INTRODUCTION

Berlin is a city of profound contemporary design opportunities. Twenty-first century Berlin is a dynamic palimpsest of its disrupted history, one that is actively unfolding as the city and the German state attempts to resurrect Berlin's presence as a global capital. In contemporary Berlin, opportunities abound for architectural intervention that can potentially have broad urban, cultural, and economic ramifications.

The Berlin Design Studio will focus on "urban architecture," that is, an architecture that is responsive to the formal, cultural, and economic realities of the city. The studio will engage urban sites in the heart of Berlin that are currently being considered for redevelopment. Students will consider architectural uses that will contribute to the reconstruction of the economic and social fabric of the city. Students will also incorporate the rigorous building codes for sustainable design that directly affect contemporary architecture.

"The union between the past and the future exists in the very idea of the city that it flows through in the same way that memory flows through the life of a person."
- Aldo Rossi, The Architecture of the City

BOUNDARIES

New boundaries that are superimposed onto an existing urban fabric, whether they are physical, political, economic, or infrastructural, will transform a city's urban morphology. Once an impediment to urban development is created, new development in a city will conform to the new boundary creating a new urban morphology. Over the long term, a trace of the new morphology will then persist although the original impediment has been removed.

Two concurrent examples of superimposed urban boundaries can be found in both Berlin and Boston. Berlin's urban form was significantly altered by the presence of the Berlin Wall between 1961 and 1989. For the period of the wall, all urban connections were funneled into a few carefully controlled checkpoints along the wall. Once the wall was both politically and physically removed, the void strip running through the heart of the city created by the wall and its 100 meter wide "death strip" represented new development opportunities for a unified Berlin.

In 1959, two years before the construction of the Berlin wall, the city of Boston saw the completion of the Central Artery, a 2.4 kilometer elevated highway through downtown Boston. This six-lane highway effectively truncated the urban connections between the North End and the Boston Harbor from the rest of Boston's downtown urban fabric. In 1991, two years after the demise of the Berlin Wall, construction began on the "Big Dig," the massive infrastructural project to suppress the Central Artery underground. Once the elevated highway was removed, a linear park was established in the newly created urban void.

An analysis of how these two cities responded to the new urban territory created by the demise of these analogous urban boundaries tells a much different story about how political power utilizes urban form as a catalyst for urban development. The unification of East and West Berlin sought to fuse a divided city that had developed under vastly different political, urban, and architectural ideals. Urban form in both East and West Berlin responded to the contrasting ideological paradigms of collectivism versus individualism, and economic socialism versus capitalism. Additionally, the newly unified German state decided to return the nation's capital to Berlin: Post-Wall Berlin was to signify reunification for the whole nation. An ambitious plan of "critical reconstruction" was begun to stitch the city back together using architecture to fill the void of the urban boundary.
In contrast, in Boston the urban void produced by suppressing the Central Artery was left as an open "green space" thereby displacing one urban boundary with another. The politics of anti-development prevailed: open space advocates and the powerful Kennedy family prevailed to establish the Rose Kennedy Greenway. The Greenway has remained as an under utilized open space caught between lanes of fast moving surface-road traffic. A few of its parcels where Big Dig ramps come to the surface were designated for museum buildings, but not enough private money has been forthcoming to sponsor the projects.

SITE

Your studio project site will engage an area of Berlin directly affected by the presence and then demise of the Berlin Wall. At the corner of Zimmerstraβe and Friedrichstraβe stood one of the most recognizable artifacts of the Cold War: Checkpoint Charlie. Here, guard stations from communist East Berlin and democratic West Berlin faced off at one of the few sanctioned border crossings for the wall. Prime development parcels at this intersection are still vacant since the demise of the wall in 1989.

"The value of history seen as collective memory, as the relationship of the collective to its place, is that it helps us to grasp the significance of the urban structure, its individuality, and its architecture which is the form of this individuality.
-Aldo Rossi, The Architecture of the City

PROGRAM

Your studio project will be a mixed-use complex of commercial and residential spaces to reflect the urban, economic, and programmatic realities of this important intersection. Also, you will develop an additional use that will define your architecture's program. A "use" is the functional element that your architecture needs to serve: a "program" is a socio-cultural agenda that is implied by your uses, your site, and the expression of your architecture [typos, topos, technē: Kenneth Frampton, Studies in Tectonic Culture]. Your proposed use will both resonate with the other two uses and give your project an identifiable cultural, political, or economic program. Your total square meters of your building will be 4.5 times your parcel area, or a Floor Area Ratio (FAR) of 4.5. Your uses are as follows:

**Commercial: 10% of your total m²**
- Street level retail: 80% of Commercial m²
- Back office and storage space: 20% of Commercial m²

**Residential/Hotel: 60% of your total m²**
- Hotel lobby: 5% of Residential/Hotel m²
- Hotel offices: 5% of Residential/Hotel m²
- Hotel rooms: 90% of Residential/Hotel m²
- Meeting/flex space [to be temporarily divisible into 3 sections]:

**Proposed use: 20% of your total m²**
- Develop uses based on your urban analysis that will individualize your "offering" to the city of Berlin
- Write a list of your proposed uses in m²

**Common services: 10% of your total m²**
- Identifiable entrances for each program at street level
- Common circulation and two means of egress for each level
- Passenger elevators: 20m²
- Freight elevator: 10m²
- Loading dock: 30m²
- Loading and unloading vehicular access
- Mechanical rooms [distributed throughout building]: 50m²
- Basement level

**Open space: % as required**
- It is required to maintain a minimum of 20% of your parcel as open space
EXERCISE 1: MORPHOLOGY ANALYSIS
You will first develop a comparative analysis of these urban boundaries in Berlin and Boston. You will generate a minimum of three graphic diagrams for each city's morphology before, during, and after the boundary superimposition. Then you will develop minimum of three diagrams that graphically explain your conclusions regarding the evolution of the affected urban morphologies. These analyses should respond to the following questions: How does the city trace its past in its present form? How does urban form transform after experiencing an urban superimposition? How does the city embody its memory?

EXERCISE 2: SITE MODELS
Each studio section will build two site context models. The first model will be an urban morphology model using wire cut foam at 1:500 metric scale [approximately 1/100" = 1'-0" scale]. This will extend from Wilhelmstraße to Markgrafenstraße and from Leipziger Straße to 30m south past Kochstraße. The second model will be an architectural context model using chipboard and showing basic fenestration of existing buildings of the 4 surrounding blocks at 1:100 metric scale [approximately 1/16" = 1'-0" scale]. This will extend from Schützenstraße to Kochstraße and from Charlottenstraße to 130m west past Friedrichstraße.

REQUIREMENTS
Only new and complete work will be reviewed at any desk crit, pin-up, or jury. We will not review work that has already been presented at any desk crit, pin-up, or jury. A consistent application of serial iterations is highly encouraged. Process and progress will affect your grade. We grade each studio session for the quality and quantity of the work. Computer output issues are not acceptable excuses for incomplete or missing work. The requirements are due for each review, regardless of the media choices that you make. You must attend every studio review and, at minimum, complete all requirements for the each review.

ATTENDANCE AND PARTICIPATION
The studio will meet one day a week all day on Mondays. Each absence will reduce your grade. One unexcused absence will automatically drop your grade by one letter-grade, e.g., from an A- to a B-. More than 3 absences will constitute an automatic failure of the course. If you cannot attend a class, you must communicate this to your professor. If you have flu-like symptoms, you should not come to class, and should communicate this to your professor immediately. Attendance is mandatory at all critiques. All students are required to participate in class discussions; active dialogue is encouraged and required.

EVALUATION
Your final semester grade will be calculated as a composite of the following criteria:
Class participation: 10%
Preliminary Critique: 20%
Midterm Critique: 30%
Final Critique: 40%

PREREQUISITES
This course requires that the following prerequisites be completed satisfactorily before you will be allowed to take this course. If it is discovered that you have not completed this prerequisites, you may be dropped from the course at any time during the semester:
ARCH 2140 Urban Institutions Studio

GRADING
The Architecture Department guidelines for studio course grading can be found at the following web site:
http://www.architecture.neu.edu/student_resources/grading_policy/studio_course
ACADEMIC HONESTY

Northeastern University is committed to the principles of intellectual honesty and integrity. All members of the Northeastern community are expected to maintain complete honesty in all academic work, presenting only that which is their own work in tests and assignments. If you have any questions regarding proper attribution of the work of others, contact your professor prior to submitting work for evaluation. For more detail refer to: http://www.northeastern.edu/osccr/academichonesty.html

SCHEDULE

Wk 1   Mon 10 Jan:   Studio introduction
       Fri 14 Jan:   Site visit, meet at Checkpoint Charlie, corner of Zimmerstraße & Friedrichstraße at 10.00
Wk 2   Mon 17 Jan:   Border and site morphology analyses due
Wk 3   Mon 24 Jan:   Urban morphology site model due; concept design models due at 1:500
Wk 4   Mon 31 Jan:   Architectural context site model due; proto-design drawings due at 1:100
Wk 5   Mon 7 Feb:   Proto-design drawings and model due at 1:100
       Fri 11 Feb:   Required work period: studio open 10.00-20.00
       Sat 19 Feb:   Required work period: studio open 10.00-20.00
Wk 6   Mon 14 Feb:   Preliminary critique drawings and all models
Wk 7   Mon 21 Feb:   Required travel
Wk 8   Mon 28 Feb:   Spring break
Wk 9   Mon 7 Mar:   No class: Rosenmontag
       Tue 8 Mar:   Studio
Wk 10  Mon 14 Mar:   Studio
       Fri 18 Mar:   Required work period: studio open 10.00-20.00
       Sat 19 Mar:   Required work period: studio open 10.00-20.00
Wk 11  Mon 21 Mar:   Midterm critique
Wk 12  Mon 28 Mar:   Studio
Wk 13  Mon 4 Apr:   Studio
Wk 14  Mon 11 Apr:   Studio
Wk 15  Mon 18 Apr:   Studio
       Thu 21 Apr:   Required work period: studio open 10.00-20.00
       Fri 22 Apr:   Required work period: studio open 10.00-20.00
Wk 16  Mon 25 Apr:   Easter: no class
       Wed 4 Apr:   Final critique

This schedule is subject to change during the semester: you will be notified of and responsible for any changes.
NORTHEASTERN UNIVERSITY SCHOOL OF ARCHITECTURE

Berlin Design Studio
ARCH 3155 Monday 10.00-17.00 Spring 2011

INSTRUCTORS
Bettina Kraus, Partner, Wiel Arets Architects
Roland Poppensieker, Architecture Program Director, Lexia in Berlin
Peter Wiederspahn, Associate Professor, Northeastern University

EXERCISE 2: URBAN SITE MODEL: Due Monday 24 Jan at 10.00

All 25 students will build one site context model. This model will be an urban morphology model using wire cut foam at 1:500 metric scale [this is approximately 1/100" = 1'-0" scale]. This model will extend from Wilhelmstraße to Markgrafenstraße and from Leipziger Straße to 30m south past Kochstraße.

You will spit up the responsibilities and tasks among all 25 students. Then, you will construct a base that will not deform. You can consider the site as flat. You will then add a layer of cardboard to cover your model base. Then, using the same cardboard, you will add a layer to show the curb lines. To do this, you will cut out cardboard in the shape of each urban block out to the sidewalk curb line.

Next, you will determine the height and the shape of all of the buildings in the model area. This may require another visit to the site area. Finally, using foam and the foam cutter, you will construct the massing of all of the buildings in the model area. All model parts must be fixed to the base so one can turn the model upside-down without losing any pieces.

EXERCISE 3: PROPOSED ADDITIONAL USE: Due Monday 24 Jan at 10.00

Each student will propose the additional use that will constitute 20% of your overall floor area. This decision should be based on both your analysis of this part of the city and the uses that constitute the other 80% of the floor area. Also, this use will define what your larger urban, social, cultural, economic, and/or political program will be for your architecture. This proposed use may not only reflect what you have found in the site area, but also what you do not find in the site area. Produce one image that conceptually explains your choice of your proposed use.

You will then cut-and-paste your proposed use into the program already provided in the syllabus [also copied below]. This will then be the program you shall use for the rest of the semester. Please include this as the first image in your presentation described below.

EXERCISE 4: URBAN CONCEPT MODELS AND DRAWINGS: Due Monday 24 Jan at 10.00

Produce a concept model that will define an image for all 8 parcels together. This concept model is a stage in the design process that is in between "pure analysis" and "pure design." You may work on this concept model in groups to develop an overall urban strategy for full site. This model may include the concepts of, but not be limited to, morphological responses to the existing context, programmatic responses to the existing context, and how your new program will augment the district. Also make a corresponding impressionistic plan and section drawing of this concept to be digitally projected. These do not need to be an accurate or conventional drawings.

Next, produce a concept model that will address your individual parcel. This model may include the concepts of, but not be limited to, overall building massing, building image, internal spatial and sectional organization. Also make a corresponding impressionistic plan and section drawing of this concept to be digitally projected. These do not need to be an accurate or conventional drawings.
PROGRAM [from the Syllabus]

Your studio project will be a mixed-use complex of commercial and residential spaces to reflect the urban, economic, and programmatic realities of this important intersection. Also, you will develop an additional use that will define your architecture's program. A "use" is the functional element that your architecture needs to serve: a "program" is a socio-cultural agenda that is implied by your uses, your site, and the expression of your architecture [typos, topos, techné: Kenneth Frampton, *Studies in Tectonic Culture*]. Your proposed use will both resonate with the other two uses and give your project an identifiable cultural, political, or economic program. Your total square meters of your building will be 4.5 times your parcel area, or a Floor Area Ratio (FAR) of 4.5. Your uses are as follows:

**Commercial: 10% of your total m²**
- Street level retail: 80% of Commercial m²
- Back office and storage space: 20% of Commercial m²

**Residential/Hotel: 60% of your total m²**
[You may consider this part of the program as residential apartments, hotel rooms, or a combination of both depending on your proposed use. You may adjust the m² the lobby, office and rooms accordingly.]
- Hotel lobby: 5% of Residential/Hotel m²
- Hotel offices: 5% of Residential/Hotel m²
- Hotel rooms: 90% of Residential/Hotel m²
- Meeting/flex space [to be temporarily divisible into 3 sections]:

**Proposed use: 20% of your total m²**
- Develop uses based on your urban analysis that will individualize your "offering" to the city of Berlin
- Write a list of your proposed uses in m²

**Common services: 10% of your total m²**
- Identifiable entrances for each program at street level
- Common circulation and two means of egress for each level
- Passenger elevators: 20m²
- Freight elevator: 10m²
- Loading dock: 30m²
- Loading and unloading vehicular access
- Mechanical rooms [distributed throughout building]: 50m²
- Basement level

**Open space: % as required**
- It is required to maintain a minimum of 20% of your parcel as open space
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Peter Wiederspahn, Associate Professor, Northeastern University

EXERCISE 5: FROM CONCEPT TO DESIGN: Due Monday 31 Jan at 10.00

Your design project has progressed from urban analysis to group-coordinated conceptual diagrams, architectural conceptual diagrams, and program development. For this next week you will focus on your architectural design. Based on your program, produce the following:

1:500 scale model to fit into the site model and to fit with the models in your section
1:500 scale figure/ground drawing with your colleagues’ schemes included [this can be done jointly]
1:100 scale plan of ground level
1:100 scale plan of any other typical level
1:100 scale section through your primary interior and exterior spaces
A revised program list page if necessary
A thesis statement [see below] to be the heading of your program list page

Your plans and sections will be preliminary and should show basic elements, such as monumental stairs [open stairs not used for fire egress], fire egress stairs, elevators, basic room layout, basic ceiling heights. This process will mandate that you become familiar with the specific dimensions of your uses. Feel free to develop more than one option to test variations of your basic concepts.

EXERCISE 6: THESIS STATEMENT: Due Monday 31 Jan at 10.00

Write a maximum 50 word thesis statement that identifies your primary concepts. You may use an outline form instead of prose to maximize word efficiency. Express what your most essential concepts are, e.g., program, urban form, sectional organization, building performance, building image. Note that this paragraph is 50 words long.
Berlin Design Studio  
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Peter Wiederspahn, Associate Professor, Northeastern University

EXERCISE 7: FROM CONCEPT TO DESIGN: Due Monday 14 Feb at 10.00

We will have a preliminary critique in two weeks on 14 Feb 2011. [In between then and now, you will also spend a few days in Hamburg.] You shall produce the following drawings and models to present via digital projection and A3 [11x17] prints. Since this is a preliminary critique and there will be no outside critics, think of your work as “work in progress.” This means you can present multiple ideas or iterations, incomplete ideas that are nonetheless conceptually compelling, and architectural and urban precedents that approximate your design thinking.

Program Statement and Use List [see below]
Any conceptual sketches, drawings, or models you feel necessary to best explain your ideas
1:500 scale model to fit into the site model and to fit with the models in your section
1:500 scale figure/ground drawing with your colleagues’ schemes included [this can be done jointly]
1:100 scale plan of ground level
1:100 scale plan of any other typical level
1:100 scale section through your primary interior/exterior spaces [include site info, e.g., streets, buildings, etc.]
1:100 scale street elevation with shadows to show depth [include site info, e.g., streets, buildings, etc.]
1:100 scale preliminary model

Your plans and sections will be preliminary and should show basic elements, such as monumental stairs [open stairs not used for fire egress], fire egress stairs, elevators, basic room layout, and basic ceiling heights. This process will mandate that you become familiar with the specific dimensions of your uses. Feel free to develop more than one option to test variations of your basic concepts.

EXERCISE 8: PROGRAM STATEMENT AND USE LIST: Due Monday 14 Feb at 10.00

Write a maximum 50 word program statement that identifies your primary concepts. You may use an outline form instead of prose to maximize word efficiency. Express what your most essential concepts are, e.g., program, urban form, sectional organization, building performance, building image. Your program statement should be at the top of the page that contains your use list.