

# PROLEGOMENA TO AN ARCHITECTURE OF SECURITY

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## Thomas R. Hilberth

This thesis is an introduction to the vast field of an architecture of *security*. It examines the relationship between architecture, war and terrorism.

### Introduction

The work centres on the influences that deliberate, human-created dangers (primarily war and terrorism) have on architecture in limiting catastrophes and natural disasters. Due to their complex nature, many specific examples, such as modern military bases, high-security prisons, nuclear power plants and air ports, should not be taken into consideration. Their problematic nature will break the framework for the already existing work and contribute very little to the present theme.

### Method. Leitmotivs

The method (01) lies in the choice of a strategic approach. By utilising a few clear and coherent key terms, comprehensive empirical material is thereby structured. An extra focus is found in Paul Virilio's, Gilles Deleuze and Felix Guattari's ideas on the war machine, as they convincingly demonstrate the connection between architecture and war. Other leitmotifs are: anxiety and fear (02), security (02), territoriality, thresholds, borders and transitions (03), differentiation (03), *de*-differentiation (03), speed (03), intensity (03), the war machine (04), terrorism (05), coincidence (05), [ctrl][space] (06), territorialisation, respective de-territorialisation and re-territorialisation (06).[1] The study of these leading themes finds its relevance in safety/security-engineering and architectural coherence. This parallelism and mutual independence is illustrated by empirical examples

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[1] The numbers in brackets refer to the corresponding chapter in this thesis

## Anxiety. The origin of architecture

Anxiety is one of the most fundamental human emotions. Consciousness of one's own vulnerability and mortality, when combined with the ability to take inventory of dangers and anticipate development, is a cause for fear.

People and animals share three reactions to the phenomenon of anxiety: paralysis, fighting or fleeing.

In psychology, anxiety is considered to be man's first experience at birth and one of the most primal motivating forces. The feeling of anxiety, which is one of the strongest motivational factors for human activity, forces us make decisions and take actions to ensure our survival.

Human being develop a complex system of territorial behavior, of which one component is architectural design of one's environment.

Through architecture, the abstract, directionless anxiety of the foreign and unknown is moderated to an object-oriented, direct fear of concrete threats. It is expressed in constructions intended to defend and combat against anticipated dangers. Control and the artificial order of surroundings created via manmade structures (among other things) numb the pain of anxiety and create space for safety and security.

According to Abraham Maslow, the need for **security** arises directly after fundamental psychological and physical needs have been satisfied, such as breathing, nourishment, sleep, etc. Psychologist Clayton P. Alderfer considers security to be an "absolute" or natural need, which unlike relative or cultural ones, appears for the most part independent of human will. [2]

## Security, a fundamental human need

**Security** itself denotes a state free of irresponsible risks of damaging actions, or generally something that is danger-free. Situations or conditions with negative effects are designated as dangers; and in this study, it is first and foremost the danger associated with human interaction that is taken into consideration.

The notion of security has changed dramatically over the course of a millennium, particularly as a result of scientific development; it is, however, in its fundamental element of life-saving and protective precautions, constant.

The ideas and lines of thought affiliated with security are a reaction to the feeling of anxiety.

It has psychological, spatial and social consequences.

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[2] Cf. [online], URL: [www.12manage.com/methods\\_alderfer\\_erg\\_theory\\_de.html](http://www.12manage.com/methods_alderfer_erg_theory_de.html)

## Territoriality. Control, occupation, adaptation and marking space.

Territorial behaviour is a psychological consequence of the human tendency to strive for security.

*Territoriality can be understood as individual or group behaviour patterns and attitudes that consist of observing, attempting to or exerting control of a definable (physical) space, object or way of thinking, which in turn can consist of habitual occupation, defence, individual adaptation and marking.[3]*

The control, habitual occupation, individual adaptation and marking of physical space are also architectural tasks. Architecture is thereby an expression for human territorial behaviour in the attempt to establish security.

The dissimilarity of territories, as they are environmental-psychologically defined, resonates in architecture. Primary, secondary and public territories segregate architectural space, and the material code of spatial marking and individual adaptation can be interpreted as a system of communication with linguistic patterns.[4] In this way, the constructed milieu as human creative product interacts with the human psyche, exerts influence on it and vice-versa.

## Differentiating and de-differentiating

Architecture is the enclosing of space by technical means. All architecture is the human acquisition of natural space and exists in the context of natural and built environment.[5] Architecture can be understood as a holistic, organic system of spatial **differentiations** and **de-differentiations**.

For Christopher Alexander, against the background of the overriding idea, all building is a process by which space is differentiated.

“...every individual act of building is a process in which space gets differentiated. It is not a process of addition, in which pre-formed parts are combined to create a whole: but a process of unfolding, like the evolution

[3] Cf. Gifford, Robert: Environmental Psychology. Principles and Practice. Boston: Allyn and Bacon, 1997, pp. 120.

[4] The idea of architecture as language and a system of communication is semiotically explained in various works. Three outstanding representatives of this idea are:

- Fischer, Günther: Architektur und Sprache. Grundlagen des architektonischen Ausdrucksystems. Stuttgart/Zürich; Karl Krämer Verlag; 1991
- Alexander, Christopher: Eine Muster-Sprache. A Pattern Language. Städte, Gebäude, Konstruktion. Wien: Löcker Verlag GesmbH, 1995
- Eco, Umberto: Einführung in die Semiotik. Semiotik der Architektur. München: Wilhelm Fink Verlag, 1991

[5] Cf. Berger, Rolf und Eva: Bauwerke betrachten erfassen beurteilen. Wege zum Verständnis klassischer und moderner Architektur. Augsburg: Augustus Verlag, 1999.

of an embryo, in which the whole precedes its parts, and actually gives birth to them, by splitting.[6]

### **Architectura as a system of thresholds,borders and transitions.**

**Thresholds, borders and transitions** are the manifestations of architecture that unfold in space. The border differentiates and separates the inside from the outside. It excludes and includes; it preserves, renders safe and marks the boundaries of a controlled territory. The scope of the material nature of borders varies from insubstantial and invisible to massive and impenetrable. Borders segregate places; thresholds and transitions secure connections between them. For Pierre Bourdieu, they remain in places in which "*die Welt sich verkehrt*" [7] Thresholds and transitional spaces control the permeability of borders and reveal their true nature. They both affirm the border and allow the physical or optical means of surmounting it to shine through. Thresholds have a *defined, protective, securing and semantic* function at their disposal.[8] Borders, thresholds and transitions are, at times, important components in any security architecture. They order and control spatial access and influence the speed and form of movement.

### **Architecture as a system of velocities**

Architecture can therefore be seen as a **system of velocities**.

Architectural structures encompass their own speeds and/or rule over and control the speeds of the surrounding world via their intensity and rhythm. They are directly implicit in the production of speeds. For example, urban street space is sub-divided into paved and high-speed zones in the form of different lanes for motor vehicles and slower bicycles, and pavement for pedestrians.

Lanes, roads and paths are architectural territories with regulated speeds. In the city we are also familiar with cobblestone pedestrian zones designed for leisurely strolls, park areas with tortuous gravel paths and grass areas for resting, or dead straight roadways for high-speed travel. Buildings also have varying speeds and intensities, which do not only connect to the user's bodily movements. An ornate baroque palace invites visitors to carefully reflect upon its pomp and circumstance and seems to suggest a place for contemplation; whereas sleek, modern and

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[6] Cf. Alexander, Christopher: *The Timeless Way of Building*. New York: Oxford University Press, 1979, pp.365.

[7] Cf. Bourdieu, Pierre: *Entwurf einer Theorie der Praxis*. Frankfurt a. M.: Suhrkamp Verlag, 1970, pp. 63.

[8] Cf. Von Meiss, Pierre: *Vom Objekt zum Raum zum Ort. Dimensionen der Architektur*. Basel/Berlin/Boston: Birkhäuser Verlag, 1993, pp. 156 ff.

purpose-oriented structures tend to focus more on dynamic elements that seek to avoid the superficial and concentrate on the use of function.

### Dromologi. Paul Virilios theory of velocities

The French city theorist, Paul Virilio, has developed the idea of dromology, a theory of speed which links the notion of evolutionary technology – and thereby architecture – with the universal regulation of speed. The example of the war machine, of which architecture is a primary component, illustrates these stages of evolution and the corresponding mutual dependencies.

### War machine

Acceleration and delay are architectural characteristics that also play an essential role in security and war. Architecture thereby becomes a **war machine** that affects the war and likewise becomes the form of war. Architecture and war's mutual dependence as a continuation of politics by other means [9] becomes apparent not only through the system and human behavioural patterns. Architecture in the shape of our constructed surroundings affects human behaviour, which again itself is the source of diversity of architectural form.

For Virilio, war is the spiritual foster parent of any development that is relevant to society. He sees war as the origin of the city, and therefore implicitly, politics, as the *polis* shares the same etymological root as *politics*. [10]

The phenomena of politics/war, architecture and technology are thereby linked through the logic of speed. Speed is the absolute and central dimension, whose inherent regularities are reduced to three fundamental dromological principles that are to be understood as regulative for all technological and anthropological developments. [11]

The evolutionary history of war – from early siege warfare to wars of annihilation, and to its contemporary forms, like information wars – is illustrated by examples of architecture. Forms of war find their counterparts in the architectural expressions of a given era.

In this context, architecture fulfils both active and passive tasks.

An architectural structure exercises power through its abilities to directly or indirectly, physically or visually dominate a given context. An architectural structure influences adversaries' strategies and tactics and thereby controls outer movements on one side, by which it effectively

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[9] Cf. von Clausewitz, Carl: Vom Kriege. Reinbek bei Hamburg: Rowohlt Taschenbuch Verlag, 2004.

[10] Cf. Virilio, Paul: Lotringer, Sylvère: Der reine Krieg. Berlin: Merve Verlag, 1984, pp.7.

[11] Cf. Brügger, Niels: Virilio. Essays om Dromologi. Frederiksberg: Introite! Publishers, 2001, pp.5.

organises and orders inner movements on the other. In times of war and peace, architecture consists of ambivalent structures of limitations and possibilities.

### **Terrorism. The new form of war involves architecture**

**Terrorism** and “War on Terrorism” are contemporary forms of waging war. It encompasses wars of information and random and asymmetrical wars, which also give rise to the possibility of architecture as a system of communication and a weapon to be utilised. Terrorism helps itself to public infrastructure to spread its message of fear through fertile media outlets. Destruction of and via architecture is only one means through which the modern architectural war machine displays its impact. The occupation of dominant geographical key positions and via permanent architectural structures stands in contrast to the destruction of symbolic buildings under the force of destructive energies, which are structural possibilities in any technology.

Whereas the active production of architecture in the context of war-related objectives is mostly subordinate to political and military ruling mechanisms and can assume many forms (walls, the drawing of borders, buildings, fortresses, military bases, etc.), safety precautions against terrorist attacks for valued units (assets) are allowed to be structured by using characteristic security parameters and stages.

### **Territorialisation, de-territorialisation and re-territorialisation**

The many-sided fear of terrorism and criminality prompts defensive architecture’s antiquated and newer patterns to emerge. Beyond an evolutionary movement of **territorialisation and de-territorialisation**, security architecture **re-territorialises** in new forms and old patterns. Evolution goes from nomadic territorialisation to tribal societies in protected life space, from city and feudal states to the expansion of local borders in a movement of de-territorialisation towards the building of empires and nation-states with external colonies and remote borders– to almost borderless communities of supranational, private, public or military organisations and institutions. Global and borderless capital and information societies are now only battling enemies from within. This again leads to a re-territorialisation of power structures under the establishment of new architectural borders, barriers and limitations. The once disappeared city wall is experiencing something of a renaissance in perimeter and access control at corporations, public institutions and private gated communities. Jeremy Bentham’s panoptic principle has re-emerged in architecture through surveillance cameras and biometric control measures.

## **[ctrl][space]. Architecturally controlled space and the global environment**

As a new phenomenon, **[ctrl][space]** emerges as architecturally controlled space, which in turn is a means of controlling space and surroundings. **[ctrl][space]** combines architectural space with security considerations. It territorialises, differentiates and segregates; it raises obstacles and creates possibilities in the name of security, but it distinguishes itself from Foucault's disciplinary space in certain key aspects. **[ctrl][space]** pervades all societal structures and presents a danger through its totalitarian mechanisms. Surveillance measures combined with telecommunication technology allow contemporary societies of control to emerge, and new strategies for solving architectural problems under the threat of terror must therefore be found and understood. The architectural war machine is experiencing a renaissance. The different risk analyses of authorities and security consultants lead to several new guidelines and regulations that are to contribute to the securing of threatened infrastructure. Doing so directly affects the organisation, design, construction and materialisation of architectural structures, by which cultural and aesthetic aspects are inadequately taken into consideration. In short, culturally-responsible architecture from a holistic viewpoint is what's lacking. This results in a territorially and socially- segregated environment consisting of exclusive architectural structures of well-defined fear, faceless, omnipresent surveillance and indefinable **anxiety**.