

Émission

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More than its physical matter, architecture's conditions - its determinants, performance, milieu, and multiple stakeholders - grow ever more ethereal. The "ether" condition can be named as such because of its entropic, expanding and hazy mixture of physical and computational and other characteristics; and possibly for a resulting delirium in its movement past any paradigm in which any of these parameters can lay dominant claim to its formation. Answering to an ever-expanding set of contemporary exigencies from market crashes and shifting climates to globalized sources of building materials and the evolving influence of ubiquitous computing, the built environment provokes speculation on its possible futures that must lie far outside of typological or even scalar parameters. It needs critical fictions as a means for planning tactically past choices of utopic or dystopic scenarios, embracing instead a messy tangle of new and future influences and a sober acceptance that analog convergence recasts architects more like steampunk novelists or design noir authors (to borrow here a term from Anthony Dunne). These influences resemble the categories found in a building code or current teaching curriculum, but in name only: cultural, technological, legal, material, to name a few. Upon further examination, the nature of each has already so fundamentally transformed as to demand speculation far past existing models of architect-consultant relationships or any mere new upskilling for young designers. We need new methods now to participate in speculating on the built environment's future.

A recent design research project under the title, "Émission" explored some of the convergences in this "messy tangle" within a specific context.

"Émission" is a title that refers to both radiation and broadcast in the word's French usage. This word identifies an important relation between electromagnetic frequency radiations and new technologies, especially communications technologies, in our world now. The title frames a set of critical fictions at the basis of this research-based design project, a speculation on future convergences between EMF radiations of different sorts, public health, and the built environment.

This project revisited some Modernist conceptions of space through a study of how air is constructed and mediated by architecture today, considering air as highly saturated with invisible elements in dynamic play with our bodies. In a former residence and practice of a doctor, this installation shows the intersection of architecture, electromagnetic radiation and health effects. Installed in the villa's consultation parlor, posters and objects for consultation imagine where we are going in the next 25 years. Each poster describes a possible scenario involving health, law, materiality and modernist culture. These narratives have specific places and dates that corresponds with real global changes documented in research, with references to the sources. The didactic posters take form as one might find at the doctor, with an associated anatomical model or instrument from these speculative futures. In this way, architectural, urban and global development scenarios are explained through the intensive mix of influences that are distant results of modernist ideas. As a discursive backdrop to this project, we might consider theories of Reflexive Modernization of the past years, in particular those proposed in writings of recent years by Anthony Giddens, Ulrich Beck and

Scott Lash (see for example, Beck, Bonss and Lau, "The Theory of Reflexive Modernization: Problematic, Hypotheses and Research Programme," in Theory, Culture & Society April 2003 20: 1-33). These writings frame a fresh consideration of the material and computational influences on architecture outside of either technophilic or socially positivistic terms. They therefore let us imagine the multiple influences of grand shifts in analog and digital, meteorological, legal and other factors, and where they might lead.

The Émission project's narrative runs both chronologically and geographically, in each case imagining an accelerated timeline for the next 25 years and what might converge where. For each case, a specific set or tangle of considerations are taxonomized from research in our current state. These taxonomies form the basis for a "scenario", each with its own design objects and mappings that imagine the physical and computational, analog and digital directions that may come together but also the lived scenario or narrative.

Always follow these instructions and precautions when on a call using the built-in audio receiver in iPhone, hold iPhone with the dock connector pointed down toward your shoulder to increase separation from the antenna.

When using iPhone near your body for voice calls or for wireless data transmission over a cellular network, keep iPhone at least 15 mm away from the body.

For body-worn operation if positioned less than 35 mm from the body (e.g., when carrying iPhone in your pockets). If you are still concerned about exposure to RF energy, you can further limit your exposure by limiting the amount of time using iPhone, since time is a factor in how much exposure a person receives, and by using a hands-free device and placing more distance between your body and iPhone.

Questions about using your mobile device with your implantable medical device, consult your healthcare provider.



For more information about RF exposure, visit the FCC website at www.fcc.gov or the Canadian Wireless Telecommunications Association (CWTA) website:

SCENARIOS

2019: "R(ad)io Therapy"

The early 21st century's trends in lifestyle medicine and medical tourism (lasiks in Bangkok, anyone?) gets a further turn as cancer patients give new meaning to "getting a Brazilian." This city's resorts have cleaned up safety issues around kidnapping of the wealthy, and their use of new self-administered radiology tools around highly-controlled doses of spot-therapy for cervical cancers.

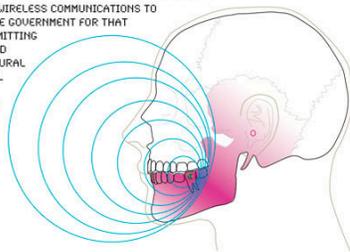
These cancers occupy a strange place in medicine, as their increase in occurrence is unexplained and yet they are not met with popular alarm since treatments have drastically cut their life threat.

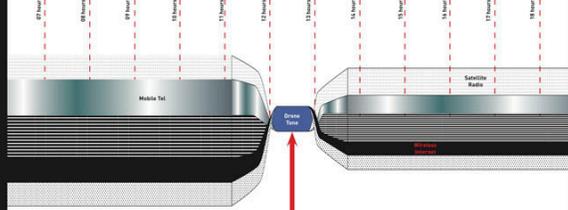
- Legal: Medical Tourism
- Material: None
- Health: Cancer Trends
- Modernism: Holiday Resort Planning

STRESS RELIEF PERIOD

2023

After the mass acceptance of TCC (TOOTH CHIP RADIO), THE TECHNOLOGIES AND INFRASTRUCTURE ADAPTED FOR WIDESPREAD TCC (TOOTH CHIP COMMUNICATIONS), PEOPLE ARE NOT ONLY CONNECTED BUT THE CONNECTION IS PHYSICALLY IMPLANTED ON THE BODY, THUS EXPONENTIALLY INCREASING STRESS LEVELS. 6 YEARS AFTER MASS IMPLANTATION, THE SOMALI PARLIAMENT DECLARED A 1-HOUR RELAXATION PERIOD TO SUPPORT THE PRACTICE OF SIESTE THAT WAS CULTIVATED DURING ITALIAN COLONIAL RULE. THIS ALLOWS WIRELESS COMMUNICATIONS TO BE RUN BY THE GOVERNMENT FOR THAT HOUR, TRANSMITTING SYNCHRONIZED MEDITATIVE AURAL AND PHYSICAL RHYTHMS OVER THE AIR THROUGHOUT MOGADISHU.



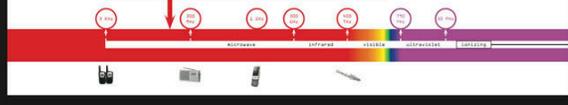


Legal: Eminent Domain, Federal Communications Regulations

Material: RF, TCC & TCC (tooth chips)

Health: Hypertension

Modernism: Anti-Ship



2020: "Meridian Park"

Jordan emerges as the middle east's nexus of modern democracy and new technological innovation under queen noor's leadership, with the side effect of new consumer electronic usage and a movement for digital landscape urbanist interventions in the nation's capital.

Amman therefore establishes an elevation clear-zone, a parks district between 800-830 meters above sea level that is protected from wireless emissions. Intended for day-to-day recreational use, pulmonary health and also for more general testing against dangerous rads, this cuts an invisible band across the city's 21 hills and valleys where wireless signal would usually drop off anyway in the past. Now, it serves as a kind of haptic elevational mapping tool: if your radio or phone signal drops as you walk or drive up A Street, you have entered the Meridian. Also, the Meridian is an empirical device: since it has no EMF in the lower bandwidth, it leaves testing for any leakage from nuclear power facilities in Asia to be clearly identified if it enters the city's atmosphere.

The Meridian is constructed with disruption nets around the city that sparkle with flashing OLEDs as they detect and cancel signal, much like blue-light fly-zappers. These nets are made from recycled silicon and aluminum detritus of the tech industry to the south and in neighboring Israel.

Legal: New Democracies, Urban Design
 Material: None
 Health: Fresh Air Protection
 Modernism: Boston's "Emerald Necklace",
 Le Corbusier's City of Tomorrow

2023: "Stress Relief Period"

After the mass acceptance of TCR (tooth chip radio), the technologies and infrastructure advanced for widespread TCC (tooth chip communications). People are not only connected but the connection is physically implanted on the body, thus exponentially increasing stress levels. 6 years after mass implantation, the SOMALI Parliament declared a 1-hour relaxation period to support the practice of sieste that was cultivated during Italian colonial rule.

This allows wireless communications to be run by the government for that hour, transmitting synchronized meditative aural and physical rhythms over the air throughout Mogadishu.

Legal: Eminent Domain,
 Federal Communications Regulations
 Material: TCR & TCC (tooth chips)
 Health: Hypertension
 Modernism: Agit-Prop

2030: "Infertility Cycling"

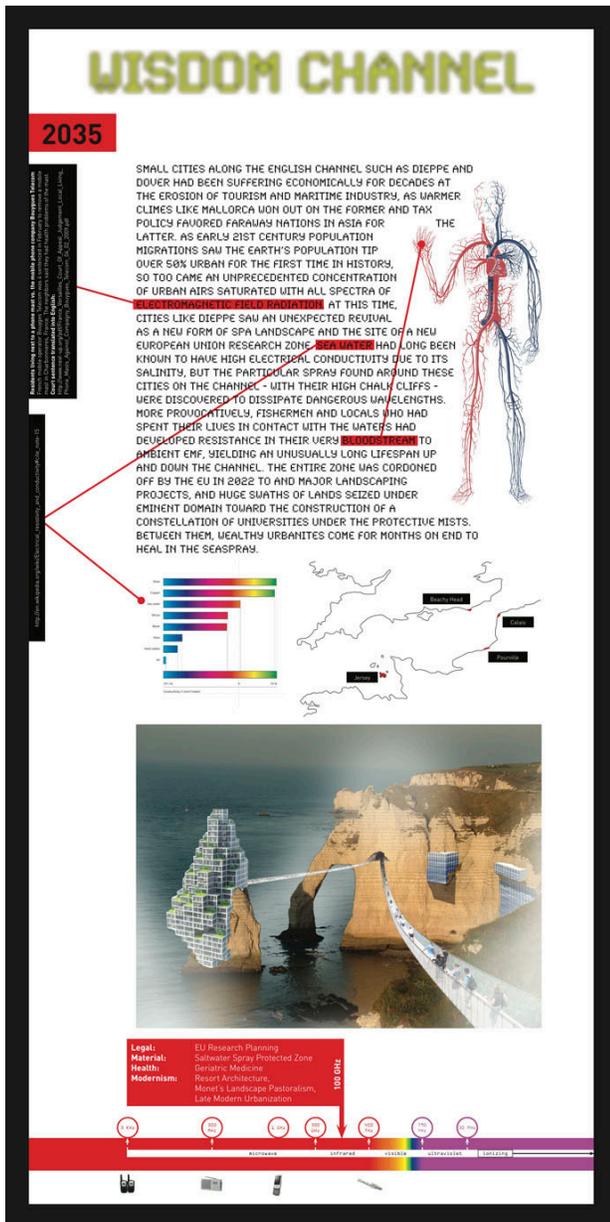
2030

INFERTILITY CYCLING

IN 2050, HOLLAND'S EFFORTS TO BUILD NEW DYKES FOR STEMMING RISING SEA LEVELS ARE SUPPLEMENTED BY AN UNEXPECTED DEVELOPMENT IN THE FORM OF PASSIVE POPULATION REDUCTION. EARLY 21ST CENTURY CELL PHONES, LONG CONFIRMED TO EMIT WAVELENGTHS HARMFUL TO MALE SPERMATIDS ARE REINTRODUCED TO MARKET. GOVERNMENT SUBSIDIES HAVE FOR DECADES FUNDED THE RETROFITTING OF URBAN DWELLERS HOUSES WITH EMF-BLOCKING CERAMIC TILE AND THE CANALS OF AMSTERDAM ARE REGULARLY IMBIBED WITH COPPER PARTICLES THAT HEIGHTEN CONDUCTIVITY IN THE WATERS, THEREBY DRAILING STRAY EMF FROM THE AIR, AND THEN PROMOTE ALGAE GROWTH ONCE OUT TO SEA. TOGETHER, THESE INVERT THE OBJECTIVITY OF SPACE AS PROPOSED BY GERRIT RITVELD AND CONTEMPORARIES, SUBJECTING BODIES SELECTIVELY WHILE MAINTAINING OPEN DOMESTIC SPACES OF SEX FOR A NEW SOCIETY OF WILLFULLY INFERTILE MEN.

Legal: liberal civil rights policies lead to total deregulation of cell phone EMF
Material: (H)airnet, canal transducers
Health: Make Fertile, Genetic Change
Modernism: De Still Revisited

In 2050, Holland's efforts to build new dykes for stemming rising sea levels are supplemented by an unexpected development in the form of Passive Population Reduction.



found around these cities on the channel - with their high chalk cliffs - were discovered to dissipate dangerous wavelengths. More provocatively, fishermen and locals who had spent their lives in contact with the waters had developed resistance in their very bloodstream to ambient EMF, yielding an unusually long lifespan up and down the channel. The entire zone was cordoned off by the EU in 2022 to and major landscaping projects, and huge swaths of lands seized under Eminent Domain toward the construction of a constellation of universities under the protective mists. Between them, wealthy urbanites come for months on end to heal in the seaspray.

Legal: EU Research Planning
 Material: Saltwater Spray Protected Zone
 Health: Geriatric Medicine
 Modernism: Resort Architecture,
 Monet's Landscape Pastoralism, Late Modern
 Urbanization

Each of these are narratives, but the essence of the project locates them in something slightly more native to the architectural work of projecting futures: scenarios. Scenarios differentiate from narratives crucially, and they identify one of numerous differences between this body and a seminal work that is in some ways its inspiration, Dunne and Raby's "design noir" studies, as exemplified in Anthony Dunne's *Hertzian Tales* (2005). In that work, the use of narrative appears to precede and augment dark twists on the directions that industrial design objects of today latently desire. Dunne and Raby's objects in fact riff on the very use of narrative that is so typically employed in product design proper, imagining users, their demographics, their world of things, and so on. Highly personal in constructing a subject, these methods get exorcized by Dunne and Raby along with the desires that they construct for a consumer.

Architectural constructions of the subject are a sea of such objects and desires, but they construct at a larger scale and a more heterogeneous batch of consumers. In public spaces like those imagined in *Emission's* beaches of Rio or Meridian Park, it is the very indiscriminating infiltration of the air with EMF radiation that depersonalizes these from the subjectivity of a single narrative, and in which narrative can only follow. This are essential qualities to the construction of such scenarios, since they enable a new practice for architecture to handle a messy tangle of multiple demands between physical and digital interactions to come. These scenarios are utterly architectural in their convergence of much more than just digital and analog computing, but of the legal, cultural, material and other conditions that underlie them. In each of these six scenarios, a projection forward 25 years attempts to reconcile research of all these types into a speculation on objects, spaces and routines that might result.

These objects, spaces and routines necessarily cross multiple scales from the molecular to the regional. For example, one scenario draws together diverse data from the rising popularity of infant tattooing in the US, DIY recipes for conductive ink, new life-

style camp developments for pre-teens and deregulation of locations for cell towers. Another imagines what the result could be on public health and regional development in the EU along the English Channel coastline, as discoveries are made around the shielding capacities of seaspray's salinity. Some of these designed results have characteristics that have already been identified in the worlds of pervasive computing, such as spimes (a neologism coined by Bruce Sterling in 2004 to describe objects that are self-tracking and self-reporting, among other behaviors) but blown to the scale of environments or even urban design interventions.

Studies like those produced in *Emission* are therefore probes of several kinds. They plumb the possibilities for scenarios of critical fiction as a new region of design practice that can be steeped in current research yet remain highly speculative. These scenarios are also able to manage numerous, diverse influences and yield considerations for design that are one or two generations ahead of us but demanding thought across scales and design disciplines. This welcomes into architectural thinking a rhetorical and material space for the convergence of so many physical and computational players in flux: blood, cell phones, walls, soil, legacies of Modernism, laws of eminent domain - in short, the fraught space and discourse that we might call the Commons (see Garrett Hardin, *The Tragedy of the Commons*, Science, 1968). This allows architectural research and design practice to maintain rigor over a necessarily expanding range of possibilities and risky futures, not only reading and learning from but also speaking meaningfully back to audiences in fields as far reaching as climate science, computer science, economics, sociology and material science.

Project Credits: Jordan Geiger, Daniel Barry, Adam Laskowitz