadays with other forms of human experiences. The experience of the representational image of the city produced by the datacity is strictly connected with archiving and processing the endless flow of information penetrating our consciousness. Of course, the extreme rapidity of this flow doesn't allow us to catch the nature of things but just give us a short term appearance of them. The virtual tour and exploration of a city through the images and data produced by it can be a first approach to penetrate inside an urban context and equally life and meaning of a city.

Today many museums and archaeological sites can be explored through virtual tours on CDs or on the internet. This approach is fantastic for those living on the other side of the planet, or for those who have physical or economical barriers to fly and make the physical experience of a city. Of course this first approach has nothing to do with the real city whose perspectives can be multiple according to different experience of walking inside its spaces, smelling its gardens, watching through its glass and steel buildings, in one word being there with the global presence of the body. If the body is the medium to have a world, the virtual image produced by the datacity, tends to reach only a part of our perceptive apparatus, the faculty of imagination and can mislead our mind about the degree of reality of this vision.



The technique of reproducing the image of a place on a screen as if it were real can be deceptive comparing to its physical experience. If the sight, in a global world in which images and videos play a crucial role, is privileged, the other senses are left out from knowledge proceedings. From the images, the videos and other multimedia contents mind can deduce an ideal and general structure of a particular human and spatial experience without being in situ. Of course, this is another façade of a mise-en-scène allowing our consciousness to have points of reference to produce a global and reassuring image of the city but does not say anything about the nature of being there.

CONCLUSION

If urban structures seem to be conceived to experience the body's motor faculties, the structure of datacity's stimulates experiences on different virtual plans which are related with new physical, sensorial and knowledge fields. The structure of the datacity seems to be dynamic and constantly in-movement according to its constant auto-shaping nature. In this virtual and ethereal topography my body becomes a part of a wider interconnecting system involving me and other digital inhabitants or elements around me. The city becomes a datacity produced by its virtual users and data actors. According to this projection other forms of experience and knowledge can be achieved by humans. As was earlier stated, the body inhabits space and there is no real separation between the self and the world. The basic form of intentionality exists in the body and its movements. If space is motility, to explore an object I must move towards it and watch it at a right distance. If I change the perspective, perception of the object also changes. According to this movement, I am able to verify the depth and the thickness of the object. But the body is the condition of this subjectivity. From this point of view, access to the interiority is possible only through the exhibition and the representation of the body in space.

Our claim is that for this reason the representation of the city produced by the datacity tends, on one hand, to exclude the forms of 'classic' and sensible knowledge - replacing the body's movement in space with the movement of a virtual body controlled by mind. From this point of view, when access-

ing a datacity and the perception of a virtual space, the mind cannot be involved - from a motor point of view - in a global motile situation. The motility inside those open spaces is virtual and deceptive. The space is perceived indirectly, through a "second hand" reduction of mind. However, on the other hand, multiplying the levels and the plans of consciousness and changing the nature and the consistence of lived space, the datacities open new paths and frontiers of human experience.

BIBLIOGRAPHY

Carman (2008), Taylor Merleau-Ponty, Routledge

Dance - Space - Architecture Pulse (summer 2006)

Dreyfus, H. (1972). What Computers Can't Do, New York: MIT Press

Dreyfus, H. (2001). On the Internet, Routledge

Goetz, B., Madec, P. (2009). Younès Chris Indéfinition de l'Architecture, Editions de la Villette

Paquot, T. (2010). Younès Chris Philosophie de l'environnement et milieux urbains Paris: La Decouverte

Gallagher, S., Cole, J. (1995). Body Schema and Body Image in a Deafferented Subject Journal of Mind and Behavior 16 (1995), 369–390.

Hovestadt, L. (2007). Architecture and Flusser's Technical Images, Symposium at Jan Van Eyck Academie, June 27.

Jakob, M. (2008) Le paysage Infolio

Maldiney, H. (1973). Regard, Parole, Espace l'Age de l'Homme

Merleau-Ponty, M. (1945). Phénoménologie de la Perception, Paris: Gallimard

Merleau-Ponty, M. (1964). Le Visible et l'invisble, Paris: Gallimard

Merleau-Ponty, M. (1964). L'Oeil et l'Esprit, Paris: Gallimard

Richir, M. (2006). Fragments phénoménologiques sur le temps et l'espace, Editions Jérôme Millon

Schilder, P. F. (1935). The Image and Appearence of the Human Body, London: Kegan Paul, Trench, Trubner & Co., Ltd.

Straus, E. (2007). Vom Sinn der Sinne in F. Pouillade, De l'espace chorégraphique : entre extase et discrétion Philosophie n.93, Éditions de Minuit

Sylwester, R. (2001). How Mass Media Affect Our Perception of Reality, Brain Buzz Dec.

Thibaud, J.-P. (1996) Mouvement et perception des ambiances souterraines. Les annales de la recherche urbaine, juin, n° 71, pp. 144-152.

Thompson, D. J. The Phenomenology of internal-time consciousness, Philosophy Department - Memorial University Canada (http://www.ucs.mun.ca/~davidt/TimeHsrl.html)

Photo Credits

Bogota City Blues http://www.flickr.com/photos/coso_blues/3173483728/
Cesario, Marco Barajas 2010
Cesario, Marco More London 2009
Fischer, Eric Local and Tourists #1 (GTWA #2): London
Gilmour, Kim City Hall Interior – Office space and spirals 2004
Hopsch, Michael Body in Space
Eisenman, Peter Virtual House

Other photos have been taken and composed by Marco Cesario during the Biennale di Venezia 2010 or from the Internet.

Urban Mundane & Serendipity in the Digital Age

Reimagining the City Map

Seán Kearney
MSc Interactive Digital Media, 2010. Trinity College Dublin, Ireland.
seandkearney@gmail.com
frontgate.ie/content

INTRODUCTION

Cities also believe they are the work of the mind or of chance, but neither the one or nor the other suffices to hold up their walls. You take delight not in a city's seven or seventy wonders, but in the answer it gives to a question of yours.

Kublai Khan to Marco Polo: Invisible Cities, Italo Calvino – 1974 [1]

Amidst the globalized clutter of Western culture, the eccentricities of a city and its people describe its true personality. In the tradition of the Dérive [2] (the aimless wander through the urban environment) a poetry exists between these mundane characteristics – dull, lacking in interest or excitement – and serendipitous discovery of the city itself – occurrence and development of events by chance in a happy or beneficial way. From these perspectives, the article discusses three layers of the Data City: visualization, content, and process. A new idea of 'map' emerges as a result: an ongoing narrative that unfolds through serendipitous combination of mundane qualities.

The Content research project (frontgate.ie/content) is the main reference point of this study. This online platform was produced on the 2010 MSc Interactive Digital Media course in Trinity College Dublin, and reimagines the iconic 'Front Gate' of the university (situated in the bustling heart of Ireland's capital city) as a recording device: a sensor to the summer of 2010.

Fig.ure 1. The Front Gate of Trinity College Dublin.

Our interface presents a shifting cloud of 2010 crossmedia elements: a collection of photographs, Tweets [3] and sound clips. This collection was made over a three-month

period – June, July and August of this year – and each element was selected as symbolic of activity within the physical and conceptual Front Gate space during this time.

Content's approach to narrative is heavily

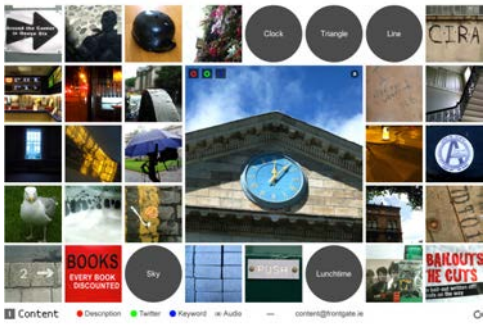


Fig.ure 2. The Content interface, a shifting representation of activity in the Front Gate space during the period of research

influenced by the traditional literary style associated with Dublin, a capital 'raised on songs and stories' [4] and honored as a UNESCO City of Literature this year [5]. The city-symphony relevant to this part of the world represents a blend of the highly descriptive, streamofconciousness prose of famous Irish writers such as James Joyce or Samuel Beckett [6] with raucous social realism of Seán O'Casey or Brendan Behan [7]. The same mischievous obsession with insignificant details and trivialities represented the foundation for Content, and point onwards to the mundane and serendipitous qualities of the 'reimagined' map to be discussed. This paper aims to combine a number of ideas as to what this platform could be.

This concept explores alternative development of the information cloud, based on Janet Murray's properties of the digital medium [8] – Procedure (rules and structure), Participation (response to user input), Spatial (space we can explore) and Encyclopaedia (ability to store and retrieve information as requested).

As Kublai Khan and Marco Polo discussed, the many wonders of a city stimulate our own place within it. The Data City map takes on a new role: it will offer a responsive structure, enabling chance encounters of information and content in order to answer the questions we ask of our surroundings.

DATA CITY MAPPING – VISUALISATION

Maps are figurative representations of dimensions, attributes and relations of things in the physical or logical world... Maps give their makers the power to define the territory in their terms and write a singular vision onto the landscape. William Owen, Beyond the Horizon – 2008 [9] Data visualization in contemporary information environments is nothing new. It grows in tandem with our visual literacy: visual data analysis has become more prominent over recent years (examples such Information is Beautiful, We Feel Fine [10]), while explanation of news events and current affairs become more responsive and interactive, adding layers of colour, scale and comparison to enhance understanding of content (Zeitgeist, NewsMap [11]).

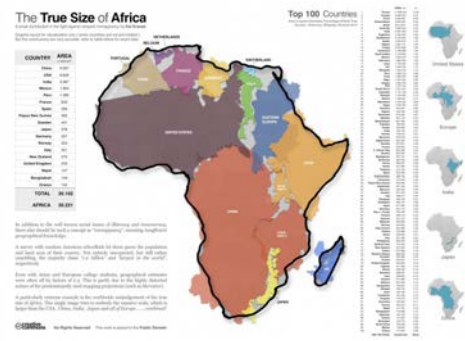


Fig.ure 3. Comparing relative sizes of countries in relation to the African continent, challenging our perceptions of its actual size

Opportunity to access and contribute to these data platforms also grows through greater availability of high resolution col-

our screens and smaller, cheaper devices in mainstream Western consumer culture (smartphones, notebooks, iPads etc.) PhotoSynth and OpenStreetMap [12] are examples of ongoing crowdsourced perspectives of the urban landscape, while in wireless, ad hoc city networks a range of augmented reality and locative social media applications (FourSquare, Bing Maps [13]) repurpose and reinform our movements or activity.

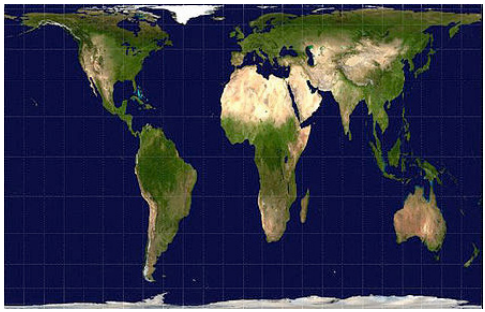


Figure 4. The GallPeters projection challenges common Western perceptions of the actual land mass of the developing world

Subsequently, exploration of the city space has become a more accessible, digitized experience. Maps have experienced a massive shift from singular, 2dimensional tools to dynamic, augmented reality navigation enhanced with social and locative media sensibility. Each of the digital platforms above allow users to contrast a broad range of perspectives at once, increasing the spatial sense of surroundings.

They are attempts to break out of the paper-and-screen "flatlands" explained by Edward R Tufte: "for all the interesting worlds (physical, biological, imaginary, human) that we seek to understand are inevitably and happily multivariate in nature." [14]. As these

Figure 5. Screengrabs from *The War On Democracy*

media layers are built up, our conceptual vision of city space moves into four dimensions and beyond: as far as our imaginations and interests may take us.

Enhanced visualization of an environment lies in the desire to direct experience or navigation of a place. This is not without major sociopolitical considerations, as suggested by Kai Krause's True Size of Africa map [15] or The GallPeters Projection [16]. These challenge perceptions based on more 'familiar' visualizations, highlighting issues of motive and control held in authorship of maps. They are suggestive of the psychological 'borders' the Data City map attempts to break down.

Direct implications of visual 'inclusion' are also highlighted in John Pilger's 2007 docu-

mentary The War On Democracy [17] during which a feature on Venezuelan President Hugo Chavez singles out the sprawling Caracas Barrio of La Vega. Despite being home to over one million people, the district was left as 'empty space' on official city maps up until the election of Chavez. There was zero official acknowledgement of its inhabitants' civic rights in local or national politics as a result.

Figure 6. The interior archway of the Front Gate

In the Data City, a similar implication of such 'immappancy' is applied instead to the transparency or accessibility of digital content and communication in community space. Opening a network to free collaborative input – and providing this platform as a 'map' of the given environment – could oversee massive restructuring of media purpose for a city population.

The massive diversity of sprawl in large urban centres today, often operating under many independent and incompatible systems of selfgovernance, community and culture, illustrates the disparity of traditional maps that are provided by municipal authorities or media providers. The results of this disparity could range from anything between ignorance to local businesses or services, to grand scale refusal of recognition for civil rights or cultural identity. In reimagining the city map, the ultimate goal is to push the boundaries of selfexpression that might be achieved through open networks of visual identity and ideas.

Interestingly, during development the Content platform became symbolic of the interior Front Gate space itself, an area where thousands of students and visitors pass through each day (Figure 6). In pure visualization terms, the digital platform began to resemble the physical form it actually described: a transient space in constant visual and sonic flux. Could dynamic, interactive visualizations become part of physical city spaces themselves – part of the very design and architecture of buildings and landmarks? If a map is repurposed to provide this procedure, a structure from which visualization can be built (rather than vice versa) might the city be able to explain itself in a more meaningful, transparent way?

DATA CITY MUNDANE – CONTENT

The unique rhythm and harmony of graphic elements that help define a city's vibe also give it a characteristic energy, setting it apart from all other locales. The people, the sounds, the smells of a city are essential components of its identity, but all of these items must find a physical home for themselves, a means of organization that is visual andspatial. Ivan Vartanian & Lesley A Martin, Graphiscape [18]

Contemporary social media platforms – eg Facebook, YouTube, Flickr – illustrate our changing attitude towards digital content and the way in which we share to make sense of our daily routines and media culture. Our relationship with the medium of photography is a relevant example: the uploaded collections we open to loosely-con-

nected communities of friends and contacts today are a dramatic shift from former mentalities associated with the private photo album, kept safe in our homes. These collections were only shared with visitors or those invited into personal physical space. Yet, uploaded digital collections have opened a new dimension to our photography, enabling links between people, places and narratives across spontaneous social platforms. Digital albums offer the structure for these links to be formally recognized, building vast networks of linked visual content as a result. The procedure is provided, and the content continually repurposed through user participation.

Figure 7. Simultaneous events in Dublin city centre, 26.06.10

Expanding from photos to status updates, blog posts, comments or Tweets, today we have grown comfortable – complacent, even – about broadcasting the most banal effects of our daily lives. This reflects a developing "always on" mentality: we are in constant broadcast mode, while also free to check in and out of each other's broadcast streams. Our social media lives are channels that others can tune into at any time. Be it within the Front Gate or any other city space, at any moment there are thousands of independent, invisible channels actively broadcasting around us.

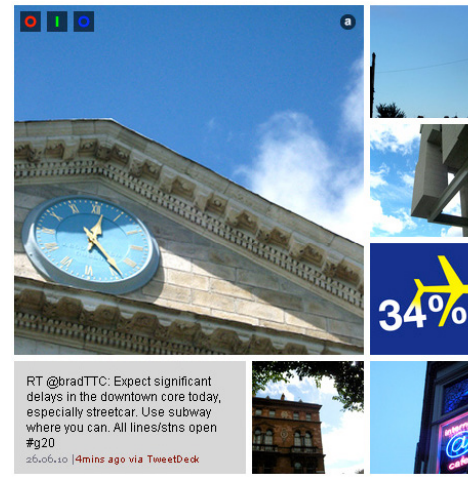


Figure 8. Tags connect previously unrelated content, creating unpredictable juxtapositions of live narrative for the map user

In terms of the city's 'wonders' however, Lev Manovich argues in his 2008 essay The Practice of Everyday (Media) Life that the majority of online content we produce today merely parodies our own traditional (ie. professional) visual media - iconic film sequences, monologues etc. Using YouTube as an example, he suggests just 1.5% of users regularly upload content as well as browsing and consuming what is contained in this particular data cloud [19].

As this suggests a colossal 98.5% of YouTube users merely consume what is presented to them by others, does this platform offer any alternative insight into a particular social fabric or complexities of a physical environment? Can the Data City express itself in any way, other than via the strict semiotic guidelines laid out for it by it's own common media culture and a minuscule fraction of its inhabitants?

Perhaps it is greater exploration of the mundane, invisible personal channels that represents the next step for interactive digital experience, offering an alternative opportunity for the Data City to express its distinct flavour? In this way the reimagined map begins to act as the common plane, where combined channels of Data City inhabitants merge together to create a realtime stream of information, building links across this media as it is received.

How might cameraphone films, Skype calls, ticket purchases, soundscapes and web traffic - searches, cookies, rss feeds, online transactions – be added to this mix? How might they be combined simultaneously to build an enhanced sense of the Data City space, harnessing streets "immersed in a twitching, pulsating cloud of data"?[20] Could there be further untapped potential to be found through interconnection of ideas and expressions of identity?

Many civic maps are already built from data collected in physical urban surroundings, monitoring anything from footfall, to traffic, to behaviours. These statistics are often discrete in their nature: true or false, yes or no. The mundane, on the other hand, could be distinctly different from hard data capture represented in sensorbased visualizations. As a result, this media will prove harder to categorize in logical systems, but here lies the challenge in repurposing this content to build live maps.

Despite being presented over the digital medium, mundane sampling veers nearer the idea of an analog sample of the city space. It remains a result of human input and authorship, sharing discrepancies, peculiarities, and quirks of what we find in the urban environment. There is distinct sentiment and individuality that carries through. In mapping the Front Gate space, Content is able to share these levels of expression despite it's fixed visual structure, from "official" media communication through newspapers, advertisements and Central Statistics Office records to "unofficial" expressions borne in Twitter posts, fly posters and graffiti. Collected together in the same place, a dynamic expression of the space begins to materialize. The reimagined map orders this live encyclopedia of city activity.

Differences between our individual channels could explain varying psychogeographical perspectives of our city lives, and if harnessed in this way might be capable of much greater social impact. What we thought we knew of a place or the people within it might be explored in a completely new light, regardless of whether that city is our home or is a place we've never even set foot in.

DATA CITY SERENDIPITY – PROCESS

These acts may result in the acquisition of new information, the rejection of confirmation of an idea, or the genesis of new, perhaps not wholly formed thoughts on a topic – none of which were the original intent of the user. Elaine Toms, Serendipitous Information Retrieval – 2000 [21]

In the research process, Content demonstrated it's most powerful serendipitous

connections on Saturday 26th June, 2010. As over 20,000 people lined the streets to witness the Dublin Pride Parade [22], hundreds more gathered to demonstrate as part of the EU/NGL's week of solidarity and protest [23]. Adding to an already colourful afternoon in Dublin, a fundraising 'Zombie' march also took place [24]. Wildly differing moods, expressions and ideas all shared the same small space – approx 1km2 – in the city centre that afternoon (Figure 7)

While monitoring this activity, both on the streets and online, newsfeeds from across the world focussed on Toronto, Canada, where the ongoing G20 summit lead to tense standoffs between police and demonstrators across the city, escalating into violent exchanges throughout the day [25]. Following events in Toronto and Dublin we began to match media content through unexpected mundane connections – colours, times of day, slogans, motifs.

The simultaneous events illustrated the 'stream' concept of modern information traffic, as described by Gene Smith [26 (p19)] in his exploration of tagging and metadata. This constant flow of content – some relevant, some useless – falls in line with the Long Tail theory [27], the concept that all information, no matter how niche, has relevance to somebody. On that Saturday afternoon we were able explore live links being made between independent events, happening at the same time in opposite parts of the world. What both cities had in common was the sheer volume of content - film, photography, social media - being created and shared by contributors (both in situ and following events through the same online platforms). The local-to-global scalability of realtime data links became apparent to our research.

In providing juxtaposition between familiar and unfamiliar content, there is broad potential to continually describe or prompt meanings a user might not have originally considered [28]. Any number of themes might be discovered and obtain new cultural relevance for one user, while remaining completely oblivious to another. Via this map, here at last is the Data City's serendipity at play.

Also, regarding mapping motive and inclusion/exclusion of input as already highlighted, there are wider cultural implications to this data juxtaposition. In her 2010 Guardian series Untangling the Web, Aleks Krotoski asks if data traffic indicates that, online, we are increasingly only talking to people 'the same' as ourselves, relying on our friends' directions to navigate the web. "It's ironic that, rather then opening us up to an ever-greater number of opinions and attitudes, social networking sites such as Facebook and Twitter may actually be narrowing our worldview, confirming what we already believe and reinforcing attitudes we hold already." [29]

The issue of 'shared media vocabulary' in such environment can also be raised if the personal 'broadcast' is compared to the closest contemporary media equivalent – the TV channel. Holden's Japanese Televisual Discourses highlights how, in a country where 100% of the population are said to

watch TV for an average of 3.5 hours per day, "a shared vocabulary and realm of experience" presents a "common way of seeing and interpreting the world" [30 (p11)] Our perspectives of the contemporary Data City environment are improportionally restricted when considered against the sheer volume of content being generated within it. If the reimagined map allows us to access and share this stream, another dimension of media might develop.

So, in using common procedural platforms as demonstrated in Content, multiple maps of the same place might be painted for each individual user based on their own understanding and interests. These maps allow for random, realtime discoveries to inform greater cultural appreciation of a city space for users. They return full circle to the traditional purpose of the map, as a defined set of instructions and directions for the holder to navigate a physical environment and the things they will find there. The difference is their live, transient nature, open to participation and personal connections made across data by the user at any given moment.

CONCLUSIONS AND FUTURE WORK

This discussion begins to unravel the idea of the map when examined as a crossmedia collaborative exchange. Through digital collection of mundane entities there is the potential to repurpose understanding of physical and conceptual spaces in the Data City. Initially, this could have potential to draw community (and visitors) closer to shared visions of urban environments, discovery of new common ideals and modes of expression linked to city life.

Future development must continue to expand this theory of shared experience and communication. This represents an alternative perspective, breaking away from the restrictions of pre-defined media vocabularies. Consequently, challenging questions will be raised as content veers away from stereotypes and western cultural norms, especially as wireless network capabilities and mobile devices expand across the developed world and new digital platforms become possible there.

Such mapping platforms will also force massive shift in civic and governmental control over media, as well as probing freedom of speech, copyright, legal implication and accountability through digital content. These boundaries will continue to be pushed as a result. New revenue channels will emerge over network platforms, as will new ideas regarding freedom of choice and representation, as well as changes in accountability of government, authorities and media providers.

In an optimistic sense, greater potential for community activism, understanding and transparency exist as Data City inhabitants are exposed to the shared information and visual content stream of the environment they inhabit… although the utopian or dystopian possibilities of such environments can only be revealed as these media platforms develop. As the digital cloud continues to grow and experimental visions for our networked data society prevail, reimagining of city maps in this way may prove to be one of the next steps in this journey.

REFERENCES

[1] Calvino, I. (1974). Invisible Cities London: Vintage 1997

[2] Debord, G. (1956). Theory of the Dérive
http://library.nothingness.org/articles/all/all/display/314
Last accessed 29.12.10

[3] bbc.co.uk – 31.07.10
Twitter user sends world's 20 billionth tweet

http://library.nothingness.org/articles/all/display/314
Last accessed 28.12.10

[4] Pete St John (circa 1970s)
Dublin In The Rare Ould Times (Traditional Irish Folk Song)
http://www.youtube.com/watch?v=ORoN2nnYHYD

Raised on songs and stories, heroes of reknown
The passing tales and glories that once was Dublin town
The hallowed halls and houses, the haunting childrens' rhymes
That once was Dublin city in the rare ould times

[Chorus:]
Ring a ring a rosie, as the light declines
I remember Dublin city in the rare ould times

[5] Dublin, UNESCO City of Literature 2010
http://www.dublincityofliterature.le/
Last accessed 27.12.10

[6] James Joyce – http://en.wikipedia.org/wiki/James_joyce
Samuel Beckett – http://en.wikipedia.org/wiki/Samuel_Beckett
Last accessed 27.12.10

[7] Sean O'Casey – http://en.wikipedia.org/wiki/Sean_O'Casey
Brendan Behan – http://en.wikipedia.org/wiki/Brendan_Behan
Last accessed 27.12.10

[8] Murray, J. (1997). Hamlet on the Holodeck, US: Free Press/MIT Press

[9] ed. Fawcett-Tang, R. (2008). Essays by William Owen, Mapping Graphic Navigational Systems Switzerland: Rotovision

[10] Information Is Beautiful – http://www.informationisbeautiful.net/
We Feel Fine - http://www.wefeelfine.org/
Last accessed 27.12.10

[11] Zeitgeist – http://www.guardian.co.uk/help/insideguardian/2010/feb/03/zeitgeist
NewsMap – http://marumushi.com/projects/newsmap
Last accessed 27.12.10

[12] Photosynth – http://photosynth.net/

Open StreetMap – http://www.openstreetmap.org/
Last accessed 28.12.10

[13] FourSquare – http://foursquare.com/
TED Talks 2010: Microsoft/Bing Maps – http://www.ted.com/talks/blaise_aguera.html
Last accessed 28.12.10

[14] Tufte, E. R. (1990). Envisioning Information, Connecticut: Graphics Press

[15] Kai Krause
The True Size of Africa
http://flowingdata.com/2010/10/18/true-size-of-africa/
Last accessed 28.12.10

[16] Gall-Peters Projection
http://en.wikipedia.org/wiki Gall%E2%80%93Peters_projection
Last accessed 28.12.10

[17] Pilger, J. (2007). The War on Democracy, Lions Gate/Granada Productions

[18] Vartanian, I., Martin, L. A. (2003). Graphiscape (Tokyo/New York), Tokyo: Goliga Books/Rotovision

[19] Manovich, L. (2008). The Practice of Everyday (Media) Life
Available at http://www.manovich.net/TEXTS_07.HTM
Last accessed 28.12.10

[20] City of Sound Blog – The Street As Platform – 11.02.08
http://www.cityofsound.com/blog/2008/02/thestreetasp.html
Last accessed 28.12.10

[21] Toms, E. G. (2000). Serendipitous Information Retrieval, Faculty of Information Studies, University of Toronto. Available at
http://www.ercim.eu/publication/wsproceedings/DelNoe01/3_Toms.pdf
Last accessed 28.12.10

[22] Irish Times – 26.06.10
Thousands in Dublin pride march
http://www.irishtimes.com/newspaper/breaking/2010/0626/breaking16.html
Last accessed 28.12.10

[23] EU Week of protest
http://www.politics.ie/currentaffairs/131881joehigginslauncheuwideweekprotest.html
Last accessed 28.12.10

[24] Dublin Zombie Walk – 26.06.10
http://www.dublinzombiewalk.com/index.html
Last accessed 28.12.10

[25] Boston.com – The Big Picture: G20 Protests in Toronto – 28.06.10
http://www.boston.com/bigpicture/2010/06/g20_protests_in_toronto.html
Last accessed 28.12.10

[26] Smith, G. (2008). Tagging: Peoplepowered metadata for the social web California: Peachpit/Pearson Education

[27] Long Tail Theory – http://en.wikipedia.org/wiki/Long_Tail_Theory
Last accessed 29.12.10

[28] Hall, S. (2007). This means this, that means that, London: Laurence King Publishing

[29] Aleks Krotoski – 12.12.10
Hate and the internet – Does the internet encourage insidious and bullying behavior?
http://www.guardian.co.uk/technology/2010/dec/12/alekskrotoskihateinternetracism
Last accessed 28.12.10

[30] eds Holden, T. J. M., Scrase, T. J. (2007). medi@sia – Global media/tion in and out of context, London/New York:Routledge

Images

Figure 1 – Front Gate, Trinity College Dublin Bing Maps, © Microsoft Corporation

Figure2 – Content interface, MSc Interactive Digital Media 2010, TCD

Figure 3 – Kai Krause, The True Size of Africa (Creative Commons)
http://flowingdata.com/2010/10/18/true-size-of-africa/

Figure 4 – GallPeters Projection
http://en.wikipedia.org/wiki/Gall%E2%80%93Peters_projection

Figure 5 – Screengrabs, The War On Democracy (John Pilger, 2007)
http://www.youtube.com/watch?v=w9vco_U1w0E

Figure 6 – Front Gate interior, Trinity College Dublin. Author's own photograph

Figure 7 – Dublin Pride 2010, Author's own photograph
Detail from EU/NGL flyer: http://www.politics.ie/current-affairs/131881joehigginslauncheuwideweekprotest.html
Zombie Walk 2010, still from Author's own film

Figure 8 – Detail from Content interface, MSc Interactive Digital Media 2010, TCD

Effects of GPS Navigational Systems on Experiencing Cities

Deniz Yatagan - Burcu Bostancı
Istanbul Technical University
denizyatagan@hotmail.com

INTRODUCTION

To provide their necessities and demands, people change their locations. In order to have a "successful travel" people should know where their travel is going to end and how they reach their final destination, people also should not have any accidents or delays on the way. This definition also consists of the requirements of the navigation. It is coordinated and goal directed movement through the environment (Montello & Sas, 2006).

The meaning of the navigation is to find a person's way at sea, additionally on land and in the air. Navigation is a subject that has studied on with its relation to "flight of pigeons and bees", "reproduction in salmon", "the migration of Eskimo people's in the Antarctic" and more recently, "the voyages of Micronesians sailors who travelled to far islands without instruments". In order to realise their current places with their relation to "virtual landmarks", "cognitive maps" and techniques help them. (Amorim, Glasauer, Corpinot, Berthoz, 1997).

This research paper will discuss the effects of GPS navigational systems on human's relationship with their urban environment. It will explore how those systems affect a person's memories of urban space and the mental maps they form of this space to determine their own position within a city.

Firstly, objective and subjective factors that affect people's realization of the urban environment while they are trying to find their way and locating themselves in the city is discussed. Secondly navigation system and its components and aims are discussed. The case study is compared two different navigation methods. One of them is using gps navigation device and the other one is using map for finding way between two specified points. Memories and remembering on the environment of participants is compared in two different methods. In both methods same visual data is used, however the usage of two devices is different from each other. In maps people need to read maps in order to orient themselves. So they are the active participants of the process. In gps devise people are passive participants. So in this study the effect of passive and ac-

tive participation of a city is compared with these two wayfinding systems.

MEMORY - DATA - CITY

While trying to find their way, people built different types of spatial structures with their personal knowledge, experience and data which are called cognitive maps. To provide cognitive maps they should orient themselves to the environment.

According to Lynch everything that surround people are experienced with other surroundings and the old experiences of people. The settler relate to the city because of their personal memories on city (Lynch, 1960). Besides personal experiences and knowledge, 'data' is used to adaptation and orientation to the new environment. Data can be defined various ways in different areas but the main idea of data can be describe as "something given". When something is given people uses information which is result of some observations and they also make a connection of information that this observation include.

Different memories and cognitive maps are created according to personal differences. According to Tversky cognitive maps are differentiate from each-other from person to person. It depends on the individual's knowledge on maps and environment. She also claims that organization of cognitive maps depends on individual's realization and attitude on environment. It also is affected from both how they take place in their environment and how they relate with their surroundings (Tversky, 1992).

Beritoff suggested that spatial orientation is aptitude of organisms to locate the position of objects and to relate this position to themselves and the other objects. By this point of view, organisms design images about these different objects and they started to move around these known and guided points (Amorim, Glasauer, Corpinot, Berthoz , 1997). These points called landmarks and they are described as geographic feature which is used by explorers and others to find their way back or through an area. They can be anything that is recognizable such as monument, building or any other structures. An organism maintain its orientation with the combination of these landmark and dead reckonings which are described as the updated tracks of locomotion formed with acceleration and velocities(Montello, 2005).

NAVIGATION

Montello (2005) defines navigation with its two significant components. These components are "wayfinding" and "locomotion". Wayfinding is related to people's demands of information on "where to go" and "how to get there". Directed and planned part of navigation aims to find out the answers of such questions. A final destination that is aimed to reach is the requirement of the wayfinding (Montello, 2005).

Locomotion is the realtime section of navigation. It consists of the time while people moving on route that directs them to their final destination without any hinders and accidents. Locomotion demands coordination to the current environment to sensory and motor system of human. Locomotion also demands a good problem solving ability for avoiding hinders and barriers, finding out perceptual landmarks and moving towards them, identifying surfaces of support. Using some vehicles and walking or running are different types of locomotion (Montello, 2005).

A successful wayfinding provide people an efficient goal point that fits their expectations and it makes them reach their goal destination effectively. Cognitive maps, that traveller or the people who communicate to traveller have, can help people to reach effective information. Information also should be up to date, adequately and complete and easily accessible (Montello & Sas, 2006).

CASE STUDY

In this section, it is going to be discussed the case study that is on the effect of gps navigation device on human relationship to their environments. Two different groups are established and they asked to find a specific goal destination from a beginning point. The first group is given a gps navigation device. The second group the route between two points is described and they are given a map that shows neighbourhood with their surroundings. The ages of the group of the participants are between 20 and 53. Fifteen participants take place at the research. Eight of them are select their routes with map, seven of them used Gps Navigation device to find their arriving point. The area which is selected is called Cihangir neighbourhood in Istanbul. The structure of the streets in neighbourhood does not allow a person who tries to reach from one point to another by following a straight route. The participants are given two specific points to reach one from another. The beginning point is the backdoor of the German Hospital and the arriving point is a local grocery. The participants have different route options (graphic 2) that they can reach the arriving point.

Figure 1. Map of the area

The participants asked to arrive the arriving point one by one with their own GPS navigation device or with their maps. After they arrived the given arriving point (the grocery shop), they are asked to fill the questionnaire.

The first question is "what the landmarks you can remember on the road". First group describe their landmarks with general atmosphere of the area. For example one of the participant mentions about the historic buildings and the cleanness of the area or most of the participant realize the main landmark like Cihangir Park. Also they make some

connections with these main landmarks like pharmacist around German Hospital. The participants that are belonged to second group make more detailed descriptions. They could remember the some of the names of the shops, apartment and street names. Also, they determine visual features of these landmarks like the colour of the building or the writings of the wall sign.

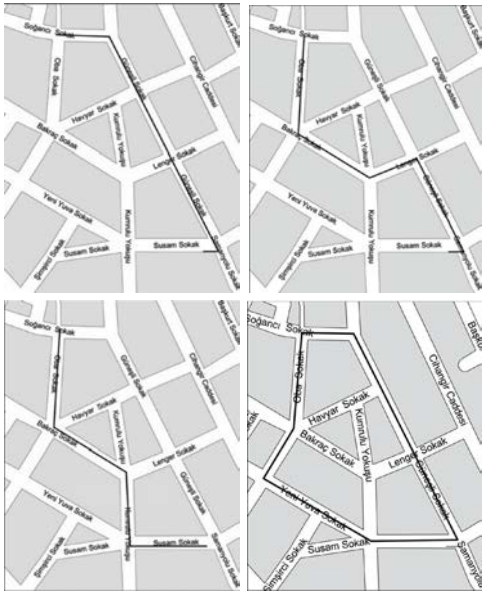


Figure 2. Possible routes between starting point and arriving point.

The second question is "what are the names of the streets that you have passed?" The participants who are belonged to first group can give one or two street names correctly. The participants that are belonged to second group give three, four or five street names correctly according to their own selected route.

At the third question participants are asked to write the name of the places that they remembered and their determining factors of these places. The participants that are belonged to first group write the names of the places that they passed through on the route. These places are cafes, parks veterinary critiques or markets. Only one of the participants writes that she interested in a café that she gave its name, therefore it could be a nice café for having breakfast. The participants that are belonged to second group give the names of places that they passed through and also there are some explanations about the places that they write down their names. One of the participants write names of the apartments and she gives details about colours, architectural style and the shops that take place at the ground floor of the apartments that she selected. One of the participants gives details and comments on window display designs of cafes and shops that he passed through on the route. Also, three other participants that are belonged to second group are write that there are some chairs of some cafes that customers can sit on the pavement. Two of the participants write that there are many second hand furniture on the pavement that are belonged to second hand furniture shops on their route.

The fourth question is "How do you define the places that you remembered on the route?" The participant in the first group try use general landmarks and they make a mental route around these spaces. One of the participants for example mentions about a café and she explains the place of the cafe with the street that she started. Another participant remembers Cihangir Park and his description of that place is "middle of the route". Another participant describes an apartment that she remembers with corner point. Another participant makes descriptions with the arrangement of the street. The pharmacists are in the first street and the market is on the second street that she passed. Also one of the participants doesn't want to answer this question. The participant in the second group also uses

general landmarks in order to explain the places of the buildings. However some of them also use some visual features. For example in order to describe veterinary one of the participant uses position of the building to Cihangir Park and the colour of the building and an other participant uses colour and direction to explain an apartment. Also three of the participant uses street names to make a description.

At the fifth question participants are asked to define the people who saw on their route. Six of the participants that are belonged to the first group are defined the people that they saw on the route. One of the participants writes that he cannot remember the people that he saw. The other participants give details about wearing styles and pets of the people that they saw on the route. Two of them wrote that they saw celebrities on their route. All of the participants that are belonged to second group give definitions and details about the people that they saw on the route. At the sixth question participants are asked to draw a sketch that defines the route that you selected and explain the route under the sketch. The sample answers are detailed below.

Figure 3. A sample participant's sketch

The participant (Figure 3) that is belonged to the first group draw the two streets on her route with some connected street to the main streets. She put Cihangir Park and stairs as her landmarks. She also put arriving point and starting point of the route is put to the sketch.

Figure4. A sample participant's sketch

The participant (Figure 4) that is belonged to the first group draw main routes on his route. He added Starting point and arriving points of the route.

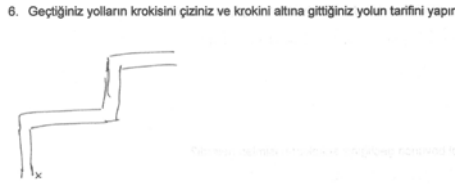


Figure 5. A sample participant's sketch

The participant (Figure 5) is belonged to the first group. He draws shows number of the corners that he used on his route. He put also a symbol that points the starting point of his route.

The participant (Figure 6) shows starting point and finishing point of her route. She also writes the names of the streets and the

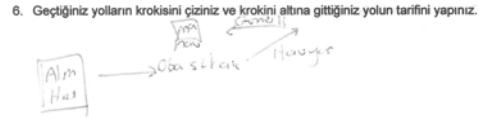


Figure 6. A sample participant's sketch

corner points that she passed through. The participant (Figure 7) that is belonged to the second group (Figure 6) draws the main street and the streets that are connected to these main streets with specifying their names. Also he shows the location of the places that he passed through on the rote. Below the sketch, he defines the route that he selected with giving street names and landmarks and corners.

Figure 7. A sample participant's sketch and definition

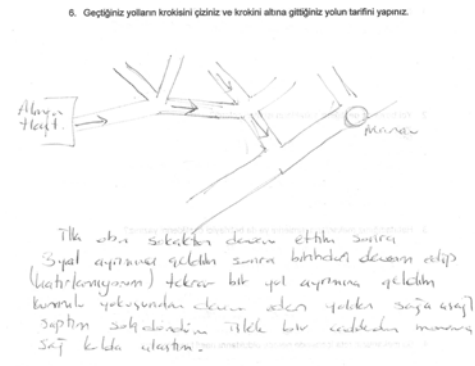


Figure 8. A sample participant's sketch and definition

The participant (Figure 8) that is belonged to the second group draws the streets and corner points she has passed through. She also mentions surrounding street that are combined to her direct route to the arriving point. She shows the first and final point of the route.

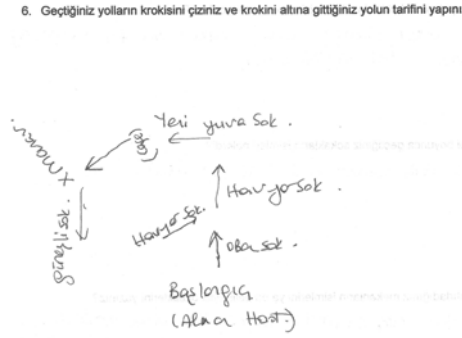


Figure 9. A sample participant's sketch

This participant (Figure 9) that is belonged to the second group draws the direction of the streets with corner points and street names, and she draws one of connected streets at a corner point that she passed through.

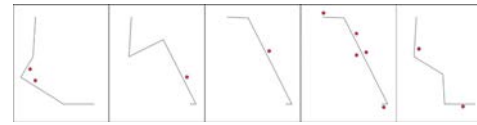


Figure 10. landmarks in the first group

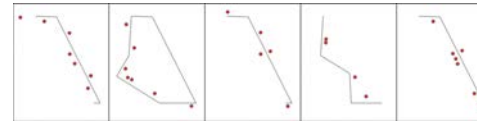


Figure 11. landmarks in the second group

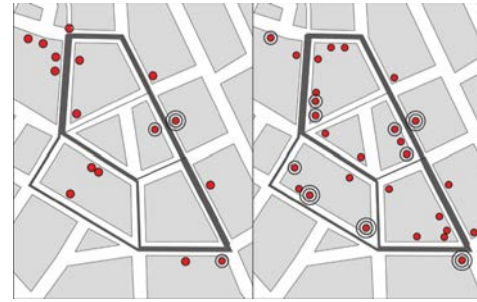


Figure 12. landmarks

In this research the people who uses Gps navigation device to find their ways are compared to the people who uses maps between a specified two points. The research shows that the two methods cause differences about remembering the route the participants take. One of the main differences is the second group members (participants who use maps to find their way) remember more details about the environment and the route that they selected compared to first group members (participants who use gps navigation device to find their ways). They can give more detailed answers and draw more detailed sketches about the route that they took than the participants who use gps navigation device. On the other hand, both of the groups show the similar ability about defining people on their route.

The second group members can define more landmarks on the route that they passed through. Furthermore the landmarks that are picked by the participants change according to their interests in their life. Also the selection of route also depends on the personal interest and familiarity of a place. If participant knows a place from their old experiences they prefer to make a route which includes this place even this place makes the route longer.

All of the participants who take place on the research remembered number of the street corners that they passed through and they showed this on their sketches. But the participants who use maps also remember the direction correctly. Also they could draw more details (like intersection of different streets in corner point) about their surroundings. The participants who use gps device remember number of corners that they passed through.

REFERENCES

Montello, D. R., Sas, C. (2006). Human Factors of Wayfinding in Navigation, International Encyclopedia of Ergonomics and Human Factors, Volume: 1-3

Amorim, M. A., Glasauer, S., Corpinot, K., & Berthoz, A. (1997). Updating an object's orientation and location during nonvisual navigation: A comparison between two processing modes. Perception Psychophysics, 59, 404–418.

Montello, D. R., (2005). Cognition of Geographic Information, In R. B. Mcmaster& E. L. Usery (Eds), A research agenda for geographic information science, pp:61-91. Boca Raton: CRC Press.

Öztürk, A, 2010. GPS Kullanımı. retrived by 25.10. 2010. http://www.slidefinder.net/1/1032_Olcme_Yaz_GPS/13631301

Davis ,R. L. , Therrien,B.A., West, B. T., (2009). Working Memory, Cues, and Wayfinding in Older Women. Journal of Applied Gerontology, 28, 743

Garling, T. , Evens, G., (1992). Environment, Cognition, and Action : An Integrated Approach. USA: Oxford University Press.

Lynch, K., (1960). The Image of the City. USA: MIT Press.

Tversky, B. (1992). Distortions in cognitive maps, Geoforum, Vol. 23 No. 2.

Urban Space Beyond Dystopia

Fragments of Cyberpunk Cities

Bengi Basaran
Phd Candidate
ITU, History of Art
bengibasaran@gmail.com

20th century has undoubtedly been the golden age of technological development in the entire human history. Inevitably, such a rapid incorporation of technology into human life had immense social, economic, political and urbanization effects. Aim of this paper is to showcase examples from films under the influence of the Cyberpunk movement, which opposes the technological optimism of the futurist movement.

In cinema, the movements of Futurism and Cyberpunk perhaps represent the most extreme ends of the spectrum of technological evaluation. Against the ambitious glorification of technology in Futurism, the Cyberpunk defended a totally pessimist perspective on the consequences of further mechanization.

Accordingly, the movements of art bear a remarkable role of infusing and diffusing the technological culture during periods of technologization. In this sense, Cyberpunk and Futurist films are significant examples for the last century as they clearly reveal how the perception of technology evolves over time in art and how this evolution itself is related to the preceding social, political and environmental developments.

Modern/postmodern architecture is also related to political and economical expectations as well as forming aesthetic demands. This is also true of the "fictional architecture" of cyberpunk, both in computer-generated cyberspace and real urban scapes.

THE FUTURIST PERCEPTION OF TECHNOLOGY

The Futurists believed that technology was the key of a better world for humanity in general and favored the new model of aesthetic in arts which was created by machines (Blum, 1990:15). Fundamentally, technology was the new tool of power, order and control method for them. In addition to this, technology was the only instrument which could recreate the super-humans, namely mechanical or machine humans.

Technology was also beautiful with its concept of speed, light, metallic shines, smoke and noise, providing the Futurists with the opportunity to construct a new understand-

ing of reality and space. On the other hand, Futurists did not perceive technology merely as a means to control humanity but also the nature, arguing for instance that electric light was created to kill moonlight. Moreover, technology was the symbol of 'denaturalization of human and reality by sublimating the limits of organic' (Blum, 1990:6-15). Accordingly, technology was loaded with the sexual image and love of machines, which, more material and 'carnal', themselves became the sexual object (Marinetti, Machines Aesthetic is Luomo moltiplicato e il regno dello macchina) (Benton, 1990:23).

To sum up, all these technological appreciations of Futurists at the beginning of the 20th century and after the First World War changed and effected humanity in many ways, but especially regarding technological optimism. The legacy of Futurism sealed a romantic attitude towards technology with the modern movement whose repercussions are still being felt today (Benton, 1990:27).

THE FUTURIST ARCHITECTURE

Antonio Sant'Elia, who after his death left behind the Futurist manifesto of Architecture and significant sketches and drawings of magnificent metropolises for the modern world after was the only Futurist architect in the initial movement, but he was killed during the World War I. His work in his sketches and plans included only the projects of cityscapes dressed up with flashy and moving facades, skyscrapers, overpasses for pedestrians, and traffic lanes; power plants, futurist stations for trains and airplanes and highways for the speedy cars of modern city life which symbolizes both admiration for science and technology (Da Costa Meyer, 1995:260). Unfortunately, he died before he had actually built anything, but admittedly, his ideas vastly influenced the architecture

Figure 1. Sample Work of Sant'Elia.

and cinema of 20th century. As much as he believed in the dream of new modern city full of facilities brought about by new technologies, Sant'Elia also supported the construction of the new architecture using all benefits and advantages of science and technology. He therefore intended to rebuild cities in much more active, mobile and dynamic forms which would have extended the complicated communication networks and high buildings covered with shiny metallic layers to satisfy the spatial need of modern living (Rye, 1972:100,101,107).

Eventually, despite all his strong and procreative ideas and fidelity for the Futurist movement, Sant'Elia (Figure 1.) admitted that the city of the future world would be 'extra ordinarily brutish in its mechanical simplicity' (Rye, 1972:107). But, somehow, the echo of his new perspective reached out of Italy to America, which welcomed the idea of the skyscraper with pleasure due to its convenience and functionality in the metropolis as a 'perfect machine' with its hygienic, attractive, and economic structure with regards to effort and time required in their construction. (Hand, 1981:338).

CYBERPUNK MOVIES

Nonetheless the ideals of futurist architecture remain as significant components of

modern Western culture; the emphasis on youth, speed, power and technology finding expression in much of modern commercial cinema and culture. Ridley Scott consciously evoked the designs of Antonio Sant'Elia in his popular cyberpunk film, Blade Runner.

Cinema remains the best place to experience the architectural imagination in its full glory. Fritz Lang's Metropolis or Ridley Scott's Blade Runner are spectacular, highly glimpses into future cities; such films offer thrilling guides as to how our world might look.

What is fascinating, and very much an area for further research, is the close relationship between radical architectural design and the cinema. Much of the best of modern architecture, combining digital and three-dimensional design processes, is cinematic in their scope and feeling (Gökhan, 2005:70,74)

The concept behind the production design in Bladerunner is no constant style of architecture, the only consistency is in the mixture of styles. Everything has been built and then rebuilt in 2019, there are recognisable architectural characteristics from Hong Kong, New York and Milan. Buildings are built out to the curb with thick corrugated pipes snaking up from the sidewalk and writhing across and through the facades of the buildings. The intense architecture combined with a sidewalk, which is full of people, creates a congested and claustrophobic metropolis.

The one detail that dominates the architec

Figure 2. Scenes from Blade Runner.

ture is the vast amount of neon sculpture and advertising (Figure 2.). The use of neon indicates the status of the neighbourhood and businesses in the area. The Noodle Bar and Animoid Row (where Deckard shoots Zhora) is clearly in the red light districts of Los Angeles in 2019 (Bryno, 1987: 61-74).

Neon is used to reaffirm the feeling of a sleazy metropolis permeated by whores, pimps and the underworld. On the other hand, every Blade Runner set was designed

to generate an emotional aura', the interior of protagonist Deckard's apartment was built to reflect both the idea of Deckard's bachelorhood and the enclosed, oppressive atmosphere of his manner of employment.

To be sure, architectural allusions in Blade Runner are eclectic, but pastiche is ultimately a redemption of History implies the transformation and reinterpretation of tension between loss and desire. This tension is implying through the positioning called as "prosthetic memory", which seeks "to rewrite history by means of architectural pastiched recycling. In artistic rendering of a dystopic future in Blade Runner, a made about the thirdspace of "the ramble city". Besides, pastiched architectural elements such as Los-Angeles and Hong Kong's urban spaces in the film emphasize an "explosion of urbanization, melting the futuristic high-tech look into the intercultural scenarios and also the setting contributes to an affect of future noir by mixing of the old and the new (Yuen, 2000: 38-64).

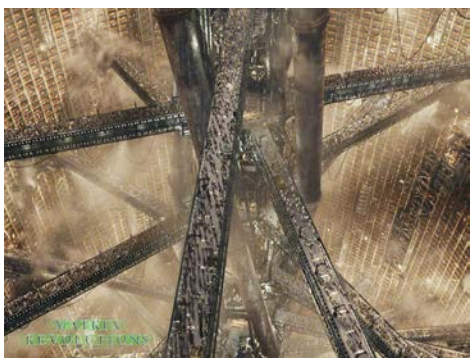


Figure 3. The Matrix.

However, the first visionary city to be successfully realised on film appeared in Lang's Metropolis (1926). Its haunting sets may have been inspired by the director's first sight of the New York skyline, yet the detailed designs - by Otto Hunte, Erich Kettelhut and Karl Vollbrecht - were very much a product of German expressionism and the Bauhaus. Of course, the film is also a reminder of how quickly an idea of the future can date: its visions of life in 2026, with aircraft flying through canyon-like city streets and cars whizzing on elevated expressways that run right through office blocks, already look gloriously archaic (Wells, 2007:138-14).

In the movie The Matrix, the city of Zion was the last human city, it was a place of safety that was protected against the Machines, but as an urban space in future, it seems to appear very primitive. Those who were freed from the Matrix lived in the city of Zion. On the contrary, the virtual reality settlement called The Matrix in the film, simulates a typical American Metropolis like New York in 90s. While this virtual city can produce emotions of anomie, it is also considered to be exciting, busy and full of action as the real one. (Figure 3.)

Another focal point of the movie is the issue of decentralization of technological power by urban space. This is explicitly seen in the fact that the people who live in Zion and fight against the Matrix use common phones, cellular phones and relatively simple computers as technological tools in order to combat with the machines, which use hyper-technological data control systems and weapons. However, as we see in the movie, in most of the cases, these relatively backward tools are sufficient for the people in Zion to succeed against the machines. Inevitably, this brings forth the frequently asked question that whether or not the latest technology is always the best and most efficient one for our purposes (Figure 4.)

On the other hand, travel in cvberspace is generally described by metaphors of "flying", "riding" or"surfing", but each without the perception of a specific medium of

transportation. In fact, the computer-generated space changes and creates the illusion of speed that the disembodied cyber-hero experiences, as he hurtles along. In The Matrix, Neo is so immersed in cyberspace , that he can no longer perceive a horizon; now it is merely data that appears as infinite "endless neon urban scape". Data is described in terms of large corporations, such as city of data "with identical towers of data, each one replica of the skyscrapers." Architecture within the cyberspace universe functions as a metaphor for society of entertainment corporations such as Sense/Net which fuse urbanspace with symbolic cyberspace. Both urban and virtual spaces, are presented as complex domains with difficult borders, fractal geometries, and a multiplicity of cultures (Wells, 2007:136-144)

Figure 4. Zion "last human city" in The Matrix.

In this context, while the cyberpunk cinema is a mirror where we can see our own reality, (Gerrold, 2003:13) it is also the critique of a society that has created its own technoslavery and thus bears correspondence to one of the main arguments of socio-technological studies; that artifacts have meanings and values attached by the society. The Matrix is an extreme example of this case, where the interpretative flexibility of artifacts as argued by SCOT in Kline and Pinch (1999:107-108) has reached to its maximum level and creates a different interpretation of reality. More precisely, the artifact or setting do not have a neutral meaning on its own, but it assumes its meaning through the perception of each and every individual.

CONCLUSIVE REMARKS

In an increasingly connected world, understanding that design is influenced by social cultural mechanisms is critical in order to properly address dynamic needs of the built environment. Per contra dreams of futurist cities, the development of cyberpunk urban spaces has grown exponentially in recent years. These new environments created by cyberpunk cinema are particularly pertinent tools for exploring how technology affects the concept of place, urban space and context. In other words, cyberpunk cities constitute points of referral for planners, urban sociologists and policy makers as well as effecting society by means of audience. Perhaps through Cyberpunk and futurist cinema and architecture we can become more equipped to take a closer look at our environment and our relation to it. Evolving hybridity and urbanism of ours is just an manifestation of our quest for a genuine history as well as in cinema. Moreover, Cyberpunk films link the architectural items together as collective signi-

fiers. Their meanings unfold and surface relative to knowledge and perception. By juxtaposing the signifiers it generates a tapestry of modern and postmodern iconography. Our emotional attachments to/ with the film and characters are heightened by these signifiers. The role of the abstract machine takes on special significance in this context as an attempt to give visual expression to new models of reality. Accordingly, there has been an intense bond between developments in architectural design and speculative possibilities engendered by computer-aided simulations in cyberpunk cinema, so that physical space increasingly resembles cyberspace. As a result, architectural elements of the films remain powerful and foreshadow the fate of humanity in the face of growing technology and globalization which remains yet to be seen.

REFERENCES

Benton, T. (1990). Dreams of Machines l'Esprit Nouveau. Journal of Design and History, 3, 1, 19-34.

Blum, C. (1990). Rhetorical Strategies and Gender in Marinetti's Futurist Manifesto, Italica, 67, 2, 196-211.

Bryno, G. (1987). Ramble City: Postmodernism and Blade Runner. October, 41, 61-74.

Da Costa Meyer, E. (1995). The Work of Antonio Sant'Elia. New Haven, CT: Yale University Press.

Gerrold D.(2003). Introduction. In G. Yeffeth (ed.), A. Ergünç (trans.), What is the Matrix: Taking The Red Pill (pp.1-14) Istanbul: Gelenek Yayıncılık.

Gökhan, A. (2005). Gelismenin Karanlık Yüzünü Gösteren Cyberpunk, Hürriyet Gösteri, 258, 70-74.

Kline, R and Pinch, T (1999), 'The Social Construction of Technology', in D Mackenzie & J Wajcman (eds.), The Social Shaping of Technology (Second Edition), Buckingham: Open University Press.

Rye, J. (1972). Futurism. High Gate Hill, London: Blue Star House.

Hand, O. J. (1981). Futurism in America Art Journal, 41, 4, 337-342.

Yuen, K.W. (2000). Blade Runner, Ghost in the Shell, and Hong Kong's Cityscape. Science Fiction Studies, 80, 27, 38-64.

Wells, K. (2007). The Material and Visual Cultures of Cities. Space and Culture 10, 136, 136-144.

Senses
and the City

A New Sense of City Through Hearing and Sound

Eva Kekou
Panteion University
Department of Communication, Media and Culture
ekekou@syros.aegean.gr
Matteo Marangoni
SoundKino
www.soundkino.org, www.humbug.me
mmarangoni@dada.it

ABSTRACT

Cities, buildings and architecture are usually described in visual terms. Architecture does not produce sound and it can not be heard. On the other hand, it does not radiate light, but yet it can be seen. It is often our sense of hearing which assists us in experiencing urban environments. Sound, space, hearing are embedded in our cultural existence and development. The addition of new media technologies has introduced new cultural practices and adaptations of space are emerging as a result. In this paper we explore the emergence of a new 'sense of the city' both in terms of perception and experience, as well as in terms of our understanding of the meaning of the city.

Aim of this paper is to look at:
What are the potentials of sound to document, study and shape the way a city is experienced?
How is our experience of the city and the choices we make in it affected by mobile communications, pervasive media, ambient informatics?
How are these projects linked with new cultural practices and networked culture? To which extent do they constitute a new "cultural urban identity"?

LISTENING TO THE NOISES OF THE CITY

"…And sitting in the darkness of my moving cell, I recognised echoing in my tired brain, all the characteristics sound of a town I'd loved, and of a certain hour of a day, that I had always particularly enjoyed. The shouts of newspapers boys in the already languid air, the last calls of birds in the public garden, the cries of sandwich vendors, the screech of trams at the steep corners of the upper town and that faint rustling overhead as darkness sifted down upon the harbor.."
Albert Camus, L'Étranger

We hear long before we see. Slowly we begin to filter sounds out to focus our eyes on specific objects instead of gazing/listening/feeling/smelling the great multisensory "Everything" (Ackermann, 1990). As art looked toward public space, temporality, experience and participation, it was inevitable that artists would begin to include sound in their work. For sound encapsulates

all of these qualities by its definition. Critic Max Bruinsma has referred to sound as a "carrier" and it is certainly true that sounds are powerful in triggering memories, in forming narratives inside our minds. One sound can resonate disparate memories or fragments that share some kind of emotional vibratory frequency (Bruinsma, 1990). In a scene from Kieslowski's film La double vie de Veronique (1991), Veronique receives a cassette tape from a secret admirer. Listening to the tape over and over again with headphones and learning to recognise the sound she is able to find a cafe, where the man who has been haunting her, is waiting for her to find him.

Buildings and architecture are usually described in visual terms. But it is often our sense of hearing which assists us in experiencing and navigating through urban spaces. «What seems obvious is often overlooked. This is certainly the case with the sensory dimensions of the built environment. Our houses, our streets, our cities, are not the blueprints, photographs, drawings, postcards, to which they are so often reduced, but a rich sensory brew of sounds and odours, textures and colours. We drink in the flavours of the urban atmosphere, we wade through the sounds of the city streets, we press and push and clamber in and out of buildings. Yet much of this experience lies below the surface of consciousness: it impresses itself on our bodies while leaving our visually based mental maps untouched». (Classen, 2008).

There is a paradox between the fact that cities are highly structured spaces in which almost everything one senses has been processed through a human brain to be orderly, and the fact that interactions therein are far too complex to be controlled.

The physical laws governing the propagation of sound make the city soundscape a territory in which the boundaries between private and public are constantly being questioned. While architectural barriers can effectively provide a visual privacy for individuals in their working and living spaces, it is much less frequent that buildings are able to produce acoustic isolation. All of the sounds you create are resonating your neighbor's body to some degree. While this issue is often viewed as a shortcoming of construction techniques, we can also understand how leaving this communication channel open allows our private enclosures to be embedded in the wider context of the public city.

THE SOUNDWALK: GOING NOMADIC AGAIN

Michel de Certau in his essay Walking in the city describes walking as a language:

«Sounding, listening and walking are all embodied ways of experiencing the world. If we want to use sound to develop human relationships within public spaces, walking is a way to do it. By playing with the ideas mentioned here: sound as space, mapping, ritual, repetition and rhythm, and sound as liberation-artists and composers can remind the public how pleasurable embodied experience can be, by inviting them to reconnect their inner and outer, their dreaming and waking, selves in real space»

A soundwalk is a practice of listening in which one moves through an environment with complete attention to sound. Westerkamp defines the soundwalk as an «excursion whose main purpose is listening to the environment. It is exposing our ears to any sounds no matter where we are». «Wherever we go we will give our ears priority». They have been neglected by us for a long time and as a result we have done little to develop an acoustic environment of good quality. (Westerkamp, 2001)

In 1966 Max Neuhaus, at the time a concert percussionist, with his series called Listen! laid the grounds for the practice of soundwalking. He surprised his audiences by inviting everyone to leave the concert hall, follow him on a walk around the city and listen to the sounds of everyday life as if they were music. This change in the framing of perception from passive to active and from static to mobile could also be seen in relation to a more general return to nomadic lifestyles which we are experiencing in contemporary society. In his book The Songlines Bruce Chatwin describes the aboriginal custom of orienting oneself in the australian inland by the way of chant. This tradition provides a means for travelers to access memories of place which are shared and passed on from generation to generation (Chatwin, 1987). In Anatomy of Restlessness Chatwin further argues that the nomadic origin of mankind has left us with an ancestral need to move and to experience a constant change of scenery: «Diversion. Distraction. Fantasy. Change of fashion, food, love and landscape. We need them as the air we breathe. Without change our brains and bodies rot.» (Chatwin, 1996). Applying this thought to the practice of soundwalking suggests that walking while listening frees the mind from the urgency for change and allows for different modes of attention.

MOBILE AUDIO DEVICES AND APPROPRIATION OF PUBLIC SPACE

Many listeners report that mobile audio devices make them feel more connected to their physical surroundings. It is widely recognised that these devices allow listeners to create their own cinematic experience, applying in everyday life Michel Chion's theory of added value (Chion, 1994). The same audiovisual illusions that we experience at the movie theatre can be also exploited to construct our own narrative in the real world. Composing our own soundtrack is a very powerful way to live the city and has been defined as a strategy of appropriation (M. Bull, 2008). A place that is imposed on citizens by urban planners and developers might be perceived as foreign and unwelcoming, but combined with a chosen set of sounds, it can turn into a more familiar place. As in cinema, this remains of course an illusion that has a limited autonomy if it is not reconnected to the social sphere. The risk that this illusion carries is well described in Michael Bull's words: «The aesthetic moment of urban experience within iPod use draws the "other" mimetically into the users own imaginary realm- theirs is a strategy in which all "differences" are negated and become one with the user.» (Bull, 2008). Negation of the other implies erosion of public space, or as Teri Rueb writes: «What is the space of compromise and negotiation of meaning akin to "public space" in this moment of dual movement between global homogenization and expanded cosmopolitanism? […] As a society we have become atomized, but the question remains "can we form molecules?"» (Teri Rueb, 2008). By eluding the shared experience of a common acoustic environment, we lose the chance to establish unforeseen relations and to question our perspectives through forms of mutual confrontation.

We have chosen a number of case studies that attempt to solve these problematic issues by proposing different approaches to the use of mobile audio devices. The selected works have in common that they reconnect the private sound space provided by headphones with the physical and social space surrounding the listener, offering new and fascinating ways to explore the city.

MARK BAIN – BUG (2008-2010)

Where architecture does indeed provide acoustic isolation, sounding devices can be deployed to spread doubt on the firmness of concrete. This has been the claim of American sound artist Mark Bain. In his recent work Bug, he proves that architecture is not only for the eyes: "I imagine a thin cable coming out of a large building and someone standing in front of it, enraptured, eyes closed." (Arno Brandlhuber, 2008). The vibrations of Arno Brandlhuber's studio in Berlin's Brunnenstraße are transduced into an audio signal by geo-seismic accelerometers. People on the street can listen to their output by plugging a pair of headphones into a jack embedded in the façade. An image of this activity might remind us of the Stasi agent in the film "Das Leben der Anderen" by Florian Henckel von Donnersmarck, suggesting that anyone is now free to eavesdrop in the capital of Germany. However, what passers-by hear in this case is not so much the private life of the inhabitants of the building as much as larger scale transfers of energy flowing through the city and shaking it's foundations in ways that we cannot perceive without the assistance of specialized tools.

NOAH VAWTER - AMBIENT ADDITION (2006)

"If synthetic sounds are introduced, if we venture to produce what I would call 'the soniferous garden', care must be taken to ensure that they are sympathetic vibrations of the garden's original notes" (Schafer, 2004).

Noah Vawter's Ambient Addition is a portable device that attempts to establish a compromise between being helplessly exposed to the aggressions of the urban soundscape and escaping in the isolation of the personalized sound bubble. By introducing a layer of ambient music which is tuned in real time to sounds of the environment, the noises of the city are still heard but in a mitigated form. From a musical perspective the project would seem extremely conservative, as it reduces the complexity of sound to a very small set of predefined pitches and rhythms. However these processed sounds are perceived by the listener together with the original sounds, in a similar way that we would listen to a Japanese wind chime or an aeolian harp, while also feeling the wind. In this way we can consider that they are not excluding but rather enriching the ordinary experience of the city.

SONIC CITY (2003-2004)

Focusing less on practical issues of ergonomy and adventuring further into cyborg territory Sonic City was a pioneering project by a group of researchers based in Goteborg. What they

developed was a generative mobile music system that reacted to a combination of data collected through an array of sensors both from the body of the user (heart-rate sensor and accelerometer), from the environment (light, sound and pollution sensors) and the relations between the listener and surrounding objects (proximity sensor and metal detector): «Music creation in Sonic City is a co-production of the body and urban conditions and is experienced as a dynamic improvisation and continual rediscovery. Voluntary and involuntary actions, visible and imperceptible events all effect the sound – thus blurring the boundary between passive experience and active participation» (Mazè and Gaye, 2003). This is particularly interesting as, while experiencing this system, the self is constantly pulled out of its bodily shell and mingled with its surroundings. While also here the music is still heard via headphones only by the person wearing the device, this project does suggests that it is possible to describes through sonic means the complex relations that take place between shared urban settings and single individuals.

CHRISTINA KUBISCH - ELECTRICAL WALKS (2003-)

Our built environments are dense with electromagnetic fields radiating from all types of appliances. Christina Kubisch has been exploring this hidden and pervasive dimension of the city thanks to specially designed induction headphones which transduce electromagnetic energy into audible sound. Electrical Walks takes the experience of the soundwalk and brings it into uncharted regions. What the walkers hear in this case are the invisible manifestations of power distribution, communication networks, security or public transport systems. Her research in this area has led her to discover a particular kind of genius loci: «In every city there are some surprises. I love American cities because they have deep intense drones. I love Asian cities because they have high and nervous melodies. I like European cities because they are all so different from each other. The electromagnetic sound is connected to the object or place where it occurs» (Kubisch, 2010). The technology that Kubisch developed is derived from an old system employed for the hard-of-hearing: «In the UK, I think they even have a law that churches or public meeting houses have to have these induction loops. What they don't know is that, with these headphones, you can hear exactly what's going on inside. In Switzerland, I came across a group of people—I think it was a group of Indian people— celebrating a religious service in their own language. Because I didn't understand the language, at first I thought it was some kind of terrorist meeting, with all this shouting and these rhythmic sounds. But then I heard the "hallelujah" and "amen," and I understood what it was» (Kubisch, 2006). In these cases the intimate ritual spaces of religious communities spill out of their architectural boundaries and radiate onto the surrounding streets.

MARK SHEPARD - THE TACTICAL SOUND GARDEN (2007)

This project draws on the culture of urban community gardening to posit a participatory environment where locative media provide new forms of social interaction. "Hacking the sonic space of the city is as old as the street performer, or as recent as the portable boom box or Mitzvah Tank" (Shephard, 2005). While the war on file sharing continues on the frontier between the free and the corporate internet, Mark Shepard has developed an application for Wifi-enabled mobile devices that allows users to share audio files in public spaces, not only making the practice even more elusive to copyright enforcement agencies but also embedding it in local communities. File sharing in this way becomes connected to specific places. While

walking the dog, you could listen to a track "planted" next to a bench by an unknown neighbor. Needless to say, the potentials for this type of social networking to produce real world encounters rises exponentially.

SOUNDTRACKCITY (2010)

While the previous projects all create real time interactions between people and urban environments, here we have an approach which employs completely pre-arranged material. Drawing on the form of the soundwalk as developed by artists like Hildegard Westerkamp and Janet Cardiff, Soundtrack City is a project created for the city of Amsterdam which includes a series of audio walks that guide visitors around less known areas of the dutch capital. The walks, together with maps of the routes to follow, can be downloaded in mp3 format from the Soundtrackcity website. Each walk lasts about one hour and is commissioned by the Soudtrackcity Foundation to a different artist or team of artists, including theater makers, composers and writers. One of these walks explores the new area of IJburg. This part of the city started to be developed on a group of new artificial islands on the IJsselmeer in the north of Amsterdam during the last decade. The sound walk for IJburg is inspired by the fact that these a islands have no birds on them – to begin with at least. As birds follow habitual routes, they have not yet learned to stop in this human-made land. This is not so dissimilar to how humans relate to new urban areas. New urban districts which are void of history and have no pre existing meaning can feel like ghost towns. Public art projects like this one can perhaps contribute in providing a means to establish a sense of place and to humanize the products of sometimes questionable urban planning.

CONCLUSIONS

The above mentioned projects demonstrate some of the possible ways in which the experience of the city can be redefined through sound and mobile audio devices. These, as well as countless other works not mentioned here, move beyond the production of novel experience that characterizes consumer cultures, while at the same time avoiding forms of elitist withdrawal. Through these projects everyday experience can be transcribed into a new hermeneutical level where the "hidden" and "unseen" is revealed and interpreted in multiple different ways. While proposing new means of critical expression for the social, cultural and political realities of contemporary cities, these practices establish open ended relationships between technology and subject: audiences can use and interpret the city in a new sense, creating small worlds, imagined communities and endless interpretations within its geographically established territory.

REFERENCES

Ackerman, D. (1990). A Natural History of the Senses. New York: 177, Vintage Books.

Brandlhuber, A. (2008). interviewed in Tuned City – Between Sound and Space Speculation, eds. Kleilein, D., Kockelkorn, A., Pagels, G., Stabenow, C. Idstein: Kookbooks.

Bruinsma, M. (1990). Notes of a Listener, In Sound By Artists, eds. Lander, D., Lexier, M. 93. Toronto: Art Metropole/ Water Philips Gallert

Bull, M. (2008). Turning out of the city: the iPod culture, in Tuned City – Between Sound and Space Speculation, eds. Kleilein, D., Kockelkorn, A., Pagels, G., Stabenow, C. Idstein: Kookbooks.

Classen, C. (2008). Sensuous Worlds: Accessing the Invisible Environment in Athens by Sound. 11th International Architecture Exhibition La Biennale di Venezia, eds. Anastasia Karandinou, Christina Achtypi, Stylianos Giamarelos, Athens: futura, pp. 71-3: 71.

Chatwin, B. (1987). The Songlines, London: Cape.

Chatwin, B. (1996). Anatomy of Restlessness. Selected Writings 1969-1989. eds. Borm, J., Graves, M. Harmondsworth, Middlesex; New York: Penguin.

Chion, M. (1994). L'audiovision, Paris, Nathan.

De Certeau, M. (1984). Walking in the City. In the Practice of Everyday Life. Berkeley CA:University of California Press.

Kubisch, C. (2006). interviewed by Christoph Cox in Cabinet Magazine, issue 21.

Kubisch, C. (2010). interviewed by Alessandro Ludovico on Neural Magazine, issue 37.

Mazè, R., Gaye, L. (2003). Sonic City, Cybersonica Cream Symposium. London, UK.

Schafer, R. M. (2004). The Music of the Environment, in Audio Culture, Readings in Modern Music, eds. Cox, C., Warner, D., Continuum. New York – London.

Shepard, M. (2005). Tactical Sound Garden [TSG] Toolkit, 306090-09: Regarding Public Space. Princeton Architectural Press. November. pp. 64-71

Rueb, T. (2008). Network Landscapes: Landscape, Public Space & Mobile Music in Creative Interactions – The MobileMusicWorkshop 2004 – 2008, eds. Kirisits, N., Behrendt, F., Gaye, F., Taneka, A., University for applied arts, Vienna.

Vawter, N. (2006). Ambient Addition: How to Turn Urban Noise Into Music, Massachusetts Institute of Technology, 2006

Westerkamp, H. (2001) originally published in Sound Heritage, Volume III Number 4 Victoria B.C., revised 2001.

Sonic City, retrieved from (http://www.tii.se/reform/projects/pps/soniccity/index.html (accessed 26 December 2010)

Shepard, M., Tactical sound garden, retrieved from http://www.tacticalsoundgarden.net/ (accessed 26 December 2010)

Soundtrackcity, retrieved from http://www.soundtrackcity.nl/ (accessed 26 December 2010)

Bain, M., Bug, retrieved from http://www.tunedcity.net/?page_id=191
(accessed 26 December 2010)

Neuhaus, M. (2008). interviewed by Brandon LaBelle, retrieved from http://www.max-neuhaus.info/audiovideo/ (accessed 26 December 2010)

Kubisch, C., Electrical walks, retrieved from http://www.christinakubisch.de/english/install_induktion.htm (accessed 26 December 2010)

The Rythm of the City

Varvara Guljajeva and Mar Canet Sola
Interface Cultures, Art University of Linz
varvarag@gmail.com

Keywords: geo-located social content, physical kinetic motion, data sonification, real-time art, mixed reality

ABSTRACT

The growing amount of user-generated data is a sign for the society's dependence on digital networks. Not surprisingly the rapid development of technology is mirrored as well in arts. The virtual environment is an inspiration and as well a working medium for many creative people.

The aim of the paper is to introduce a different approach for the interpretation and usage of geo-located social data. To be more precise, the art project described here can be categories as a real-time and mixed reality art piece. We are proposing an innovative and artistic way for applying geo-located social data for describing a city's pace of life. Our concerns are about the malleability of the digital world to the physical one, and the interpretation of social data for artistic purposes.

The goal is to metaphorically describe locations by extracting geo-tagged content and translating it into the rhythm of a physical metronome in real time. In short, a metronome represents a city. The installation consists of 10 modified metronomes whose rhythms correspond to the selected cities' digital pace of life. The audience is given a chance to discover and experience an alternative way of perceiving different locations through a continuous performance of 10 metronomes. To put in a nutshell, The Rhythm of City is an art installation that explains in original way digital geo-located social content and characterizes cities. Even more, the work is an ongoing performance that embraces different locations, digital social data, and physical kinetic motion.

INTRODUCTION

Starting with the inspiration for the project, Bornstein & Bornstein discovered a positive correlation between the walking speed of pedestrians and the size of the city [18]. Robert Levine [12] demonstrated the faster pace of life in the north ern, economically developed and individualistic countries in his study. In short, the investigations proved that it is possible to describe a city and its culture by the speed of inhabitants and services, and its location.

Consequently, we assume that the digital geo-located social data can give us similar results: in economically developed countries

bigger cities generate more digital social content rather than the cities of undeveloped countries. In other words, we believe that the analyses of geo-located social data will give similar results as have achieved Bornstein & Bornstein and Robert Levine. Thus, the aim is to artistically relate to these studies.

Our assumption is based on numerous facts and theories. First of all, the society is going through the digital revolution and we are living in the information age. Our statement is supported by many theories and studies. For example, William J. Mitchell argues in his book Me++: "disconnection would be amputation. I am part of the networks, and the networks are part of me. I show up in directories. I am visible to Google. I link therefore, I am " (page 62) [14]. Besides Google Twitter, Flicker, Facebook, etc are part of our every day's life.

To be more specific, Fujisaka, Lee, and Sumiya state in their article that a significant part of population is sharing its daily live and social events through microblogs, like Twitter. Even more, the growing usage of mobile devices makes blogging more popular and accessible. It means people are reporting about happenings, their activities, feelings, etc instantly [8]. The authors refer as well to the fact that it is possible to make sense of the data of microblogs. Although the messages on Twitter are short and have limited information, many researchers are looking for a set of mass movement that allow to discover interesting and useful patterns such as social/natural events or social customs/culture [8]. All this is possible because of a location and a time-stamp that are involved into many posts in social networks.

For instance, Singh, Gao, and Jain are applying spatio-temporal-thematic data for generating social images. It means the regions with higher activity level concerning swine-flu, for example, will have more intensive pixel values on the images generated by the program [9].

Drawing on these facts, a city's culture and pace of life can be observed by geo-located social data. There are a growing amount of studies on making sense of the location specific digital data, like instant posts on microblogs. Therefore, it is inspiriting for us as artists to apply this phenomenon for performative and artistic means. The following paragraphs of the paper are dedicated to the concept and the realization of the art project. The related artworks are introduced as well. Moreover, it is aimed to position the art piece within the art disciplines and discus related artworks.

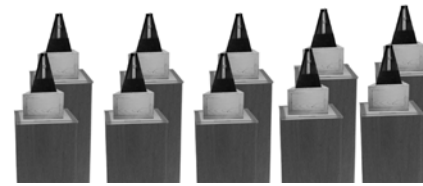


Figure 1. The sketch of installation's set-up

CONCEPT

The Rhythm of City has multiple layers of concept. First of all, geo-located data are translated into the mechanical rhythm of a metronome. The same rhythm represents a city's pace of life. We believe that people's activity in the social networks can be applied for describing a location's culture and living rhythm.

Second, there is a twist from digital to physical. The digital data are translated into physical kinetic motion and mechanical sound. Thus, the meaning of information has been altered and applied for totally different purposes. To be more precise, the same has

happened with a metronome – the device has been given totally new and unexpected function from its' original one.

And finally, the users of geo-located services are influencing the rhythm of a metronome in real time. In other words, the online audience of selected locations is a part of physical installation.

It constitutes that The Rhythm of City is an installation that can be viewed as an open performance [7], which score is based on geo-located data. Even more, online users of the selected social networks are influencing the score in real-time. Or to put other way round, the art piece is a real-time artwork as suggests Jeffrey Crouse in his master thesis [5]. He states that this kind of genre of art comprises two distinct parts: the information source(s) and the work it self. The art piece on its own gives a new frame for the data source, and at the same time, alters the meaning of it. Hence, the information does not stand for the information anymore, but for something totally different. In the case of The Rhythm of City the geo-located information of sources are transformed into a rhythm of a metronome in real time. On the other hand, The Rhythm of City can be seen as mixed reality installation cause it crosses and blurs the borders of virtual and physical. Taking into account both theories, we propose to categorize the artwork as a real-time mixed reality art piece.

What is more, the artwork goes beyond a sonic installation. It can be viewed as a representation of a city's rhythm or a its' pace of life. In other words, the rhythm of a metronome is an interface of a city. Through observation one is able to make a conclusion on the tempo in certain city and compare different locations between each other. Hence, the installation can be perceived as a performance by 10 metronomes representing different cities but also one is able to observe a single metronome and listen to a specific city, if it is wished so (Figure 1.) The installation is a sonic and at the same time visual interface for perceiving the urban life and culture of different locations. Moreover, we would like to give an alternative meaning and purpose to the location-specific invisible online data. In short, the artwork makes invisible information visible and audible.

We have chosen metronome as a performing tool and representative of a city because of its ability to produce different rhythms and its' unique nature of functionality. It should be underlined that The Rhythm of City is not a typical work of data visualization. On the contrary, we are approaching globalization and cities' life from an artistic point of view and creating an experience out of it. The Rhythm of City always offers a unique experience to its audience cause it is driven by unpredictable digital data that are generated by online users in real-time. According to the fact that the artwork is a unique experience for viewers, the statement of Walter Benjamin concerning aura-less artworks in the age of mechanical reproduction [2] does not have a ground. We are drawing on the article by Botler et al. that questions the aura of mixed reality works, the art pieces that are between the virtual and physical world. And therefore exist at the boundary between reproduc-

tion technologies and older forms, to which Benjamin ascribed aura [3]. The authors suggest that mixed reality works re-gain aura in a new [4].

When it comes to the reason for using metronomes, in 1962 György Ligeti composed Poème Symphonique for 100 metronomes. 100 metronomes performed the piece and each of them was set in a different speed [15]. Accordingly, current art installation can be viewed as a musical piece as well. But what is more important, the rhythm of certain metronome will be controlled by the social data of certain city by its' inhabitants. And thus, has its own meaning. We believe that The Rhythm of City is an original artwork in terms of visual and audible experience for the audience.

REALIZATION

In order to achieve the most accurate rhythms of cities, multiple social networks as the sources of social data are used. To be more specific, according to the selected cities the recent geo-located social data from Twitter, Flickr, and Youtube are retrieved every minute. Thus, for each location the score is composed periodically.

The score is a combination of recent social activities in the three social networks. The location-based trends of social sites are gained from Alexa.com, the web information company [1]. This institution presents a trend list of online services sorted by countries.

In short, the software robot of The Rhythm of City gets the number of posts from the social platforms in the last minute and converts them into the rhythm of a city taken into consideration the proportion of each social network. All this is repeated every minute (see Figure 2. for more details).

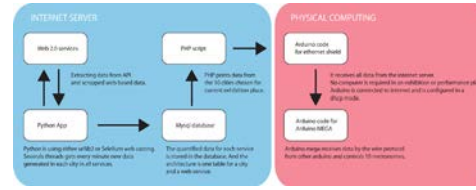


Figure 2. The architecture of "The Rhythm of City" software realization

Explaining the dedicated software of the artwork, the desktop application was developed in Python. The specific programming language was chosen because Python is an optimal solution for creating web crawlers. Web crawlers is a software-based search robot, known as well as web-spider that analyses web according to the target [16]. In this case, web crawlers is looking for the social data appeared in the last minute on selected social services and afterwards counts the new input. The query of search robot is location specific. It means the program is looking for the new social data only in the declared cities.

The database was created in MySql for storing the information gained from web crawlers. All location specific values that are used for generating the rhythm of each metronome are placed into the database. The script written in PHP extracts the values of rhythms for each city from the database and prints to the dedicated web page.

Continuing with physical part of the project, it consists of modified metronomes and microcontrollers. Arduino (microcontroller) with an Ethernet shield is connected to Internet in order to obtain the scores of the metronomes every minute. The score from 0-255 is translated to the different rhythms by Arduino Mega (the second microcontroller) and forwarded to the servomotors.

The metronomes displayed in the installation had been modified: inside each of them is placed a servomotor that is realizing the

tempo of metronome forwarded by the microcontroller Arduino Mega (Figure 3).

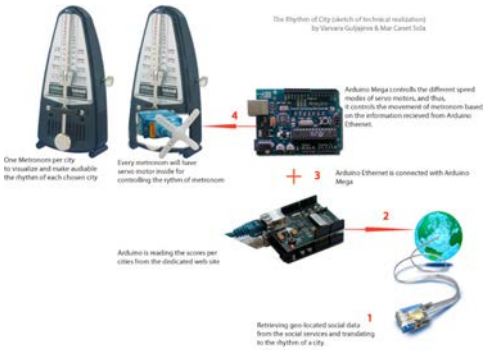


Figure 3. Technical realization

Limitations and reasons for applying certain social networks Twitter, Flickr, and Youtube were selected for extracting social data for several reasons. First of all, these social services are widely used all over the world [1] and have been applied for describing epidemics and other social events in several studies [8, 9]. Therefore, the score that is a proportional combination of users' activity within these social networks is reliable and realistic for representing the rhythms of cities. Moreover, the project is one of the few ones that apply a combination of data sources and evaluate their importance. Normally just one source, for example Twitter, is applied for extracting and translating social data.

The second reason for selected specific social application was available search by a city. For example, Google provides the geo-located search by country only. It means one is not able to look for the geo-located posts by a city [7]. Only solution would have been to search for the posts concerning certain locations or look for data by a country. However this solution did not serve our needs exactly. Thus, Google as a data source was rejected. Opposite to Google Twitter, Youtube, and Flickr support search by city in real time and therefore were applied in the project. However, it is possible to expand the number of used social networks, and thus, make the rhythms of places even more accurate. For example, Wikipedia could be considered as an additional source for score calculation.

Concerning further limitation, it is important to point out that certain social networks are banned in some countries. For example, Youtube, Twitter, Facebook, Google and some more web sites are blocked in China [17]. It constitutes that it will be difficult to include any Chinese city to the installation.

RELATED WORKS

The explosion of web technology and digital culture continue to be an inspiration for many artists. Moreover, virtual environment is applied as an artistic medium often. For example, TheSheepMarket.com by Aaron Kobin is a collection of 10,000 sheep made by workers on Amazon's Mechanical Turk [11]. This artwork becomes a mixed reality work once the collection is printed. However, this project cannot be viewed as a real-time art because there is no in- or out-put of real time data.

Introducing some examples of mixed-reality and real-time art, Julian Popp has done significant art pieces in this area. For instance, Bit.Fall is an installation that displays the most popular keywords of current on-

line news. The words, extracted from online sources, can be read only for some seconds while the water drops are falling. In this way the artist draws a metaphorical parallel with the instant and rapidly changing virtual world. Surprisingly in this work the water has an information carrier role. Julian Popp is strongly influenced by modern culture, and thus, lots of his artworks, like as well Bit. Code, are drawing on data and cyber culture [13].

An art piece from 2003 by Jonah Brucher-Cohen called PoliceState, is another perfect example for applying digital data as a concept and a medium that affects physical matter in real-time. In this case, PoliceState points out the fact that certain governmental organizations, like FBI, are snooping users on Internet (emails, posts on blogs, instant messenger, etc). The artist has developed a software script that makes use of the data being "snooped" by the authorities and turns it into the radio signals that control the toy police cars. Thus the police become puppets of their own surveillance. This signifies a reversal of the control of information appropriated by police by using the same information to control them [4].

Introducing one more related artwork, eCLOUD by Aaron Kobin, Nik Fafermaas, and Dan Goods is an installation in public space that uses the data of online weather forecast for creating a behavior of the artwork in real-time. eCLOUD consists of multiple liquid crystals, which are turned on or off based on the weather. It constitutes, the artwork has a behavior and reaction on the environmental conditions [6].

In the end, we would like to draw attention to the fact that the art world is concerned about and strongly influence by digital culture. Even more, artists are eager to bring virtual events into the physical world and use digital data as a medium for the artistic work. Moreover, there are already several terms, like real-time art, data sculpturing, mixed reality art that aim to describe this kind of art.

CONCLUSION

To sum up, The Rhythm of City is an interdisciplinary artwork that challenges art theories and contributes to a new emerging art genres, like real-time and mixed reality art. But what is more important, the artwork introduces a unique experience to its audience. Suddenly it is possible to see and hear the cities' pace of life that is performed by mechanical metronomes. The score is unpredictable and never repeated cause it is composed by the online users of social networks in real-time.

References

[1] Alexa, Web Information Company. http://www.alexa.com, accessed on 10th October 2010

[2] Benjamin, W. (1936). The Work of Art in the Age of Mechanical Reproduction.

[3] Bolter et al. (2006). New Media and the Permanent Crisis of Aura. In Convergence. 2006; 12: 21-39

[4] Brucker-Cohen, J. PoliceState. http://coin-operated.com/2010/05/03/policestate-2003/ (accessed on 15th October 2010)

[5] Crouse, J. (2006). Switchboard. A Real-time Art Toolkit. Master thesis in Georgia Institute of Technology

[6] eCLOUD, http://www.ecloudproject.com/ (accessed on 15th October 2010)

[7] Eco, U. (1989). The Open Work. Cambridge, MA: Harvard University Press

[8] Fujisaka, T., Lee, R., Sumiya, K. (2010). Exploring Urban Characteristics Using Movement History of Mass Mobile Microbloggers. Lecture Notes in Computer Science, Volume 6193/2010, 374-384

[9] Gao, M., Jain, R., Singh, V. K. (2010). Situation Detection and Control using Spatio-temporal Analysis of Microblogs. Poster in WWW'10. Raleigh, NC, USA, April 26-30.

[10] Google. (2010). Advanced Search. http://www.google.com.au/advanced_search (accessed on 18th October 2010)

[11] Kobin, A. (2010). TheSheepMarket.com. http://www.aaronkoblin.com/work/thesheepmarket/index.html (accessed on 15th October 2010)

[12] Levine, R. (1999). The Pace of Life in 31 Countries. In Journal of Cross-Cultural Psychology, Vol. 30, No. 2, 178-205

[13] Lovel, S., Decode: Julius Popp interview. In Wallpaper, http://www.wallpaper.com/art/decode-julius-popp-interview/4135 (accessed on 15th October 2010)

[14] Mitchell, W. J. (2004). Me++. The Cyborg self and the Networked City. London: MIT Press.

[15] Steinitz, R., György Ligeti (2003). Music of the Imagination. Boston: Northeastern University Press.

[16] Wikipedia, Web crawler, http://en.wikipedia.org/wiki/Web_crawler (accessed on 10th October 2010)

[17] Wikipedia, List of websites blocked in the People's Republic of China. http://en.wikipedia.org/wiki/List_of_websites_blocked_in_the_People's_Republic_of_China (accessed on 11th October 2010)

[18] Wirtz, P; Ries, G. (1992). The Pace of Life - Reanalysed: Why Does Walking Speed of Pedestrians Correlate With City Size?. In Behaviour, Volume 123, Numbers 1-2, pp. 77-83(7)

Translators of Data to be Excluded

Aestheticization and Empiricization of the 'Unrecognized'

Ebru Yetiskin
Istanbul Technical University
ebru.yetiskin@gmail.com

Today the urban citizen is a passport number, a social security number, a color in the market research segment or a vote. The desire for political and economic mobility in the cities seems to be based on the intense labor of data for the sake of capital flow. The labor of data is amalgamated from scattered centers of generalization, categorization, calculation and identification where these can range from individuals to state and commercial institutions, corporations, research laboratories and modern art museums. These are also the translators of data to be processed. They distinguish the useful, the irrelevant and the redundant to be processed and transmitted as a functional basis for reasoning. The translators should be considered both as a mechanism and a method that produces factual information. And, they scrutinize data to control and/or elude governance in the urban context. But there seem to be more than this. Translation involves the power to control the production of data and accordingly translators adopt this power to decide whether which elements should be included or excluded. Therefore data incorporates a two-fold process that consists of exclusion: 1 (the irrelevant which cannot be considered as a fact to be processed to form data 2) the quality of data which can be considered as irrelevant to be excluded.

The production of data involves the performance of translation as a process. To translate is simply to read heterogeneous elements comparatively. Translation is also to appropriate and to express this comparative information in a purified way that others can make sense. For this reason, translation can be considered as an operative action and function of constant modulation and purification. Latour (1993: 10 – 11) stresses this double operation of translation by questioning whether we are modern. For him, the word 'modern' designates two sets of entirely different practices. The first set of practices, by 'translation', creates mixtures between entirely new types of beings, hybrids of nature and culture. The second, by 'purification', creates two entirely distinct ontological zones: that of human beings on the one hand; that of nonhumans on the other. He also adds that without translation, the practices of purification would be fruitless or pointless; and in turn, without purification, the work of translation would be slowed down, limited, or even ruled out. One can observe in the rhetoric of Latour how dialectical forces interlock and relate. However, it is even more striking that he draws our attention to the use of pre-determined distinctions, categorizations, identities and descriptions (such as nature vs. culture and human vs. non-human) to generate a difference within translation. This can also be read as difference in repetition and in a Deleuzian sense, a "fold", which is

basically a critique of archetypal accounts of subjectivity.

Following this conceptual line of argument, rather than simply repeating and multiplying those that produce and use data to be excluded merely on behalf of the capital flow, this paper will concentrate on artistic productions that critically challenge the hegemony of self-centered economic and political desires and interests. Then, perhaps one can discuss this processual data production as a new form of social and political action that precedes the economic as well. By focusing on the research of contemporary artists who engage with new media practices, alternative communicative interfaces, site-specific installations and art-science collaborations, this paper, from a symptomatic perspective, aims to discuss "how" data is excluded in the translation process. Translation here is concisely conceived as a contemporary political, economic and social action. It will also be discussed whether "data-city" is a territory in which information is processed for reasoning. Besides, the contemporary artists to be discussed in this paper are considered as translators of data to be excluded.

Before concentrating on the new media artworks as symptoms of intellectual and practical transformation, a few issues have to be clarified with regards to difference in repetition in the process of translation because right at this juncture, the problem lies on an extremely thin sheet of ice. One can find itself abruptly falling in perishing water if there is a lack of meticulousness in critically dealing with the problem. It could simply be intricate for one to read heterogeneous elements in a comparative way and to capture the unfolding of folds by difference in repetition. Rather than trying to figure out the meanings repeated by the artwork, one needs to consider the difference of the artwork's function as Deleuze poses to an artwork is not "What does it mean?" but rather "How does it function?" (Smith, 2003) In other words, it seems vital to explore the artworks that do not function to "represent" but rather to construct a reality that is yet to come, a new type of reality.

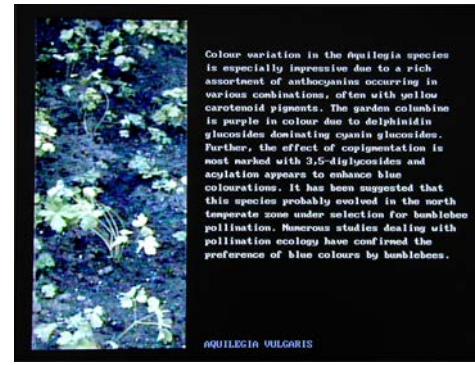


Figure 1. Unseen: A Nature Interpretation Centre with Second Thoughts, Marc Böhlen, 2002-2003

"Unseen: A Nature Interpretation Center with Second Thoughts" of Marc Böhlen questions and criticizes the credibility and stability of positivist knowledge which is empiricized with factual data. Set in the Reford Gardens in eastern Québec, the multi-camera real time vision mechanism observes select plants indigenous to the region. Using data analysis and classification techniques, the mechanism searches for instances of these plants. Short texts depict factual knowledge on the select plants. However, the content of the texts changes over the course of the

summer. As the initially sparse garden grows luscious, the system alters the nature of the texts from descriptive to hypothetical, confronting the visitor with imagined future plant scenarios. This is a new type of reality, a potentiality that the artwork constructs as a reality that is yet to come along with data. By simply and mechanically repeating the research method of empirical science, Böhlen generates a difference by processing, therefore translating data in a singular form. To construct a new reality, the unrecognized is aestheticized and empiricized within the process of translation. However, it should be noted that the aestheticization and empiricization of the unrecognized involves 'some' data to be excluded as well.

Figure 2. Unseen: A Nature Interpretation Centre with Second Thoughts, Marc Böhlen, 2002-2003

The production of data to be translated involves certain ways of exclusion according to the critical judgment of those that translate the 'unrecognized'. To be more precise, the unrecognized could be the self, a policy or another perception of a city (life) or of a governance technology. What is at stake here is how exclusion is being executed in the process of translation. According to this question then it may be possible to discuss whether translation can offer possibilities of revealing new potentialities that can generate the transformation of ideas and actions in data-city.

Böhlen deals with the unrecognized by tracing minor differences that flee from sedentary and hegemonic knowledge/power production. Displaying the very slow change of plants, the knowledge about the observed plants also transforms within a dynamic text. Therefore, Böhlen's "Unseen" functions as a call for an active research that has a competence to produce constant modulation. It deterritorializes and takes the control and order away from sedentary territories, such as nature and scientific culture, which are already established. Using its own power, it produces an alterity. Moreover, not by transcending but by internalizing the distinction between the ontological zones of human and nonhuman, he creates a new reality by focusing on the 'pace' of the transformation process so as to it can be recognized.

Although the urban context and the urban citizen are excluded as data in the translation process, one can find it as a difference in repetition or, put it Deleuze's concept, as a "fold" since the city is contained in the outside of the city. This fold allows us think in a different manner about the production of subjectivity, and ultimately about the possibilities for, and production of, 'non-human' forms of 'subjectivity'. Since numerous government and private agencies are working towards large-scale biometric identification systems, "The Open Biometrics Initiative" of Bohler challenges the fabrication of automated biometric identification. It incorporates the excluded as data to be translated, that is the challenging and loose classification of data. Bohler and "The Open Biometrics Initiative" question the "validity" of fingerprint identification policy, which is becoming more and more prevalent in control societies. It suggests that since biometric classification is a probability problem, it can only be correct to a certain degree. Consequently, this system does not interpret the

results in a reductionist binary manner, but offers only a probabilistic result.

Figure 4. Human Browser, Christophe Bruno, 2010

As "translation remains dependent upon the language skill of the majority" (Spivak, 2009: 214) some data can be excluded with the aim of addressing a larger crowd. Due to destruction and marginalization of hegemonic and pragmatic ways of understanding, the production of data can be questioned within this processual phase that may also serve to mediate control and reconcile the dialectical strand for the sake of capital flow. Once again, considering the fact according to the majority and excluding the minority reflects the crisis of representative democracies. In other words, the representative aspect of political and economic life is folded within the biometric identification mechanism. The exclusion of the minor is considered as if the minor does not exist. Although the minor does exist, it is not counted, validated and recognized. The finger print analysis application in this automated biometric identification mechanism calculates and prints the characteristic points together with their coordinates, type code (ridge ending or bifurcation) and color-coded likelihood as a probabilistic ID card. The popularization of biometric analysis has made the procedure too "easy", in the sense that the results are too "effortlessly" construed to mean what they only imply. Applied on a large scale, "this efficiency driven approach will guarantee errors that are difficult to assess because the internals of the system are not shared, therefore excluded in translation", says the work by, once again unfolding the fold.

In order to maintain the coexistences of metastable states in accordance with the capitalist flow, translation of heterogeneous elements becomes crucial "for a while" then. For urban citizen to act in accordance with the capitalist flow, something familiar is required to take the first step easily, effortlessly and efficiently to control. In data-cities, "control is made of codes that mark access to information, or reject it. We no longer find ourselves dealing with the mass/individual pair. Individuals have become 'dividuals' and masses, samples, data, markets, or banks" (Deleuze, 1990). Since modernism is a process, which has started with the deterritorialized peasants' migration from rural to the city and their becoming of labor in the urban settings, it also becomes a code that mark access to information or reject it. Using these codes, the translated data as a communicative mediator and a modulator is deemed to be human and non-human without making a distinction in the urban reality and accordingly in the data-city.

With the advent of global symbolic networked structures of the web 2.0 like Google, has become an extensive tool for effacing the distinction between human and nonhuman. As a technology of surveillance and

control, its economic dynamics relies on trend analysis and prediction of what one thinks at any time so as to statistically analyze behaviors, beliefs and desires as data. Human beings then are not considered as individuals but rather as statistical data sets that constantly provide information for the sake of capital flow and market growth.

For instance "Human Browser" of Christophe Bruno is a series of wireless Internet performances based on a Wi-Fi Google hack. The actor hears from a headset a text-to-speech audio that comes directly from the Internet in real-time. The actor simply repeats the text as she hears it, and a program that hijacks Google, diverting it from its utilitarian functions, fetches the textual flow. Depending on the context in which the actor is, keywords are sent to the program and used as search strings in Google so that the content of the textual flow is "always" related to the context. This is the control inherited in the translation process. In Bruno's translational work, it is criticized that if the content does not conform to the general deductive context, which is pre-determined according to the majority of data collected, then the mechanism of control cannot function. It loses its raison d'etre.

Bruno emphasizes that "freedom of speech is revealed to be the prerequisite for the scientific colonization of intimacy" in the urban settings. With this thought in mind, the artist critically questions the functionality of the standardized and homogeneous contexts by performing the dysfunctionality of communication technology. By uncovering of a 'strange language within language', in "Human Browser" there is an atypical and asignifying form of expression that exists at the limits of language. This is a fold that opens human out to that which is specifically nonhuman - forces that can then be folded back 'into' herself/himself to produce new modalities of being and new means of expression. As new data introduces a mass of alternative explanations to translate, it can be enmeshed to produce intricate power relationships and hierarchies to control and/or elude actions and Ideas in the cities, perhaps for "possible cities".

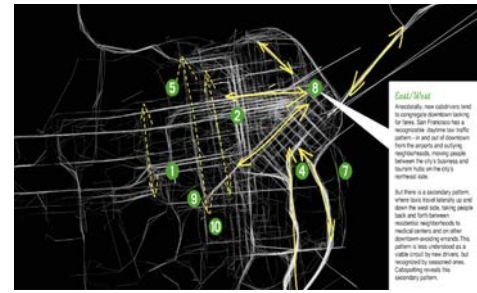


Figure 5. In Transit, Amy Balkin, 2010 - ongoing

Fleeing from the data-city and exploring these possible cities, "In Transit" of Amy Balkin, is an experimental artistic project that attempts to criticize and transform the pre-determined structure of the city by a map that sits on top of the cab spotting data. "In Transit" overlays statistics, questions and scenarios across ten sites in San Francisco. The project uses the GPS data trails drawn by cabs as a starting point for looking at the city, and trying to find and make social sense of patterns that constantly emerge visually from the data. The work challenges to generate innovative ways of conceiving the public domain outside current legal and discursive systems by constructing cartography of subjectivities. As Deleuze and Guattari (1987:12) emphasize, "What distinguishes the map from the tracing is that it is entirely oriented toward experimentation in contact with the real", the dynamic map of "In Transit" excludes the reproduction of an unconscious closed in upon itself.

"In Transit" is open and connectable in all of

its dimensions; it is detachable, reversible, and susceptible to constant modification and modulation. Balkin's research can also be considered as a difference in repetition in translational process of data as well as a fold because it no longer figures human as a limiting factor on the infinite (the classical historical formation), nor positions human solely in relationship to the forces of finitude - life, labor and language (the formation of the nineteenth century's urban context). Rather, it is a fold in which a 'finite number of components produce an infinite number of combinations'. It is a system of modeling unconscious subjectivity, that is, "a certain cartography made up of reference points that are cognitive, but also mythic, ritualistic, and symptomatological, and on the basis of which it positions itself in relation to its affects, its anxieties, and attempts to manage its various inhibitions and drives" (Guattari, 1996: 197). "In Transit" of Amy Balkin is in search of a different form of subjectivity as well as tracking of commonality in the translation process of data, which is excluded in the dominant urban structures.

Figure 6. Knowmore (House of Commons), Keith Armstrong, 2009

What is folded in the artwork by the excluded data is the included, the inherent. Immanency seems to appear as a quality produced at the meeting-point of multiple components that are relatively mutually autonomous - in certain cases, openly discordant. Contemporary upheavals call for more responsible political and social actions that have an emergent ethical aspect. Then, what is at stake becomes how the translator makes this call accessible today?

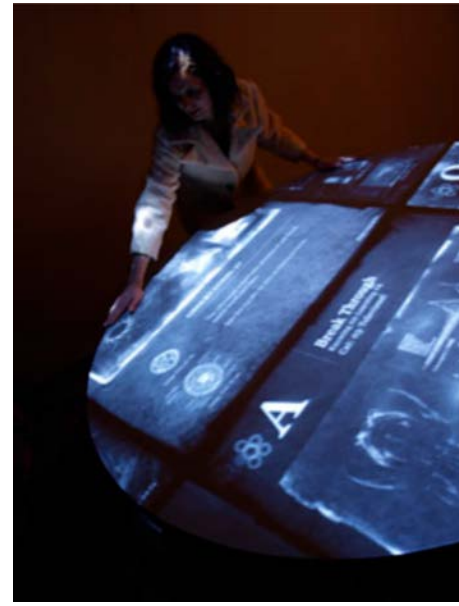


Figure 7. Knowmore (House of Commons), Keith Armstrong, 2009

"Knowmore (House of Commons)" is an interactive installation, which questions how one participates. There is a strong call for creating awareness about the consequences of the choices one makes. As Simmel stressed that in the urban context one begins to lose its senses and the urban citizen act and participate by merely consuming the ready-made protocols that controls, "Knowmore" can be considered as an innovative translator that functions in a multi-level manner. Senses and actions of human are processed as codifying informational data in the translation of the work.

A large circular table spun by hand and a computer-controlled video projection falls on its top create an uncanny blend of physical object and virtual media. Participants' presence around the table (the circular form is attached to the assemblage of citizens for a common purpose) and how they touch it is registered, allowing up to five people to collaboratively 'play' this deeply immersive audiovisual work. It is aimed that the participants are 'transformed' through their interaction with the practice. One does not transform her/his position, mind, perspective, method by making a conscious decision here, the change occurs within the processual dynamic action that is created by the artwork as well as the artist. Armstrong asserts that "'Knowmore (House of Commons)' considers the urgent need for us to better celebrate and care for that which we share in common: the cultural and biophysical environments that fundamentally sustain all life today. This critical shift in thinking and action requires us each to envision new ways to re-orientate our everyday life choices in ways that better respect that which is shared by all: 'The Commons'".

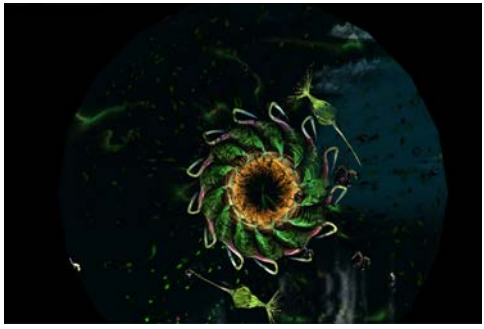


Figure 8. Knowmore (House of Commons), Keith Armstrong, 2009

It is not the meaning but the form, which gives multiple functions to the artwork as well as the participant, is at stake here. The interactive process is open to an exchange of ideas. The translational process of data in "Knowmore", a subjectivity, which is a topology of different kinds of folds, is produced as the work has three interactive modes of relational folds: 1) pressure mats which detect position 2) a sensor to detect the speed and angle of spin of the table top 3) a camera tracking system to detect position of hands moving over the table top. First, the participants are oriented to use the table by playing with a cyborg-like image so that they can realize the work is transforming according to the data collected from them. One of the participants of the artwork, Gregg Hooper stated, "The movement of the spinning hand is across the body and works against primary gestures of incorporation and repulsion". With this commentary, it becomes even more evident that Armstrong is challenging the conventional ways of thinking and acting. The participants are also informed through database cells about how they are controlled by power-knowledge so the effect of the self on the self is produced in a folded manner.

The work therefore asks what kind of resources and knowledge might be necessary to move us past simply knowing what needs to be changed to instead actually embodying that change. Aestheticization and empiricization of the unrecognized here is the discovery of new combinations - new ways of folding the world 'into' the self, or, more simply, new kinds of subjectivities. "Knowmore" encourages new relationships and new experiences by translation. The exclusion of data that were not processed also shared in the artwork, but with a difference in repetition. The protocols of the work, is constructed and represented as observations in a purified way for others to make sense. For instance, it is stated in one of the data cells "in the observation 3, the action of language and knowing are of different registers". The excluded data is the merge

of language and knowing; accordingly the hegemonic discursive power relationship of control societies.

CONCLUDING REMARKS

The data-city involves a proximity to the distinction of nature and culture as well as non-human and human. These contemporary new media artworks offer new ways of reading and translating by the immanence of these distinctions. The hybrid being of nature and culture is performed in the processual translation of data. On the one hand, the devaluation of the meaning of life provokes the fragmentation of self-image: representations of self become confused and contradictory while, on the other hand, the conservative forces of resistance oppose themselves to all change, which is experienced by a secure, ossified, and dogmatic consciousness as an attempt at destabilization. Consequently, it can be concluded that the contemporary research of artistic practices that traverse the aesthetic and analytical dimensions, functions as a political and social action that translate data to be excluded, but repeated in a different way. Aestheticization and empiricization of the unrecognized is unfolded in the folds of modulation. These translators of data to be excluded call for a new social and political reality and a "democracy to come", in a Derridan saying, that is a democracy which can no longer be contained within sedentary boundaries that depend merely on the predetermined decisions of a specific group of citizens or of nations to serve exploitative economic ends but critically engages with the otherness inherent in one's self.

REFERENCES

Armstrong, K. (2009). Knowmore (House of Commons). from http://www.embodiedmedia.com/#/page/knowmore-house-ofcommons (Accessed 11 August 2010).

Balkin, A. (2002). In Transit. from http://cabspotting.org/projects/ (Accessed 17 September 2010).

Bourriaud, N. (2002). Relational Aesthetics, Paris: Les presses du reel.

Böhlen, M. (2002). Open Biometrics. from http://www.realtechsupport.org/repository/biometrics.html (Accessed 18 September 2010).

Böhlen, M. (2002). Unseen. from. http://www.realtechsupport.org/repository/unseen.html (Accessed 18 September 2010).

Bruno, C. (2010). Human Browser. from http://www.iterature.com/human-browser/en/ (Accessed 18 September 2010).

Deleuze, G. (1993). The Fold: Leibniz and the Baroque. Minneapolis: University of Minnesota Press.

Deleuze, G., Guattari, F. (1987). A Thousand Plateaus: Capitalism and Schizophrenia. University of Minnesota: Minneapolis.

Derrida, J. (1997). The Politics of Friendship. London: Verso.

Guattari, F. (1995). Chaosmosis, Bloomington, Indiana: Indiana University.

Guattari, F. (1996). Subjectivities: for Better and for Worse. Oxford: Basil Blackwell.

Latour, B. (1993). We Have Never Been Modern. Cambridge, MA: Harvard University Press

Smith, D. (2003). Deleuze on Bacon: Three Conceptual Trajectories in The Logic of Sensation, Francis Bacon: The Logic Sensation. USA: University of Minnesota.

Spivak, G. C. (2000). "Translation as Culture", Parallax, Taylor and Francis: London, Vol. 6, No: 1, p. 13 – 24.

Spivak, G.C. (2009). "The Politics of Translation", Outside in The Teaching Machine. New York: Routledge

Data, Presence and the City

Envisioning Information for Istanbul

The Study of a Guide Design as an Urban Visual Interface to Improve Usability of the City

Emrah Kavlak
emrah.kavlak@gmail.com

ABSTRACT

Istanbul has a complex structural organization. When mixed with its unique and dense socio-cultural features, the resulting urban environment confuses its inhabitants while performing in the city. Consequently, interactions and functionalities that the city offers become frustrating or useless. This project introduces an online city guide design for Istanbul to facilitate daily life of its inhabitants and to render urban information reachable and observable (Wurman, 1971). Different than a regular tourist guide in which the content is limited to points of interests or events, proposed guide intends to gather every tpossible information in the city within a single source and to let users create their own content on various media. Instead of a final product, the project offers a vision of web based city guide, a series of design methodologies and samples for its production through theoretical and practical foundations. (This is the simplified version of the author's MA thesis.)

Keywords: information design, city guide, user interfaces, urban design, product development process

INTRODUCTION

This is an information design project on a city scale. Its purpose is to reason about, document and preserve the knowledge in Istanbul. As a metropolis with limitless contradictions and interventions, functional problems - how to go to a location; get a new passport; collect an information - have a specific reason for being complicated: There is not enough or no information on how to act. Without naming every problem, to ease complexities related to functionalities and information retrieval in the city, a special type of city guide will be proposed.

The aim of the project is not to deliver a guide as a final product, but to offer a possible design process: To define what type of guide should be designed, to create an organizational plan, and to make design samples of what it can contain and look like. Thus, the kind of guide that this project proposes is a 'guide of the guide', which can be deciphered as "instructions for a city guide".

RAISON D'ETRE OF THE GUIDE

Guides are for showing us how to accomplish a task through various ways. In the case of unavailable, unreliable or faulty information, the time to complete the task can become much longer since the knowledge should be learnt through difficult ways. At this instant, the person might fall into a feeling of anxiety, which can be described as

"the most unpleasant and universal experience" that arises as a result of overstimulation which cannot be discharged by action. (Reichmann, 1955)

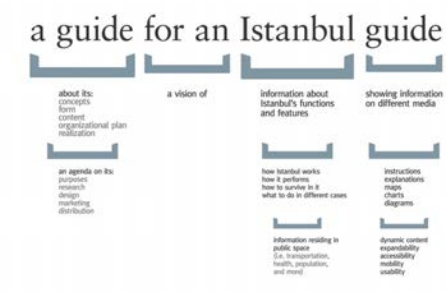


Figure 1. A brief schema explaining the concept of the thesis with keywords

Richard Saul Wurman identifies this experience of not being able to achieve the needed or requested information as information anxiety: Information anxiety is produced by the ever-widening gap between what we understand and what we think we should understand. Information
anxiety is the black hole between data and knowledge. It happens when information doesn't tell us what we want or need to know. (1989)

In the urban environment, without any reliable information, one can easily get lost. Information anxiety occurs in a same way but in a different context.

Kevin Lynch describes the state of getting lost in the modern city as a "rare experience" due to wayfinding systems, but when disorientation happens and the person gets lost, "the sense of anxiety" and terror appear. (Lynch, 1960)

Guides are the solutions for inaccessibilities of information or the middle layer between not knowing and knowing a subject, while increasing the awareness of the person.

DESIGNING A GUIDE

The presence of a guide does not mean that the user would understand the content in the right way. He / she can be mistaken and misunderstand the information; or the information can misinform the user, thus the guide is not
properly designed.

When people are unsuccessful to accomplish a task, they tend to blame themselves for their failures due to their incompetency or clumsiness, even though the task appears simple or trivial (Norman, 2002).

Regarding his "usercentered design" definition, Norman argues that in most cases the reason why the users can't operate on something is because of the faulty design and that the designer should be aware of the errors that the user can commit.

Designing a guide is not a mere visualization of knowledge. Design, as a verb and a noun has similar but distinct meanings. Kathryn Best defines this duality as "a process of making things (designing) and the product of this process (a design)" and states that the activity of designing is a user-centered, problem-solving process. (Best 2006). This process does not mean a singular type of practice throughout the design but several stages, which brings up a ground for multiple disciplines to merge, including research,

marketing and engineering. Pabini Gabriel-Petit explains this process as a workflow and he denotes that it is an evolving process:

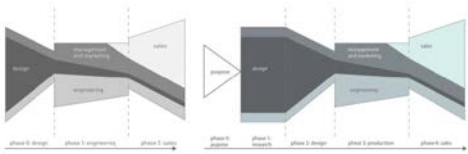


Figure 2a. (left) Buxton's product development process
Figure 2b. (right) the guide's product development agenda

User-centered design is, by nature, an iterative process, so what we discover through user research and usability testing often dictates the way a project should proceed. (2010)
This iterative process is best illustrated by Bill Buxton's product development process (Figure 2a). Although Buxton does not intend "to present with a deep treatise on some idealized design process", his model successfully summarizes the process within few departments, embracing how research, design, management & marketing, engineering and sales should evolve during the process in relation to each other. (Buxton, 2007). For this guide project, an additional step is inserted in the Buxton's diagram to explain the design process of the guide. (Figure 2b)

DESIGN PROCESS: PURPOSE OF THE GUIDE

What is this guide for?
This guide is for helping citizens on how 'things' work in Istanbul and for rendering the city explorable.

What are its aims?
I. Informing and instructing citizens about the functionalities in the public space to decrease urban confusion
II. Collecting all the possible quantitative and qualitative information about the city into one main source to increase accessibility
III. Clarifying existing information and creating new ones if it doesn't exist to enhance the simplicity
IV. Presenting the content in the same visual language and user-interface to obtain integrity of information.
V. Putting forward design objectives such as user-centered design to ensure a healthy connection between users and their feedbacks

Who are the possible users of this guide?
Regardless of any age, sex, profession, any person residing in or out of Istanbul, including: the ones who are living in it for a long or short time; who are visiting or about to come to Istanbul for traveling or accommodation; who need documentation for research; and who are just curious about Istanbul.

Why is this guide necessary?
I. Although there are several information sources aimed to show the functions of Istanbul, i.e. various guidebooks, billboards, signs, municipality and private company web sites, there is no integrity between these resources. (most users do not want to wonder through these sources)
II. Besides faulty or inadequate information, in most of the cases there is a gap of information. In other cases, people do not know how to reach the information.
III. Existing contents are mostly in Turkish and when a foreigner needs information, it usually is impossible without the help of a native citizen.

What should user expect from this guide?
- A user can expect practical solutions to situations where current information systems are ambiguous, inscrutable, or non existing. These solutions are in the form of visual explanations supported by textual informa-

tion when needed. As the scope is public space, solutions can range from wayfinding to municipal paperworks, from cartographic research to rental housing.

Figure 3a. Istanbul metro map, faulty simplifications of train routes

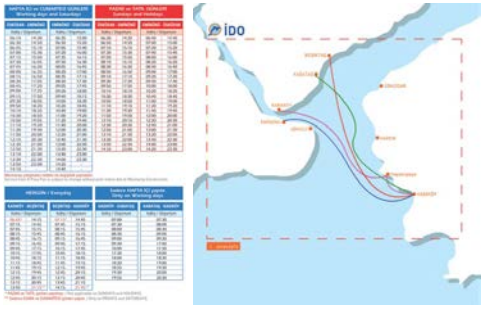


Figure 3b. , Figure 3c. Samples from IDO.com.tr - Istanbul seabus

Figure 3d. Sample from TKM.ibb.gov.tr - Live traffic mapping

DESIGN PROCESS: RESEARCH AND VISUAL DESIGN

As a starting point, current online and printed information systems of Istanbul were examined by their functionalities and visual interfaces. Regarding basic visual communication design foundations (layout, typography, color, and other topics), most of these resources showed weaknesses and unreliable design features[2]. (see Figure 3a) Results of a survey among twenty five people of different backgrounds also showed that only few of these systems were frequently used (IDO and TKM) because of their straight forward interfaces. (see figures 3b-3c-3d). Additionally, information systems in public transportations were reviewed to be inadequate because of their wide unavailability (i.e. wayfinding at bus stops).

For further incentive and examination, various examples were also examined considering similar arguments. Among these, Design Quarterly #80 (Wurman, 1971) showed to be resourceful for its content that has various brochures, maps and guides; and public transportation system of London had clear visual language and detailed information for daily use.[3] (See Figures 4a-4b-4c-4d)

The best concept to describe how people can still survive without enough information resources in Istanbul, is “informal public space”. The term explains how people socially communicate in the city to share information in public spaces. According to Sennett, face-to-face contacts and connections are still vital because of the personalized trust that they generate on what is being communicated. Thus, the shared information fills the gap of not knowing how to navigate in the city (Sennett 2009).

Information is considered as an interface between users (citizens) and the city. From

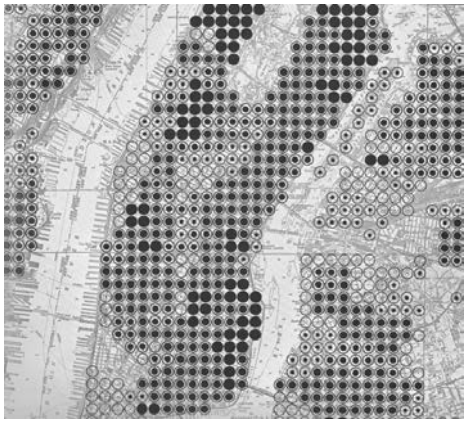


Figure 4a. DQ80 - Urban Atlas New York

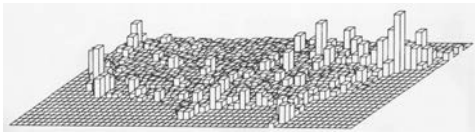


Figure 4b. DQ80 - population graph for USA

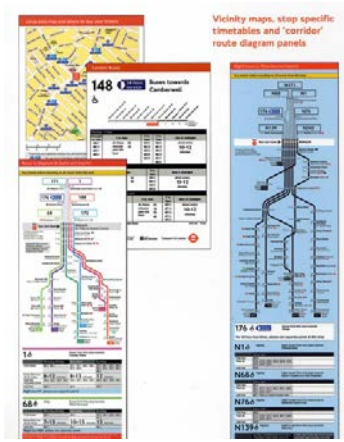


Figure 4c. London bus routes, as shown in bus stops

Figure 4d. London metro map

the perspective urbanism field, urban interfaces are defined as the inbetween spaces that are not appropriated by both urban planning and architecture (Bala, 2006). It is accepted as an ambiguous notion that users and designers are aware of but can not identify, a transition zone between private and public space. Here, the city is hypothetically acknowledged as a design object (a designed system / space) which has a lot of features and functionalities. Information in this sense is the layer that helps users to understand the city and to accomplish tasks in the city. Consequently, the guide is the incorporation of information, hence the interface itself. (Germen and Kavlak, 2010) This is why the project claims that the proposed guide is an urban visual interface, or more accurately an urban visual information interface.

To elaborate these research topics, a private workshop was held[4]. The main outcome of this multi-disciplinary gathering was the consideration of a design agenda for a guide that can update itself with the same speed of (Istanbul's) urban transformation.

DESIGN PROCESS: MEDIA AND INTERFACES

To let the guide offer a dynamic content and a practical daily usage, online and printed media is combined[5]. A web interface constitutes the backbone of the system and directs users to organize their own content. Depending on user search, dedicated options are provided, such as maps, diagrams, tables, and such elements. The main feature of the system is to let the user save desired contents in the system and create printable documents from those contents. (see Figure 5)

The job of the web page is to offer an interface for information query, visualize requested information, save desired information and create printable documents. The

user can integrate several information types by requesting charts, tables, diagrams with desired variables, or maps with overlapped information layers. These contents can be displayed anytime and reviewed if desired. A user account is necessary for saving operation. If the user wants to export saved information, the system either automatically organizes a layout or asks user to place the content to his / her choice. (see Figure 6)

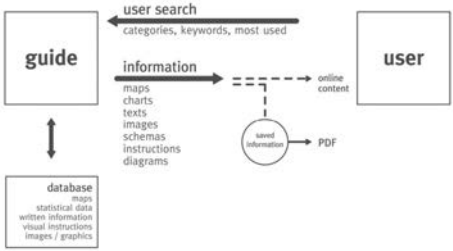


Figure 5. A simple diagram showing the interaction with the guide

As any content should be printable in size, information design (and graphic design) decisions depends on paper constraints. Printability is the main attribute of the guide. For this reason, the research showed how to benefit from the standard A4 ISO size, where each size is halved of the larger one. (Haslam, 2006) (see Figure 7)

Since A4 is also in the preceding sizes of ISO standard and it is the main one that is used in home and office printers, scales in the guide design was also based on A4 dimensions. The "halved size" structure also helps the A4 paper to be folded accurately. This feature is used to reduce the size of the printed document and make it easy to carry, even in a pocket. Moreover, since the sizes are proportionally resizable, printing the same document in larger format becomes much more easy.

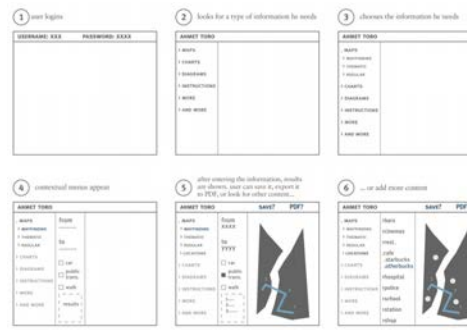


Figure 6. Possible ways of looking at the content on the web

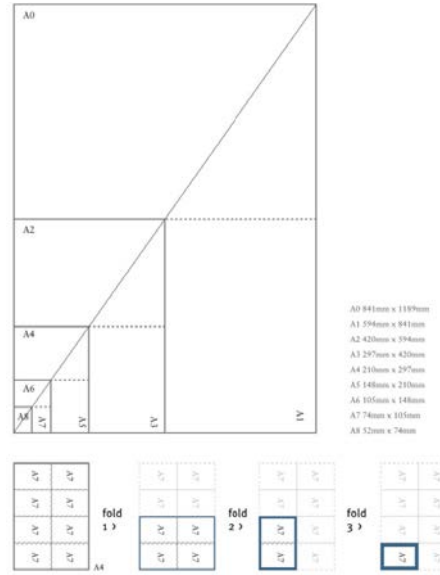


Figure 7. DIN size paper specifications

The combination of this web and printed interfaces has several methodological advantages:

I. The user can create personalized content

by combining or overlaying different types of information.
II. Since all the information is kept at one base, it can be used by both citizens, companies, organizations, and municipalities.
III. Regarding the second point, the display of the information would than be visually standardized. The same visual language used in different platforms and scales (i.e. bus stops or police stations) would facilitate apprehension of information.
IV. By creating a widely recognized digital document type (PDF), it can offer high accessibility among software platforms, including that used in some cellphone applications. Thus, content can be carried both physically and digitally.

DESIGN PROCESS: DESIGNING INFORMATION[6]

Maps: By using the latest Istanbul map offered by the municipality, a general purpose scaled map was traced. This map fragmented by all the districts and neighborhoods, and can be used to show data on areas. For wayfinding purposes, a geographically simplified version of the same map was created. While using lines on the map to show paths, a simplified map proved to be visually coherent compared to a fully detailed map. (Tufte 1997). (see Figure 8) Time tables: For space considerations, three different ways of showing compact time tables were sketched. Among these, one proved to be the most understandable, one was found to be complicated at first sight but clear after a look, last one was found to be totally complex. (see Figure 9) Layout: The page is divided into eight sections and all the contents can fit into these sections. Thus, the size of an information is called by the least amount of sections that it covers (i.e. a travel map can be of size four if every destination can fit in a map cropped in four sections). (see Figure 10) Basic shapes: Dots, lines, squares and circles are used to identify different types of information. When used on a map, these elements proved to demand more attention. For example, using the same type of line shapes and corners for every path on a map confused viewers in different ways. Even though when labeled clearly, because of resemblances and map reading routines, the confusion remained. (see Figure 11) Color: Colors were the main visual tool to differentiate information among multiple variables. The effect was best observed on maps. The use of light grey tones for background information (land) and white for negative spaces (sea) prepared a system for other colors to interact smoothly. Decision to choose grey and black colors in many areas was also for printing purposes, since black ink costs less. (see Figure 12)

Figure 8. Tracing Istanbul Map

Figure 9. Various timetable examples

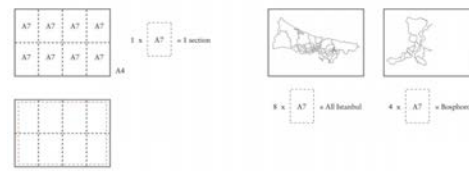


Figure 10. Folding A4 and proportions

Colors other than black and grey tones were only used when necessary, either when an information should be distinguished among others or when there is a direct association of a color in cartography or daily

use. To ease the interaction between colors, muted colors were selected. In maps, when necessary, light border colors were used to enhance perception of differentiation. (Tufte 1990).

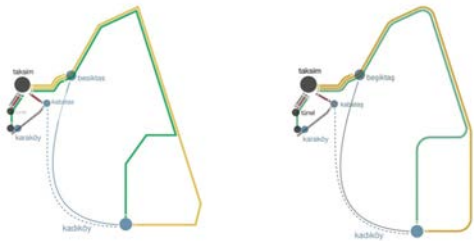


Figure 11. Early versions of the paths (left) and final versions (right)

Figure 12. Showing difficulties in selecting bright colors compared to muted ones

Typography and labels: In determining typographical features, since there are size limitations, readability of text was tested in several print samples. Although readability of text is higher with serif fonts, sans serif fonts are selected in maps to match the visual language and structural shapes.

DESIGN PROCESS: VISUAL DESIGN - USER SCENARIOS

see attachment for the content

DISCUSSIONS

The first survey about the current information systems of Istanbul showed that these resources were not used frequently due to their unreliable interfaces. Moreover, most attendees mentioned a lack of integrated information system even at expected locations, such as bus stops.

The second survey was done to determine the topics for sample user scenarios. Although most of the results were about wayfinding, additional propositions (such as municipality paperwork) were positively accepted.

User testing of the project was conducted (unfortunately) by four people. Users were asked to use wayfinding scenarios on the specified routes and give feedbacks of their usage. Although most of the visual language was found to be clear and easily understandable, the integration of the system to a mobile device application was the main proposition by the users.

FUTURE WORK

Given the design process model, a more detailed research must be conducted by gathering academics, executives, design practitioners, engineers. Moreover, an interdisciplinary research is an obligation for a healthier development process.

Although information design models and techniques were confirmed to be understandable by several users, more users should be tested while using design samples / prototypes. Given more accurate feedbacks, design elements should be modified (or even renewed if necessary) for a better design, until the best version is obtained.

Within the scope of the paper (and the thesis), engineering and marketing topics of

the guide design process were not focused and are left for further research.

CONCLUSION

In this paper, an initiative was introduced to reduce Istanbul's ability to perplex inhabitants. Instead of pointing out all the challenges that Istanbul has one by one, core reasons were looked at and possible solutions were discussed. By creating a design plan on how to make the guide, a possible path was depicted for this initiative. Thus, the content of this paper (thesis) is the first steps of a long and challenging design process that an interdisciplinary design and development team must

Reference

[1] A job, a mission, a purpose of any kind. Important or not, work or leisure.

[2] Refer to the thesis for the complete research

[3] Refer to the thesis for the complete research

[4] with the participations of Murat Germen (architect, artist), Can Altay (architect, urban artist), Dr. Kevser ÜstündaG (urban designer) and Ali Cindoruk (graphic designer).

[5] Refer to the thesis for the complete research

[6] Refer to the thesis for the complete research

Best, K. (2006). Design Management: Managing Design Strategy, Process and Implementation. AVA Publishing

Buxton, B. (2007). Sketching User Experiences. Morgan Kaufmann Publishers

Germen, M., Kavlak, E. (2010). Future Users, Future Cities: Dweller as Designer. eCAADe

Haslam, A. (2006). Book Design. Laurence King Publishing

Lynch, D. (1960). Image of the City. Cambridge. MA: MIT Press

Norman, D. (2002). The Design of Everyday Things. Basic Books

Petit, P. G. (2010). Design is a Process, Not a Methodology, UXmatters, http://www.uxmatters.com/mt/archives/2010/07/design-is-a-process-not-amethodology.php

Reichmann, F. F. (1955). Psychiatric Aspects of Anxiety. Free Press

Tufte, E. R. (1990). Envisioning Information. Cheshire. CT: Graphic Press.

Tufte, E. R. (1997). Visual Explanations. Cheshire. CT: Graphics Press

Güvenç, M., Yücesoy, E. (2009). Urban Spaces in and around Istanbul. Urban Age Istanbul.

Sennett, R. (2009). "Istanbul Within A Europe of Cities", Urban Age Istanbul.

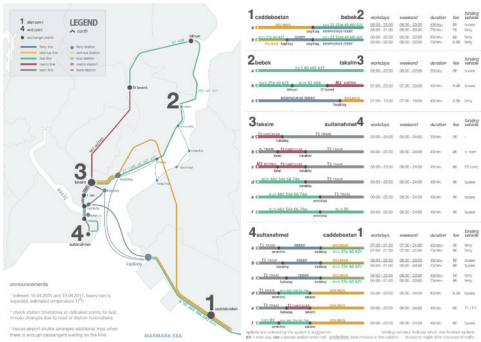
Wurman, R. S. (1989). Information Anxiety. Doubleday

Wurman, R. S. (1971). Making The City Observable. Design Quarterly 80, Walker Art Center & MIT Press

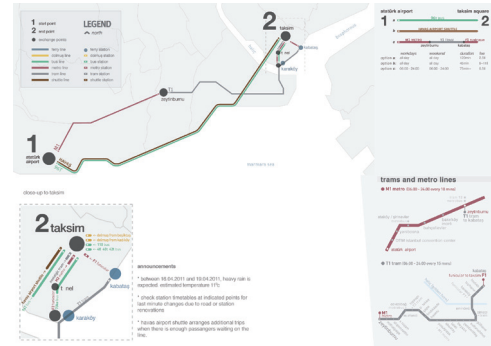
To design visual proofs for such a guide, a number of written scenarios were composed. With the help of a survey, a general opinion on what kind of information can't be found or needed in Istanbul was obtained.

In these scenarios, some of the data and information are speculated because the aim is to prove if proposed ideas and visual solutions make sense or not.

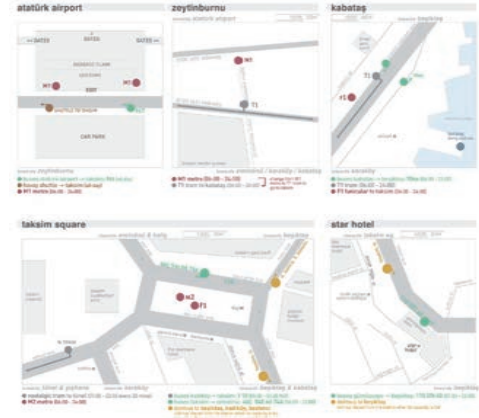
Furthermore, a series of other examples were also designed with the intent to show more possible use cases. Subjects in these examples are selected with the initiative of the author.



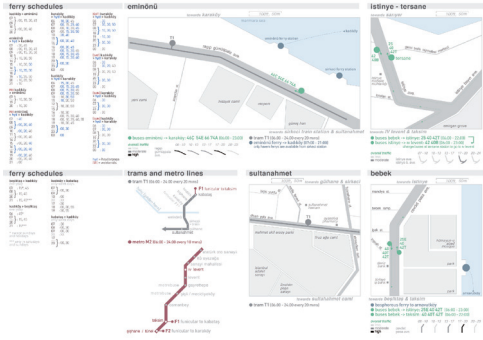
Scenario 1: Ali, a design professional, living in Caddebostan and working at Taksim, needs some instructions for tomorrow. During the day, he wants to go to Bebek for a meeting. After the meeting, he has to go to his office. In the evening, he has to be at Sultanahmet for an early dinner. Afterwards, he plans to go back home.

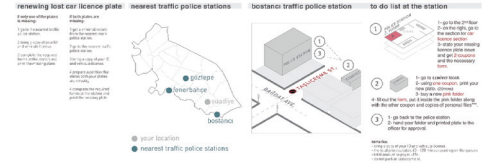


Scenario2: Tina, a tourist who is going to visit Istanbul soon, needs instructions on how to go from Atatürk Airport to Taksim, where the hotel she arranged is located. Since she has never been to Istanbul, for a precaution, she asks for station information as well.

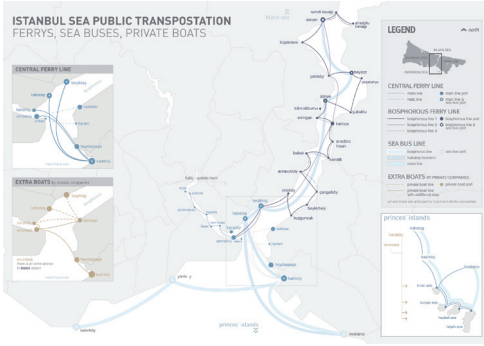


Scenario2 - back face

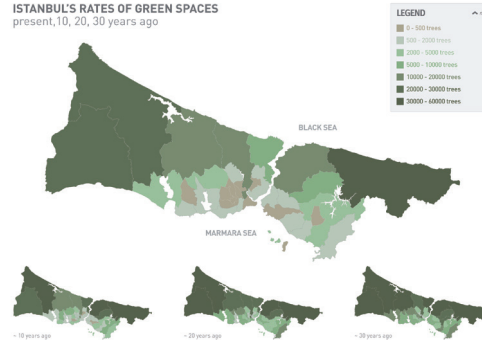




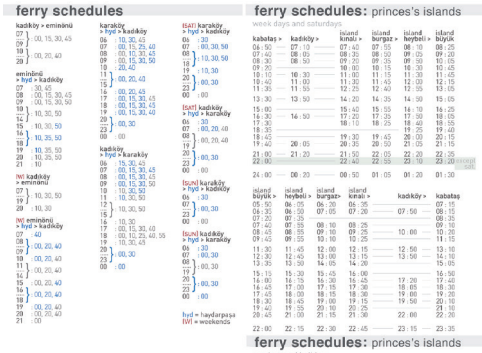
Scenario3: Emrah, who is living in Asian side, wakes up one morning and finds out that one of his car's license plates is missing! He checks what to do in a hurry and goes to Bostancı Traffic Station.



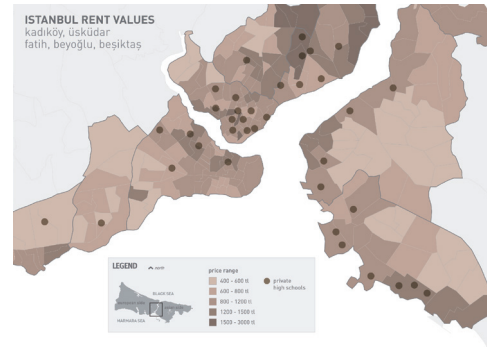
Scenario4: Selma, just curious about the sea transportation system in Istanbul, and wants to see all the options that she can use in the city.



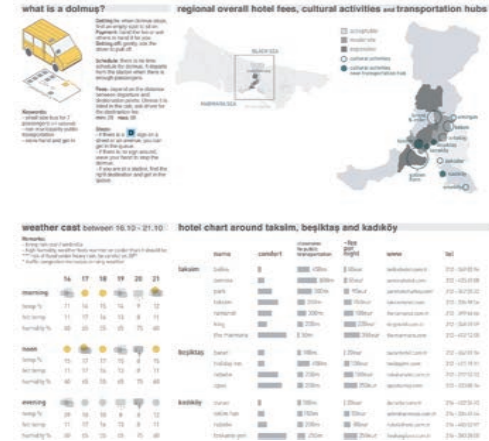
Scenario5 (speculated data) : Robert, a researcher in an environmental preservation institute, wants to see the present rates of green arean in Istanbul and compare it with the past years' values on a map.



Scenario4: back face



Scenario 6 (speculated data) Elif and Kerem, a married couple who lives in Ankara, want to move in to Istanbul. They are looking for a rental apartment and want to see a general map of rent fees. Additionally, since they have a young daughter, they want private school locations to be shown on the map, so that they could be nearer to her school.



Scenario 2 variation

GeoCity Mobile

Extending Boundaries of Urban Discourse

Roland Haring, Hideaki Ogawa, Bernhard Böhm, Christopher Lindinger, Horst Hörtner
Ars Electronica Futurelab
Ars-Electronica-Straße 1, A-4040 Linz
{rolandha, hideakiog, bernhardbo, christopherli, horstho, }@aec.at

ABSTRACT

Most of the information produced and archived by modern western cities, like statistical and historical data about the citizens and the environment of the city, are often difficult to find for people who are living in these cities and hard to understand for non-experts. In response to this situation this paper describes an approach to design a novel system for presenting data related to a city in an intuitive and metaphorical way. This research group aims to create new media installations for bridging the gap between citizen and urban data. In this research, we realized three installations named "Changing Linz", "SimLinz" and "SimLinzMobile". By providing different interaction modalities to generate and visualize views of datasets, the systems support new insights on statistical and real-time information of a city. The paper is a case study of urban information presentation systems that were built for permanent and mobile public installations in the city of Linz.

Keywords: Urban Information System, Tangible Interfaces, HCI, Multimedia, Presentation System, Interaction Design, Paper-Pen Metaphor, Symbolic Interaction, Tangible Interface, Maps, Public Opinion, Collaboration

ACM Classification Keywords
H.5.1 [Information Interfaces and Presentation]: Multimedia Information Systems – Artificial, augmented, and virtual realities; Hypertext navigation and maps.

INTRODUCTION

Since the raise of the modern western city, it is one characteristic of these cities that they are collecting and producing a lot of data about their habitants and their environment. Be it the current water - level of the adjacent river, the number of married people, or the food consumption during the last 50 years. Most of this information is stored in archives and difficult to find for people who are not involved in the process of collecting these data. Another problem is

that, because of the ever increasing amount of information, it´s impossible for a single person or a group of people to process all of this information and to generate useful knowledge out of it. As a result of this development we can observe an ever - growing gap between the knowledge of a city as institution and the knowledge of the city´s inhabitants.

According to this situation it´s the aim of the bellow described media installations to make this information available to the citizens of Linz and to bridge the gap between citizen and urban information by creating consistent media experiences within the context of information design, interface design and experience design. Based on our publication "The City at Hand: Media Installations as Urban Information Systems" [2], this paper describes an approach to design a novel system for presenting data related to a city in an intuitive and metaphorical way. By using interactive surfaces and the coupling of information with graspable physical objects, urban data, maps and live sensors built around the physical model of a city and can be used to engage discourse and civil participation.

This research group aims to create new media installations for bridging the gap between citizen and urban data. In this research, we realized three installations named "Changing Linz", "SimLinz" and "SimLinzMobile". By providing different interaction modalities to generate and visualize views of datasets, the systems support new insights on statistical and real-time information of a city. The paper is a case study of urban information presentation systems that were initially built for public installations in the city of Linz and that are now being brought to a new conceptual level by making them mobile and generally available.

LOCAL CONTEXT AND INVOLVEMENT:

Since the year 1963 the city of Linz maintains a public architectural 1:2000 scale model within the City Hall. The model with a dimension of 8.10 by 5.10 meters is continuously updated by hand to reflect the current development of the city. Laser pointers have replaced physical pointers during presentations to highlight special points of interest.

Beside this since 1946 the city of Linz had published an annual yearbook of statistical data containing thousands of datasets related to urban, political and sociological data . Furthermore the city of Linz has an extensive collection of orthographic photographs and current and historic maps. Integrating this data in an intuitive and comprehensive way was a core requirement for an interactive city model.

In 2007 we were invited to develop the first version of an interactive city model for Linz entitled "Changing Linz". In 2009 we realized the next iteration for a permanent museum installation called "SimLinz". Additionally we developed a pocket version of "SimLinz", called "SimLinzMobile". This mobile System allows us to go out of the Ars Elcetronica Center and to reach people who usually don´t visit a museum. Beyond that, this system opens up the possibility of using it in different contexts like schools or tourist offices. So in general this paper sums up these developments and intentions and describes the lessons learned.

MEDIA INSTALLATIONS AS A SOCIAL DISCUSSION PLATFORM ABOUT A CITY:

RELATED WORK

Interactive city models can nowadays be found in various interaction models, technical implementations and application

scenarios. 3D geo-information systems like Google Earth are available both as desktop and as web applications. Approaches using virtual and augmented reality provide experimental interface technologies both for installations [6] and mobile 3D maps [7] but often result in a high level of system and usage complexity.

To overcome these difficulties there had been many approaches integrating tangible user interfaces into urban and geographic information and simulation systems. Leithinger used in [4] topographic data to physically shape an interactive projection surface. Maquil et al. proposed the Color Table by which users can arrange urban mixed-reality scenarios by colored tokens and barcodes [6]. Joseph et al. use a luminous table prototype with physical models and projected building shadows and wind patterns for urban simulation [3].

But in general it can be said that there are not so many trials to implement a physical discussion platform which allows perceiving one's cities information intuitively through a physical media installation and support the development of public discussion. The same is true for the possibility of participation and interaction. Although there are a lot of systems providing local geo information like Foursquare and Gowalla as well as digital city models, like the above mentioned Google Earth, but without the possibility of direct interaction and collaborative work.

CONCEPTUALIZING A METAPHOR

This research started with the conceptualization of a metaphor. Considering what kinds of environments were suitable to promote a participatory discourse among citizens, we focused on the intuition of a solid scale city model for targeting normal people from children to elder people. Both a map and a model can be a general metaphor as well as a navigation tool for a city. When people stand in front of the large scale architectural model, it turns out to be a very intuitive environment in order to search for connections between the city and them. Therefore we decided to select this metaphor for the media installation.

CHOICE OF INFORMATION

As a next step from conceptualizing the metaphor, we had to extract the information suitable for this purpose. This was achieved by applying an editorial process on the huge amount of data provided by the city of Linz. In order to use the data within the context of the installation it had to be mappable. By additionally adding a time axis it was possible to narrow it down even further. Within this search space we decided on the proper information. We use data both static and real-time, depending on the demands of the media installation.

INTUITIVE INTERFACE

The design of the interaction between human and urban information was determined by the metaphor and the quality of the available information itself. Furthermore the design is strongly influenced by the environment where the media installation will be situated. But above all it is important to keep simplicity in mind as a core principle, especially in the context of public and gen-

eral availability. Therefore it is important to construct a coherent story of interactions. We achieve this by applying tangible user interfaces (TUI) on an urban information system. We build on two TUI key concepts: interactive surfaces and the coupling of bits with graspable physical objects.

	Scale Model	Changing Linz	SimLinz	SimLinz Mobile
Visualization	Physical scale model	Split screen projection	Panaroma projection	Arbitrary screen or projection
Interface	Laser pointer	Touch screen, RFID token	Pen and booklet	Pen and booklet, map
Data	Current and future city development	Statistic data, maps, real-time 3D city model, photos, text	Statistic data, real-time data, maps, ortho images, photos, text	Statistic data, real-time data, maps, ortho images, photos, text
Update	manual	manual	real-time	real-time
Maintenance	mid	low	low	low
Complexity	low	high	mid	low
Multiuser	mid	low	mid	mid
Interactivity	low	mid	mid	mid
Mobility	low	mid	low	high

Table 1. Comparison of the three approaches.

Special attention was drawn on the symbolic character of the physical object. Analog to the solid scale city model mentioned above, we tried to find objects which are well known in our culture. For example we decided to use pen and paper as main navigation tools for the “SimLinz” and the “SimLinzMobile” installation. People can take the pen and immediately start to participate through pointing at the paper or encircle a special area of interest.

The possibility of intuitive use is one of the main advantages of the installations. Compared to usual web based services, the time people need to understand the navigation of these installations is much shorter, this is in particular true for people who have no experience with digital media. Additionally it´s possible to use more pens at the same time and to explore the city in collaboration with other citizens, get in touch with them and start to discuss about the provided information.

The advantage of intuitive use is especially important for our mobile system. So it´s possible to control the way of how people use the interface and to show them how the interface can be handled, as long as it´s an installation in a permanent place like a museum. But as soon as the permanent place is left, it is impossible to control the usage of the interface and so it gets more and more important that the interface is understandable in an intuitive way, which means that the proper design of the interface is of very high relevance.

Figure 1. Interactive city model “Changing Linz”.

IMPLEMENTATION

COMPARISON OF CITY MODELS

In Table 1 the three city model approaches are compared by a set of arbitrarily selected criteria and characteristics for the purpose of summarization. The subsequent sections contain a detailed description of the implementation.

CHANGING LINZ

The goal of the installation that opened in 2008 entitled “Changing Linz” is to immerse visitors in a highly diversified data pool that provides a multifaceted reflection of the

city's dynamic development in the past, present and future [10]. Varied modes of navigation through time and (urban) space are made possible by city maps, orthographic aerial imaging and a 3D model.

Figure 2. Interactive city model "SimLinz".

More than 2,000 locations with up to three images of each as well as approximately 10,000 statistics describing 260 periods of time were incorporated. Thus, virtual visitors who embark on this journey of discovery through highly diverse information landscapes have access to an extensive storehouse of things worth knowing and seeing drawn from about 150 years of Linz history. Additionally the user can navigate through a 3D real-time model of the city, exploring places related to specific data.

Figure 3. SimLinz panorama projection.

Figure 3. SimLinz panorama projection.

The Installation consists of a split screen projection setup, showing a zoomable and navigable map and a screen for additional contextual information. A TUI is provided by RFID knobs for physically selecting main topics and application modes (3D view or maps) and a touch screen for navigation. By using an integrated spatial joystick users could navigate through 3D space.

SimLinz

The SimLinz installation is part of a museum exhibition located in a lower mezzanine. The main element is a table shaped like the city of Linz approximately 5 by 2.5 meters. The street map of Linz is printed on the table, and the floor around the table shows the city's surroundings (Figure 2).

The street map table is the primary interface through which visitors navigate the city. Opposite the entrance to the mezzanine is a large panoramic projection wall that is divided into three virtual areas, coded red, green, and blue, in reference to each of the

three users who may simultaneously use the installation (Figure 3).

The interfaces employed in "SimLinz" are derived from our ongoing research in alternative graspable input methods, namely physical brushes or stamps [5]. Many projects before like Brandl in [1] have tried to bridge the gap between real printouts and digital content by providing tangible interfaces. Signer gives an overview in [8]. Our approach was to apply the pen and paper interaction onto the use of maps and urban information (Figure 4).

Figure 4. Booklet and digital pen.

Special pens used for this interface read microscopic ink-codes printed in the texture of the paper. The ink codes are fine enough to determine the precise location of the pen in a provided booklet and on the whole map table. This Anoto digital pen and paper technology provides the means to extract detailed positional information of the users drawing. There are three pens designated with color-codes, corresponding with the color coding of the overhead projection segments.

When the digital pen touches a point on the map, the coordinate of that point is read, and a zoomed region of an aerial photograph or map from this location is displayed in part of the overhead display (Figure 3). Additionally it´s possible to encircle an area on the map, as a result the user can see the marked area in more detail. After encircling a region it´s possible to use the pen again and by pointing on the map the user can zoom a particular point of the map. So in general there are two possible ways of using the pen: encircling an area for getting an overview of the marked region and touching a single point of the map for getting a more detailed picture of this single point.

A collection of different maps and data-sets related to the city of Linz are printed on digital paper and held in booklets for the user to navigate through. Each page is dedicated to a specific thematic map of Linz or a type of demographic data. The book contains "buttons" and maps which can be "clicked" with the digital pen (Figure 4).

There are four different types of maps/data-sets available in the booklet: population statistics and demographics, city district statistics, city facilities (like kindergartens, hospitals, etc.) and historical maps. In addition to these basic types there is also a cross-reference index of the city facilities categorized by type. A user can go through the list of types of facilities and pick one by touching it with the pen.

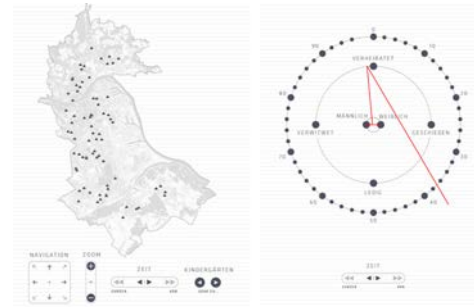


Figure 5. A page for map navigation and point of interest selection (left) and for data selection (right).

On specific pages filtered views of the data can be selected using a pen gesture. These

pages depict concentric circles representing filter criteria (Figure 5, right). The user draws a trajectory from the center of the diagram to the outer edge making intersections with each concentric circle. The trajectory must intersect each circle. The points of intersection represent specific criteria values. Figure 5 illustrates a trajectory that selects females, married at 33 years of age.

Figure 6. "SimLinzMobile" Prototype.

On other pages the user can select real-time (e.g. water level of the river Danube, planes flying over Linz, etc.) which is then shown on the main panorama projection. Within it there are three displays available which are used as the main medium for visualizing information. Each display has a designated color code which reflects the results of the action being done by the pen with the same color code. Therefore up to three users can work simultaneously in parallel on the table.

SimLinzMobile

"SimLinzMobile" is the pocket version of "SimLinz". In contrast to "SimLinz", "SimLinzMobile" is not a permanent installation but a movable system. The basic tools are in principle the same as described above, but smaller: Instead of the big table we used a smaller map of Linz as primary interface, and the big screens were replaced by a laptop used as a monitor for displaying the visualization. The pen as well as the booklet and the collection of maps and data-sets printed on digital paper are the same as the ones used for "SimLinz".

By using a map of the city and a pen as basic interfaces again, it´s also the aim of this product to support intuitive exploration of the available data related to a city. Especially for educational purposes this has shown to be a very useful way of prompting discussion about the local environment and foster the reflection of students about the city they are living in. Beyond school there are some more possible scenarios how "SimLinzMobile" could be used. For example as guide for tourists, as special map in the context of building projects or as tool for business presentations. Currently the city of Linz is showing interest to use it in the context of project presentations.

Evaluation

"Changing Linz" and "SimLinz" work as successful permanent installations in public

space and the development of "SimLinz-Mobile" is now completed. The two permanent models were evaluated formatively on different levels. However evaluation of the "Changing Linz" project showed that the 3D real-time interaction was too complex for users and the 3D visualization too detached from the data maps. For the sake of simplicity in "SimLinz", the 3D element was abandoned completely, along with its interfaces (touch screen, knobs and spatial joystick). By replacing this with the pen and paper interface the interaction/feedback loop was significantly improved. While collaboration was enabled by providing three parallel interfaces on the table in the "SimLinz" installation, there still is the need for more sophisticated collaboration on the level of data itself.

As a result from permanent informal evaluation of visitor experience by museum staff, the biggest problem identified in the current version of "SimLinz" is the lack of direct visual feedback on the main table. Due to the sheer size of the table, several full-body movements are necessary for certain interactions with pen and projection. Having no visual reference on the table often confuses users and hinders an interactive flow.

Some of these detected problems were already solved in relation with the development of "SimLinzMobile". So it is now possible for the mobile System to work collaboratively with more pens on one map and visualize the activities on a single screen. Based on these first steps we are now able to apply the improvements also to the permanent installations.

CONCLUSION & FUTURE WORK

The project is still in progress and future work points in several directions. Providing visual feedback will be achieved by projections onto the table itself. Additional and more enhanced pen-and-paper interactions like in [Figure 1.] will be integrated. Currently considerations are heading towards adding more historic information layers dating back 2000 years, allowing "time travels" through the map of the city. And finally we will prepare the mobile system for the usage in different contexts and promote the implementation of "SimLinzMobile" in different fields like schools or as tool for project presentations.

REFERENCES

Brandl, P., Haller, M., Oberngruber, J., and Schafleitner, C. (2008). Bridging the gap between real printouts and digital whiteboard. In Proc. AVI '08, ACM Press, 31-38.

Haring, R., Ogawa, H., Lindinger, C., Hörtner, H., Afshar, and S., Stolarsky, D. (2010). The City at Hand: Media Installations as Urban Information Systems. In Proc. NORDICHI. ACM Press, 667-670

Joseph, B., Ishii H., Underkoffler, J., Piper, B. and Yeung, L. (2001). Urban simulation and the luminous planning table: Bridging the gap between the digital and the tangible. Journal of Planning Education and Research, Vol. 21, 196-203.

Leithinger, D., Ishii, H. (2010). Relief: a scalable actuated shape display. In Proc. TEI '10. ACM Press, 221-222.

Lindinger, C., Haring, R., Hörtner, H., Kuka, D., and Kato, H. (2006). Multi-user mixed reality system 'Gulliver's World': a case study on collaborative edutainment at the intersection of material and virtual worlds. Virtual Real. 10, 2, Springer Verlag, London, UK, 109-118.

Maquil, V., Psik, T., Wagner, I., and Wagner, M. (2007). Expressive interactions - supporting collaboration in urban design. In Proc. GROUP '07., 69-78.

Nurminen, A. (2008). Mobile 3D City Maps. IEEE Computer Graphic Applications 28, 4, 20-31.

Signer, B.,Norrie, M.C. (2010). Interactive Paper: Past, Present and Future, Proc. PaperComp '10.

The City as Interface / Workspace

Vectors of Vireal Testlabs in Urban Mediatectures

Georg Russegger
Interface Cultures Lab / Institute of Media Studies
University of Arts and Design Linz
Georg.Russegger@ufg.ac.at

Keywords: Location-Based Telepresence, Translocal Diversity, Ludic Interfaces, Coded Cutltures, Insecure Territories, Proto-Cultures

BEYOND URBAN SCREENSAVERS

When I started my research in the beginning of this millennium about artistic interfaces applied in city structures, the hot topics have been related to locative media, pervasive and cross reality gaming, mobile art and device art. Media architectures have been extensively implemented in skyscrapers as info-walls or LED-screens. Urban Screens, as labeled by the institute of network cultures and mediaLABamsterdam, appeared in every bigger city worldwide. The development of media landscapes in urban environments changed rapidly. On the other hand cities like Sao Paulo banned all commercial iconography from the cityscape. Besides the creation of »urban screen-savers« and advertisement based hypermediated city hotspots, like on Timesquare or Shibuya-Crossing , every market town seemed to get a mediated upgrade in light pollution previously reserved for megacities. Media architecture biennials and research institutes established a classical framework to present this new discipline. Besides this approach artists and projects from the creative sector have been sensing oportunities and developed heterogeneous ideas for this kind of new exhibition dispositions. New technologies, codes and standards on a visual base, like openGL for example, and single unit servers added with RGB-LEDs, as seen on Piccadilly Circus, showed massive opportunities in appliance and high end performance on a media-technological level. In combination with emerging mobile technologies such as GPS, SMS, MMS or 3G data-networks and wireless access-points the possibilities seemed to be endless.

Not all artists have been happy with this tendencies and they tried to use the available, mainly propriatary soft- and hardware to get there hands on this new technologies and modd it in unpredictable ways. Some of them followed the hacker paradigm and tried to use them in conditions they haven't been designed for, or redesigned them for another purpose or expression. Groups like Blast Theory or the Ludic Society in their early projects tried to get their hands on the users, receivers or participants, to enable them within a method of gameplay. Nearly ten years later many of my colleagues from the field of digital media based arts and sciences are working as programmers or designers for all kinds of smart-phone apps, media companies or startups on mobile or social media using locative media-networked and public urban screens, to make there living

in the bubble. This reminds me to a website called »Networked Publics« , where I was reading the following quotes from Michael Liebhold and Anthony Townsend, both working at this time at the »Institute for the Future« . They said:

»Geohackers, Locative Media Artists, and Psychogeographers, as key players in constructing the 'geospatial web', in which the web becomes tagged with geospatial information, a development which is having enormous unharvested business opportunities.«

»The IFF's forecast for the next decade is that this context-aware computing will emerge as the third great wave of modern digital technology.«

At this time I was believing that there is a promising feeling around a new infosphere, showing a new way of mediamorph lifestyle of thinkers, designers and creators. Today I suggest to get sober again from the businessman's dream of interface phantasms and the innovation expressions, which are always combined with the next and new big thing. A criticism about artists as beta-testers in this emerging technological field, have been put into discussion by Christian Hübler during the Amber Conference. The playful behavior of artistic projects dealing with the city as interface have been downgraded to a forcing »playbour« (Kücklich, 2010), where the playful methods are taken as new forms of productivity and resource for capitalist explorations. Fact is cities have already turned into enriched mediadispostions and it appears today that it was driven by a kind of gold rush mood which is often an add-on to the innovation driven rise of new technologies. On the following pages I want to reflect on changes in the perspective of how we sense the city and how artistic projects have supported this development based on some examples in this given shortness.

GROUNDING DATA

The starting point of this thinking path was a meeting with Shuddhabrata Sengupta in January 2010 at Connaught Place in New Delhi. We talked about the upcoming project at SARAI Institute called »The City as Studio«. It was based on the idea how art can be included in city structures and be a direct co-producer of city cultures and local habits. It was a special time of the year because New Delhi was one big construction site. The reason for that have been the Commonwealth Games , which now finished a couple of month ago (14th Oct. 2010) in New Delhi. The city was under a huge process of creative construction and it reminded me how fast things can change in our time, when the spirit of modernization is set with a clear goal to focus on.

The project by SARAI tries to transform every corner, bazaar, street crossing or bicycle rickshaw into an artistic project or art piece by using the city as data-storm. The project »PLUSH AS DUST« from Iram Ghufran and Amitabh Kumar for example is interested in several forms of dust towards the city. As thin and thick layers, tiny and large particles, fragile but stubborn, marking time, witness to the experiences of space, dust carries

with it stories and anecdotes, traces and patterns, rumors and reports. This act of gathering has created a practice of collecting, labeling, accumulating, cataloguing and mapping. Aside these individual approaches, the studio process in this sense brings together artists, filmmakers, photographers, discursive interlocutors, architects, writers, urbanists, scientists, social actors and cultural workers, neighborhood initiatives and diverse audiences to create art works, participatory performances, media works, and transmissions of different kinds of signals. »This requires the artists and participating fellows of the project to have a nose for the city's secrets, a sympathy for what the city does to people, an affection for the city's imperfections, a capacity to wrap their heads around its enormous diversity, and a sense of humor,« curator Shuddhabrata Sengupta said when I was asking about the specific abilities of the participants.

This perspective gives a direct link to the question of DATA CITY. What can be seen as data in the city is not quite clear, especially if we think about the interlinkage of real and virtual architecture. The interpretation of data is framed by questionings of how things, people, structures and ideas are connected and how they can be observed and interpreted. Besides this the questions would be if it is enough to think about architecture per se, or how it is applied, designed, developed or transformed by cultural heterogeneity and usage? Artists can play a major role in the appliance of new ideas within this complex issues of developing urbanity. Using funware, creating software as cultureware or investigate on inaccessible urban areas or visual polluted surfaces, like it is done for example in the project »Artvertiser« by Julian Oliver, Damien Steward, Clara Boj and Diego Diaz. It can be seen as a major shift in the artistic adjustment, in dealing with the actual disposition of urban ground by playfulness and ludic inventions, which are often used to raise the awareness on sensitive topics hard to understand.

It underlies the experimental setup, which forces idea of the city as laboratory, where people can participate and create shared backgrounds and experience things on a quite open level of interpretation. To enable the artistic strategies and appendage without falling into the paradigm of thin innovation and coolhunting, a historic perspective of city development can be useful in the description of different forms of urban city laboratories and its functions during the very different growings of cities. It is questionable if artistic projects can repair or change strong tendencies of proprietary and top down approaches on the level how technologies, services, media technological and media architectural structures are applied in urban areas. As a second step we have to look at examples and strategies how artists are programming (socially, culturally, technologically, informal a.s.o.) the public environment of urban playgrounds. It is important to show how projects based on open development are more adaptable and exploreable in contrary to a classical approach of sight specific art or contemporary art in public space, especially with a focus on the city as workspace.

THE CITY AS DATAFACE

Based on theories of Mark Weiser, a pioneer on the development of pervasive computing, the connection of humans and computers will be ubiquitous. If we compare this to the dominant living environment of humankind – THE CITY -, the future interface seems to be the this complex frameset itself. Data in this sense will be stored and up/downloaded onto context, embodied devices

and multisensory environments. Physical-digital Interfaces just as MEMS (Microelectromechanical Systems) have changed our whole relation to the surrounding devices and our interaction methods with them. Combining this media- and communication-technologies and media-architectonical developments with a global perspective of city development, how Joel Kotkin analysis it, 5 billion people are living in urban environments by 2030. City policies worrying about expanded landscapes, no-go areas and blind spots of transportation and maintenance have been released by the believe in problem solvers like new technologies and communication infrastructures. Like the Anthropologist Robert Mc C. Adams puts it: »We have accomplished an awesome technological destruction of distance«. The wish of command and control, as have been observed within the misleading development of »WIFI – networks« and its actual closeness, shows quite obvious that openness and adaptability applies only in the first unstable and unsecure moments, while these communication-technologies have to be introduced. The no-go areas of data-access are growing and the symptom is the security and observation paradigm, which actually forced the development of hyper-networked, panoptic and multisensory urban mediascapes.

This is the time where artistic projects using the city as a laboratory, exhibition space, communication platform or hack-spaces, having good chances to try things out and develop test drives for future appliances. It is as well the time where open design thinking meets city development on the level of wilderness. Interface cultures can be developed in a prototypical sense, since only minor rules have bee made and the borders and gates have not been set by profit-oriented organizations and thin innovation. It opens the fields of free development within a mainly cacophonic media-composition, lacking of structural preciseness and offering an easy to overcome limitation. Nothing the less it is a short window of opportunity to add crazy and valuable ideas on the intersection of materialized architecture and its connectedness via waves, data, sensors, protocols, scripts and everything which is pervasive without a suitable interface or device. I will call this the vireal (real – virtual) testlabs in the following. The so called »real« stands for the materialized and not for reality. The »virtual« stands for digitally and media-integrated forms of information, including digital environments and all code-based action and interaction interfaces. This blended realm is the cognitive environment where we try things out, learn, organize, create, design and establish knowledge. The combination of architecture and mediatecture in the city such as wireless networks, sensors, RIFD systems, 3G mobile-phone networks included in existing materialization of classical architecture is a basic requirement in the urban planning today.

Artists have been working with this structures in an early stage, like the LUDIC SOCIETY did with city based projects like »Tagging the City«. Using new technologies like RFID-chips, digital mapping systems applied in a citywide gameplay. The prototyping of machine- and device-based programming in an early stage of appliance is exhaust-

ing but it enables the possibilities of playful »meet and greet« actions of a broader audience with complex and pervasive media- and communication-technologies. This »Ludic Interfaces« , like we tend to say in the European research group with the same title, are representing a main transponder in the introduction of the city as interface. They foment action and opinion, introduce new technical programs and by this means give opportunities to establish social and cultural programs to be developed by producers and consumers. The digital ground like Malcolm McCullough tend to say, is connected to the city ground and it significance of computing in this environment has become its capacity to let us take part in shared representations of action, as Brenda Laurel describes this in her essay Computers as Theater. Besides this we have to question how a modification of these growing complexities can lead to an idea of »simpliCity«. City models are still totally homegrown structures of nations, economies, histories and ethnological movements. The strategic position is clear but makes it still impossible to talk in common relations so easily on a global scale. The diversities in different cities like Vienna, Istanbul, Tokyo or New Delhi for example are such tremendously big at the first glance, but all of them have there design goals, artistic movements dealing with urban catalysts, cultural diversities, globalized information-technologies, power systems and water supplies. For sure all of them deal with this issues in a very different way. Through the lens of artistic research the works of the artists take advantage of strategies and proceedings, questioning discovered circumstances.

THE CITY AS WORKSPACE

Using the city as an expanded interface of social, cultural, artistic, (media-)technological and architectonical inter(-re)actions is not common practice and common ground so far. Practically we are still far away from an applied city as interface functionality. But as we have seen, the developments are extremely fast when the infrastructures can be taken as granted for a large scale and mass execution. On the other hand, since it is still future music, this gives time for learnable and educational tasks, which are becoming serious but playful approaches within the extended proto-interface cultures, possible in city environments. The enablers of creative, flexible, mistake friendly, life long learn-able, and useful for a community parameters are more and more overtaken by artistic and cultural grassroot projects which are defining the city as workplace and playground. For example the group of artists and researcher called »Blast Theory« write about their project »Can you see me now?« the following:

»Can You See Me Now? draws upon the near ubiquity of handheld electronic devices in many developed countries. Blast Theory are fascinated by the penetration of the mobile phone into the hands of poorer users, rural users, teenagers and other demographics usually excluded from new technologies. … Can You See Me Now? takes the fabric of the city and makes our location within it central to the game play. The piece uses the overlay of a real city and a virtual city to explore ideas of absence and presence. By sharing the same 'space', the players online and runners on the street enter into a relationship that is adversarial, playful and, ultimately, filled with pathos.«(Blast Theory, 2007)

This reference lays the focus on users having already overtaken a large amount of the media spheres and the mentioned technologies. Talking near future, many people will be handy with the interaction in mediatec-

tures and they become more every generation. An interesting observation point will be how these communities will shape ideas of work and cooperation in a selforganized way, concerning the productivity and work environment. At the moment the city still functions as a laboratory for temporary usage, and ad hoc appliance, even if the gentrification models are strong an often unsustainable. One of the interesting challenges will be to attract people to invent as interesting social interaction spaces as the buzz of technology used to create.

This empowerment of projects around abstract and artistically rich connotation can transform social and cultural issues into test-forms and prototypes of future life-worlds. It forces a mode of cooperation between inhabitants of the city, which is aware of sub- and countercultures even if the outcomes are often imprecise or unfinished. This mistake friendliness and creative adaptation can be seen as adaptive learning to deal with the city as the new operation system. It becomes the new home for that what is left of the outrunning models of nation, ethnic group or religion even the model of society. This makes the city to an emerging melting pot for all kinds of movements and ideas on the one hand but to a focal point for friction and riot on the other hand. It is still hard to predict how the city as interface and/or workspace will convert in the near future, by observing the last ten years of dynamic global development.

To make sure the city stays in a way the cacophonic interface which we still have, especially artists and cultural projects based on digital technologies and networked architectures should be aware of the alluring moments to develop things in a post-industrial cubicle instead of an open design paradigm, which is still possible in the city as interface methodology. Artistic projects, practices and strategies still represent an part of urban wilderness within the rising monoculture believe of many city policy creators and especially when it comes to business in combination with urban development or future utopia. As seen at the Amber Conference, there is not only a critical potential involved in the artistic thinking, it is a slowness combined with awareness to look ahead and participate in movements which are not only dominated by abstract modes of development reachable only for a few. We should look forward to an intense dialogue about the city in the city while using it as an living environment for all kinds of actions, to create an environment where people can co-exist in a generative and free way.

References

Adams, R. Contexts of Civilizational Collapse, in: The Collapse of Ancient States and Civilizations, 20.

Ed.: Faßler M., Terkowsky C., Fink. (2005). Computers as Theater, Urban Fictions, Laurel B., Addison-Wesley Professional 1993.

Eds.: McQuire S., Martin M., Niederer, S. (2009). Urban Screen Reader, Institute of Network Cultures.

Kotkin, J. (2005). The City – A global History, Random House.

Manovich, L. (2001). The Language of New Media. Cambridge, MA: MIT Press.

McCullough, M. (2004). Digital Ground. Cambridge, MA: MIT Press.

Thackara, J. (2005). In the Bubble. Cambridge, MA: MIT Press.

THE TEAM

Sanat Yönetmeni / Artistic Director
Ekmel Ertan
Festival Yönetmeni / Festival Director
Özlem Alkış
Konferans Planlaması / Conference Programming
Nafiz Akşehirlioğlu
Zeynep Gündüz
AmberPlatform Yöneticisi / AmberPlatform Administrator
Tuna Poyrazoğlu
Prodüksiyon / Production Team
Ahmet Türkoğlu
Murat Durusoy
Konuklama / Hospitality
Başak Kalaycıoğlu
Asistan / Assistant
Ece Akkoyun
Grafik Tasarım / Graphic Design
Oya Çitçi
Web Tasarımı ve Uygulaması / Web Design and Implementation
Ahmet Türkoğlu
Sergi Görevlileri / Exhibition Crew
Evşen Ayçay
Zafer Ödemiş
Serra Girgin
Eda Koç
Gönüllüler / Volunteers
Sevim Gülcan Resul
Fatma Belkıs Işık

SPONSORS


Istanbul
2010
AVRUPA
KÜLTÜR
BAŞKENTİ
EUROPEAN CAPITAL OF CULTURE

Partners / Ortaklar

GLOBALGATEWAY

İKSV

İSTANBUL MODERN

interfaceculture

Sabancı Üniversitesi

Service Sponsors / Servis Sponsorları

Bilgisayar Hastanesi

MAS

Formal Sponsors / Resmi Sponsorlar

İSTANBUL BÜYÜKŞEHİR BELEDİYESİ

İSTANBUL TURİZM ATÖLYESİ
İSTANBUL BÜYÜKŞEHİR BELEDİYESİ

İstanbul 2010 Avrupa Kültür Başkenti
SANAT LİMANI

Media Sponsors / Medya Sponsorları

bugun bugece.com

ARKİTERA MİMARLIK MERKEZİ ARCHITECTURE CENTER

Event Partners Etkinlik Ortakları

AKR

pottporus WTBK wort.tanz. bild.klang.

Event Sponsors / Etkinlik Sponsorları

Hollanda Kraliyeti
İstanbul Başkonsolosluğu

avusturya kültür ofisi ist

kunst universität linz
Universität für künstlerische und industrielle Gestaltung

Produced By / Gerçekleştiren

BİS
BEDEN-İŞLEMSEL SANATLAR DERNEĞİ
BODY-PROCESS ARTS ASSOCIATION

TEŞEKKÜRLER / THANKS

amber'10 Sanat ve Teknoloji Festivali'nin gerçekleşmesine katkıda bulunan / We like to thank to whom helped us to realize amber'10 Art and Technology Festival

Ana Destekçimiz / Main Sponsor
İstanbul 2010 Avrupa Kültür Başkenti Ajansı

Ortaklarımız / Partners
İstanbul Kültür ve Sanat Vakfı
İstanbul Modern
Sabancı Üniversitesi

Destekçilerimiz / Sponsors
İstanbul Büyük Şehir Belediyesi
İstanbul Turizm Atölyesi
Hollanda Konsolosluğu
Bilgisayar Hastanesi
Mas Matbaacılık A.Ş.
İstanbul Teknik Üniversitesi
Avusturya Kültür Bakanlığı

Destekleri için / Supporters
Beral Madra (İstanbul 2010 AKBA)
Görgün Taner (İKSV)
Levent Çalıkoğlu (İstanbul Modern)
Mehmat Baç (Sabancı Üniversitesi)
Tülin Ersöz (İstanbul Turizm Atölyesi IBB)
İsmail Gülal (İstanbul Turizm Atölyesi IBB)
Daniel Stork (Hollanda Konsolosluğu)
Recep Tuna (Hollanda Konsolosluğu)
Meltem Aksoy (İTÜ TBT Lab.)
Deniz Girgin (Bilgisayar Hastanesi)
Lokman Şahin (MAS Matbaası)
Deniz Erbaş (İstanbul 2010 AKBA)
Serap Altun (İstanbul 2010 AKBA)
Erkan Altıok (İstanbul 2010 AKBA)
Mehmet Ali Girgin (İstanbul 2010 AKBA)

Güneş Nasuhbeyoğlu (İstanbul 2010 AKBA)
Fikret Şentürk (İstanbul Turizm Atölyesi IBB)
Müge Turan Tüfenk (İstanbul Modern)
Neslihan Varol (İstanbul Modern)
Gökhan Urulu (İKSV)
Haluk Kuruoğlu (Bugün Bugece)
Gizem Candemir ve Difüzyon Ekibi
Ali Vahit Şahiner (Öykü Madeni)
Alişan Çırakoğlu (Çırakoğlu Mimarlık)

ve amber'09'da yer alan tüm sanatçılara
amberFestival ekibi olarak sonsuz teşekkür ederiz.

amber'10 Sanat ve Teknoloji Festivali /
amber'10 Art and Technology Festival

Türkgücü Caddesi No:3A
Tophane, Beyoğlu, 34425 İstanbul
Tel: +90 212 243 22 04
info@amberplatform.org
http://www.amberplatform.org

İstanbul 2012
ISBN 978-605-88807-5-7

Tasarım / Design :
Berrin Sun, Mine Yılmaz

Uygulama / Layout:
Berrin Sun, Mine Yılmaz

Fotoğraflar / Photographs :
Murat Durusoy, Ekmel Ertan

amber'10 Sanat ve Teknoloji Festivali
amber'10 Art and Technology Festival
İstanbul, Turkey

http://www.amberplatform.org

BİS Beden-İşlemsel Sanatlar Derneği
BIS Body-Process Arts Association