Space and discourse interleaved: intertextuality and interpretation in the education of architects

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This study examines a sequence of instructional work taken from the practice of critique in architectural education. In analyzing the ways in which one instructor assesses and interprets how a group of students have worked with references to other architects and to well-known buildings, the study provides a respecification of notions of interpretation and intertextuality as practical features of design work: design anticipates professional interpretation, and is thus prospectively oriented towards the retrospective ascription of intertextual meanings. The sequence revolves around highly ideologically charged sites. The instructional work around the use of references to these sites highlights the modes of architectural reasoning implicated in the competent handling ofideology in relation to aesthetic expression. Finally, the space of the critique itselfis shown as a rich site for the reproduction of architectural knowledge, in which multiple spatial and disciplinary contexts are embedded through representation, discourse, and embodied practice.

Keywords: architecture; education; interaction; instruction; intertextuality; interpretation; ethnomethodology

Introduction

Architecture as a discipline is deeply rooted in, and reflexively oriented towards, history – both the history of architecture itself and the larger context of unfolding sociopolitical events. Architectural proposals are consistently seen in terms of the discipline's understandings of extant schools, eras, traditions, events, places, and previous works. Phrased otherwise, an architectural proposal is in a fundamental sense an intertextually oriented and situated object. This orientation has a long tradition. Around 25 BC, the Roman architect Vitruvius wrote about the constituent competences of architecture. Amongst these competences, knowledge of history is emphasized: the architect needs to be aware of the meaning of architectural forms within the established disciplinary discourse. Vitruvius exemplifies:

Consider, for example, if anyone has decided, in place of columns, to insert statues of women clad in stolae – the so called Caryatids – into his work, and above them set cornices and mutules. For those who inquire he will give the following rationale: the Peloponnesian city of Caryae had sided with the enemy, Persia, against Greece. Subsequently, the Greeks, gloriously delivered from war by their victory, by common

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agreement declared war on the Caryates. And so, when they had captured the town, slaughtered the men, and laid a curse on the inhabitants, they led its noble matrons off into captivity. Nor would they allow these women to put away their stolae and matronly dress; this was done so that they should not simply be exhibited in a single triumphal procession, but should instead be weighted down forever by a burden of shame, forced to pay the price for such grave disloyalty on behalf of their whole city. To this end, the architects active at the time incorporated images of these women in public buildings as weight-bearing structures; the notorious punishment of the Caryate women would be recalled to future generations. (1999, 22)

In the passage, Vitruvius adopts the voice of an architect who is asked to present the rationale for using certain ornamental elements. This rationale has both a prospective and a retrospective dimension: it is grounded in historical events, and it is intended to influence the ways in which future generations see the building. In Vitruvius' account, the use of Caryatids instead of columns is not just an aesthetic choice. It also works as a reminder of war, defeat, shame, and guilt. Specifically, it is a reminder of the dire consequences of insurgence. This, however, is not something that anyone can see by just looking at the building. Rather, it requires that the site, the building, and its details are seen in the light of historical events and in terms of certain historical and architectural discourses. The gaze that sees the building in this way is an educated one. Of course, the centrality of the educated gaze is not specific to architecture (see, for example, Goodwin 1994). The need to refer or otherwise relate to contemporaries, traditions, predecessors and precedents, moreover, appears to be shared by many fields. The specifics of how such relating is done, however, will be shaped by the particular concerns and traditions of the discipline.

In introducing history as a requirement for competent architectural work, Vitruvius thus sets a challenge for the education of architects: to enable students to work with relevant historical connections – both in the creation of architectural proposals and in providing informed accounts of the rationality of these proposals. Today, architectural education is commonly organized as a series of design projects complemented with lectures, readings, and assignments. Throughout the projects, which usually last for the duration of a course, students address some sort of design issue – either individually or in groups. At the end of the course, the students and their projects are assessed and evaluated. Reflecting the project-based structure of the education, as well as the complexity and multifaceted nature of the domain, assessments such as written tests are rare, in favor of what is variously called design reviews or critiques. These reviews begin by students presenting their projects to an audience of staff members, professional architects, and peers. After the presentation, staff members and the invited professionals comment, criticize, and discuss the students' work, elaborating on the strengths as well as the weaknesses of the presented projects. There are of course numerous issues that are raised in these reviews; among other things, students are accountable for presenting their projects as coherent, functional, aesthetically appealing and sound constructions, and for designing their graphical presentations in a way that makes their design reasoning available for assessment. These events also provide an opportunity to raise questions concerning intertextual connections and sociohistorical embeddedness: are the students able to place their particular solutions within a disciplinary geography of predecessors, contemporaries, and traditions; do they accomplish such placement whilst balancing tradition with innovation, and with the particular contextual features of the project at hand? A stock of knowledge of existing works of architecture – designs having currency in architectural discourse, as masterpieces or failures, as typical for an era, or as otherwise iconic – is actualized and made relevant both in students' presentations and in the critics' responses. While lectures and readings can present students with architectural history in recounted form, achieving the relevancy of the historical situatedness of a student's proposed projects requires the active use of disciplinary perception, interpretation, and articulation in relation to the design of space.

Taking an interest in the topics of intertextuality and interpretation, this study provides an analysis of a video-recorded episode from a design review. In the episode, an instructor discusses a student project that has incorporated the design language of Günther Domenig's addition to Albert Speer's Congress Hall in Nuremberg. The instructor points out that Domenig's design was explicitly formulated as an attempt at disrupting and deconstructing the original structure, as well the ideologies connected with it. She then argues that this metaphorical baggage interferes with the perception of the students' project and with the qualities of their design. In doing this, she raises several central issues of interpretation, reception, intention, and historicity. In our analysis, these issues are shown as a participants' concern and as a matter of instruction. The deeply intertextual quality of architectural design requires the designer to be reflexively aware of the politically charged meanings communicated by particular expressions, constructions, and design solutions. Before turning to the particulars of this episode, we will briefly discuss the ways in which notions of intertextuality and interpretation have been treated within different academic traditions. The aim of this discussion is to argue that issues parallel to those discussed in the academic literature are also central in various practical endeavors such as critique sessions in architecture education – and that they therefore can be made into topics of empirical investigations.

Intertextuality and interpretation: analysts' and members' concerns

The term intertextuality was introduced by Julia Kristeva (1980) in an essay that combined the structuralist linguistics of Ferdinand de Saussure with the dialogic literary theory of Michail Bakhtin. In line with Bakhtin, Kristeva holds that all texts contain a multiplicity and diversity of voices and meanings: "any text is constructed as a mosaic of quotations; any text is the absorption and transformation of another" (1980, 66). In the essay, she presents what can be described as an ontological position on the composition of text. Here, the notion of intertextuality does not primarily refer to allusions, explicit references, or other intentional acts of the author. Rather, a main argument is that all texts inevitably contain unintentional references and relations to other texts, and that texts derive their meaning through these relations rather than from the intentions of an author. In a similar way, Barthes claims that, "the birth of the reader must be at the cost of the death of the Author" (1977, 148). In announcing the death of the modernist concept of an author -a person who exerts authority and control over the meaning of a text through his or her intentions - Barthes replaces it with the notion of a scriptor without biographical past and without control over the text after its writing. Much like a scribe, the scriptor does not need to understand the text and does not have any preferential rights of interpretation. Instead, it becomes the task of the reader to interpret the text through tracing the intertextual relations inherent in it. Within literary theory, however, this emphasis on the reader has not remained without criticism. As argued by Irwin, for instance: "There does not seem to be any criterion by which to judge such intertextual readings, except the hedonistic 'pleasure of the text.' [...] What we are left with, then, are rather banal and idiosyncratic interpretations" (Irwin 2004, 236).

While Kristeva, Barthes, and Irwin primarily discuss intertextuality in the domain of literature, the term has been adopted by numerous scholars and has acquired many diverse uses; for example, within critical discourse analysis (Fairclough 1994). For both literary theorists and critical discourse analysts, intertextual analysis is a constructive task. It is, for instance, through the interpretative work of the professional analyst that intertextual connections are established between Nabokov's Ada and his earlier book Lolita (Thibault 1991). Similarly, relations between personhood and literacy practices are revealed through "constructing an analysis of intertextual links between issues of culture, language, and power" (Egan-Robertson 1998, 455). However, issues of intertextuality and interpretation are not only central to professional analysts and critical theorists. In discussing studies of classroom interaction, Gee and Green note that "members and analysts alike must consider how members, through their interactions, propose, acknowledge, recognize, and interactionally construct as socially significant past, current, and future texts and related actions" (1998, 132). In practices where such recognitions and constructions are demonstrable as courses of practical inquiry, we can begin to talk about intertextuality being managed as a participant's concern. This does not necessarily mean that members call what they are doing "intertextuality", only that similar concerns as those engaging the professional analyst form part of the practical work of the setting.

The aim of the paper is to explicate and discuss issues such as these in the context of the instructional practice of critique in architectural education. The approach of the study can be formulated through the ethnomethodological notion of *respecification*. This is an analytical procedure, in which a methodological distinction – such as the difference between fact and opinion, between intention and perception, or between the perceptions of an expert and those of a novice – is treated "as a matter of routine, local relevance of practical inquiry" (Lynch and Bogen 1996, 273). Then, the analyst describes "the way members make use of the distinction or concept, and how they handle any problems associated with its use, and show how this use is embedded in routine courses of action" (Lynch and Bogen 1996, 273). Rather than providing alternative definitions, the "ethnomethodological trick" is thus to treat issues of, for example, intertextuality and interpretation as members' concerns. A consequence of this is that:

it is not the sociologist's function, qua sociologist, to go about claiming what someone's 'true' motives were, nor to assert unambiguously how someone may privately have interpreted some ambiguous situation. This is members' practical business for which they have occasioned, defeasible but public criteria. (Coulter 1989, 59)

It is this practical business, the grounds and criteria for doing interpretation in the context of architectural critique, to which we turn in the analyses. In examining intertextual interpretation as a members' matter, we demonstrate how the impressionistic and "hedonistic" interpretations envisaged by Irwin are structured in

locally rational and reasoned ways; not in the first instance by orders of "hegemonic struggle" (Fairclough 1994, 103) but by the practical concerns of architectural design and education. The sense in which, for instance, an architectural design may be conceived as "a mosaic of quotations" becomes apparent in and as the work of professional interpretation and assessment, which, as we will show, involves a complex array of talk, gestures, and objects. Treating intertextuality and interpretation as members' issues thus means that the analytical interest is directed towards specific concerns and characteristics of the investigated site. In architecture, the objects of intertextual interpretation are not just words and texts, but also, and centrally, plans, sketches, images, and other renderings of place and space. In order to make this a central part of the analysis, appropriate data of the investigated site are needed.

Data and analytical approach

The study is centered around an analysis of one episode from a second-year critique session, drawn from a larger corpus of video-recordings (70 h) shot during the spring of 2007 at a school of architecture in Sweden. The proposal being discussed in this episode is the solution by one group of students of the assignment of adding to and redesigning a local parish house in a small municipality in Sweden, to accommodate a growing number of visitors. Apart from the design review, the students' proposals are also presented to representatives of the church, with the aim of providing potentially valuable input for the imminent redevelopment of the parish house. The name of the course in which this design project was situated is "The Spaces of Work" [Arbetets Rum].

The analyzed excerpts span a few minutes of interaction, constituting a single episode. Single case analyses have a central place in ethnomethodology and conversation analysis. The status of the single case hinges in part on the ethnomethodological insistence on seeing actual witnessable activities – or "ordered events on single occasions" (Sacks 1992, 298) – as the locus of social order, rather than the hidden structures that lie behind them, and which classical sociological analysis works to uncover. In the context of studies of classroom interaction, Macbeth summarizes:

The analytic status of the single case, meaning for "status" both its availability and recommendation for analysis, is tied to a collection of first understandings about the order of ordinary affairs, their analyzability and primacy as the locus of the order we could be after; that local scenes are the stuff of social order, displaying in their course a methodic, "lived" orderliness; that they are organized and orderly [...]; that social order, and classroom order, is a local, methodic phenomenon, consisting of the competencies and practical accounts of persons on the scene, and analyzably so. (1990, 191)

While often analyzing collections of instances of some conversational device – for example, repairs, question–answer sequences, and so forth – Conversation Analysis (CA) has from its inception been concerned with finding ways to "describe, adequately and formally, singular events and event sequences" (Hutchby and Wooffitt 1998, 121). Analyses of single cases often involve drawing on the body of findings of patterns of conversational interaction the tradition has engendered – phenomena such as repair, conditional relevancies, preference structures, reported speech – that are relevant to understanding the local production of the single occasion (Schegloff 1987).

When analyzing cases from disciplinary settings, their availability and analyzability hinges on setting-specific understandings and competences. As noted by Heath (2004), analyses of specialized settings often require combining records of interaction with additional sources of information in order to understand the disciplinary sense of what participants are doing. In this analysis, one method of accomplishing this is to unpack the disciplinary contexts made relevant and actualized in the episode. Textually, this unpacking will take the form of a twopart structure in the analysis: part one will consist of our expanding on some of the topics participants talk about so that their disciplinary significance may become available to the reader; part two will consist of detailed analyses of this talk, performed under the auspices of ethnomethodology and CA. Transcript conventions are adapted from the standard conversation analytic notation (Jefferson 1984). In order to make the original delivery of turns available, a two-line transcript is provided. Where deemed informative and relevant, images of gestures and embodied conduct of participants are included in the transcripts.

Managing intertextuality and interpretation in the design review

The critique session begins with a presentation by the students. In this presentation, plans, sketches, and other visual representations have a central place. Much like the architect in Vitruvius' account of the Caryatids, the students are expected to describe the rationale of the project. Among other things, the students in the analyzed session provide an account for the "expression" of the design proposal – what they "wanted" – in terms of historical connections. Excerpt 1 shows a small segment of this presentation. We use this excerpt to illustrate the students' references to other work rather than as grounds for a detailed analysis. Although it is evident to anyone that the students are referring to other architects and buildings, most of the historicity and disciplinary significance of these references is taken for granted and remains implicit – neither the talk nor the images expand on this. For us, the excerpt is used as a starting point for our unpacking of some of the historical groundings of

EXCERPT 1

Tim: so we have wanted (.9) in this visionary part then that we want to give Lindome Parish house a new exciting expression [...] and then we have had eh (.3) some different prototypes here then (.6) that we have worked with (.) like the concert house addition and then this (.9) fantastic (.3) Günther g- eh Günther Domenig's eh addition ((*points to image on poster, Figure 1*)) to eh Albert Speer's (.2) never finished congress hall in:: Nürnberg then (.7) e::h and we have had that with us through the project (.6) and there one can say that the important (.2) if you boil it down to that (.5) how we see an addition for it to work (.4) get a strong expression it's really important that you do something which is additive (.8) and then it's also like (.2) then you can do- (.3) reach interesting result at the same time that you are respectful to the old building (1.6) e::h (.3) and that has emanated in this (.3) ((*sweeping gesture towards poster, Figure 2*)) design concept then, that we have called LiebesCut then after (.7) Daniel Liebeskind and Cut as in our cutting in and adding.



Figure 1. Reichsparteitagsgelande (Area of the Reichsparteitage) in Nuremberg: Kongresshall (Congress Hall), Dokumentationszentrum Reichsparteitgelande (Documentation Centre Nazi Party Rally Ground), December 2004. Photograph by Stefan Wagner, http://trumpkin.de.

the students' stated rationale. This provides a background for understanding the ensuing critique, which picks up on the particular references invoked.

In the students' presentation of their design, it is evident that references to existing buildings and architects play a central role. Without elaborating it further, they mention "the concert house addition", which is a local building, and the images on their posters include Carlos Scarpa's work with Castelvecchio in Italy (see Coombs 1992). While these references are not expanded on, the reference to Domenig and Speer are discussed extensively when the critics take the floor. The building that the students refer to is Domenig's recent addition to the north wing of Albert Speer's congress hall in Nuremberg (see Figure 1). On their poster

presentation, the students write that when designing an addition, "the historical context of the building must be taken into consideration". Furthermore, Domenig's addition is described as being "fantastic from the point of view of expression", but also as "a clear ideological statement with a modern 'spear of glass' that pierces the Nazi congress hall".

In a sense, this placing of the project in a geography of predecessors resembles the textual practices of scientific writing. As noted by Anderson and Sharrock, social scientific studies are *authorized* through procedures of normalizing the interests and methods of the analysis, "taking the background as read" (1984, 106), and accommodating to a recognizable format that structures the ways in which the piece will be seen; that is, as conversation analysis, cognitive psychology, anthropology or the like. Here, the project is placed within a tradition of deconstructivist architecture by the citing of prominent architects; the validity of the design approach is provided for through textual and graphical practices interweaving the project's details with recognizable deconstructivist moves. However, "placing a piece in the context of widely known previous research makes possible a subsequent 'tagging' strategy claiming that the 'tagged-onto' piece has misinterpreted one or more of its sources" (Anderson and Sharrock 1984, 106). In the analyzed episode, an instance of such critical commentary is precisely what ensues.

The poster is an interesting intertextual space in itself; it juxtaposes, on a twodimensional surface, images of Domenig's intervention with textual interpretations of those images, and the students' suggested redesign of the parish house. It constitutes a pictorial and textual workspace (Lynch 1991) for the business of presentation and criticism. These images and texts are configured as hermeneutically interrelated; each provides a distinct object, which reflexively informs the reading of the others. The reader of the poster is invited to see the transformation and abstraction of elements in the images, via the stylized design concept (see Figure 2), to the students' plans. The latter are then seen as executions of professionally motivated and methodic procedures. However, any possible reading invited by this assembly, where "spaces and their properties are translated into other space-times" (McIlvenny 2008, 145), are only hypothetical, awaiting situated practices of interpretative work. The poster is brought to life through the practices of presentation and critique constituting the design review.



Figure 2. Image from student poster showing the design concept. Note: From left to right: the original building, the "LiebesCuts," and the proposed additions.

Nuremberg, Speer and Domenig's intervention

To provide for a better understanding of the work done in the critique session, a brief unpacking of some of the background and significance of the cited buildings and architects is in order. For this purpose, we turn to other textual sources than the texture of the interaction in the critique session itself, a kind of textbook knowledge that would be available to anyone setting out to explore the history of these buildings. This reading implies taking a step back in history, to the 1930s and one of the most significant architects working in National Socialist Germany – Albert Speer. The congress hall was part of the larger project of creating the Nazi party rally grounds. This particular project has in itself a long and highly politicized history. It is a clear example of the relation between architecture and ideology and also of architecture's predilection for engaging in intertextual references.

In his book "New German Architecture", Speer (1941) opens with a quote from Hitler to the effect that no people lives longer than the documents of its culture. Although such documents can take different forms, Speer proclaims architecture to be the leader amongst the fine arts. He argues that cultures where architecture takes a central role, rather than painting or sculpture, are the cultures that are remembered for their greatness. Furthermore, instead of regarding architecture as mere play or luxury, he wants it to be understood as a natural necessity: "Völker und ihre Führer fühlten innere Verpflichtung und Zwang, sich und ihre Zeit in steinernen Denkmälern zu dokumentieren" [People and their leaders felt internal obligation and coercion to document themselves and their time in stone monuments] (Speer 1941, 7).

This theme of connecting to past epochs, and creating monuments meant to last for hundreds of years, was central to Speer's work in Berlin and Nuremberg. "Everything about the rallies, from their choreography to the architecture in which they took place, was to proclaim permanence and continuity, and to connect the development of Hitler's Third Reich with the vast span of German history" (Brockmann 2006, 148). The site, the architectural style and expression as well as the materials, all served to buttress the ideology and goals of the Nationalsozialistische Deutsche Arbeiterpartei [National Socialist German Workers' Party]. That the decision fell on Nuremberg was connected to the fact that this was the place where previous rallies during the Weimar Republic had been held. The symbolism of the site was clear, situated southeast of the town center at the place of a memorial to fallen soldiers from World War I.

The Party Rally Grounds were to become the largest single complex of monumental government buildings ever constructed in National Socialist Germany. Albert Speer became involved in the development of the permanent setting, initially through his plans for the 1933 rally. Although the plans for the congress hall was readied by Ludwig Ruff, Speer was subsequently commissioned to integrate it into a unified complex comprising of Luitpoldhain arena, the Zeppelin field, the German stadium and the march field. With its rounded façade and three tiers of arches, the congress hall had a classical precedent in the Roman Coliseum (Jaskot 2000). The other buildings were similarly designed in a neoclassical style. Even though vernacular styles were favored in less monumental civic circumstances, party and government buildings in Nuremberg, Munich, and Berlin were predominantly neoclassical in style (James-Chakraborty 2000, 91). The neoclassical style was to be further implemented by means of structures with brick and stone cores, often with granite facings, thereby avoiding the use of steel or reinforced concrete. As pointed out by Jaskot, this aesthetic and method of construction "picked up on a well-established ideological campaign to promote the use of classical building techniques derived from ancient Greek and Roman sources" (2000, 57). The congress hall was thus in itself an illustration and instance of the deeply intertextual character of architectural practice. Like Vitruvius' example of the Caryatids, the design of the hall was reflexively oriented towards the prospective perception of the building by future generations, through the use of forms connected with a rich history of architectural precedents.

What the students refer to as "Günther Domenig's addition" adds another layer in this regard. The addition in question was built in 2001 to house the Documentation Centre museum showcasing an exhibition called Faszination und Gewalt [Fascination and Terror] covering, amongst other things, the history of Nazi Party Rallies, the "Nuremberg Laws" of 1935, and the Nuremberg trials 1945–1946, but also specifically issues of how to deal with the Nazi architectural heritage. As is visible in Figure 1. Domenig's addition breaks quite dramatically with the design of the original building by way of a glass-and-steel structure jutting out from the wall and up and over the roof of the congress hall. In the corpus of architectural writing there is an abundance of pedagogies in how to see this gesture. Even a cursory look into what has been written about the building reveals a host of overlapping versions of its meaning, including reports about the readings intended by Domenig himself. The image of the building is overwhelmingly that of an intentional disruption of, and a confrontational statement about, the existing structure. By way of example, Kugel (2002) writes in the Architectural Review, the year after the construction of the documentation center:

Domenig's new intervention impinges only on the Kongresshalle's northernmost courtyard block, but his tactics are unequivocally and admirably confrontational. Here the present grabs the past firmly by the lapels, driving a literal and symbolic wedge through the Reich's ponderous Cartesian geometry. The wedge can be read as many things, an artful knife gash or a cleansing blade of light, that scythes through the brooding masonry hulk with powerful economy and clarity in order to illuminate the building's past and its role in wider history.

This reading suggests that Domenig is explicitly confronting Speer's and the Nationalsozialistische Deutsche Arbeiterpartei's ambition to create a permanent memorial over National Socialism. Rather than following the "ponderous Cartesian geometry" of the congress hall, the addition describes a diagonal cut through the building; and in a clear break from neoclassicist style and materials, the documentation center is made of glass and steel. It is described as a "cleansing blade of light", illuminating the significance of the building in a radically different way than Speer intended. The formal elements of the addition are explained by the architect himself:

I used oblique lines against the existing symmetry and its ideological significance. To contrast the heaviness of the concrete, brick and granite I turned to lighter materials: glass, steel and aluminium. The historic walls are left in their original state without ever being touched by the new work. (Günther Domenig quoted in Brooker 2006, 5)

In an interview with Domenig in the *New York Times* (Erlanger 2001), the architect is furthermore reported to describe the project as an attempt to drive a "Speer", the German word for spear, into Albert Speer. This stated intention furthermore connects with Domenig's own biography. Being the son of a Nazi judge, Domenig says that "the museum gives me an opportunity to confront my own ideological past".

The critique

In the following, we turn to one critic's comments on the student project. First, however, one could raise some issues concerning the relation between the historical account we have provided and the talk and action documented in the analyzed recording. In the preceding text we, as analysts, have read history into the project presented by the students. In doing this, we have pointed towards several intertextual connections between different architectural works and between architecture and historical events. Although both critics and students would probably recognize most of the content of the story, they would not reproduce this particular version of it if they had been asked to. Our account is but one of several possible ways of reassembling what previously has been written and said about the congress hall and the addition.

While the historical background is important for the presentation and critique, it is also taken for granted by participants, and the historical details are not what primarily comes to be at stake in the session; the question is not whether the students understand the history incorrectly or differently. Rather, what is picked up by the critics is the way that the students use these references in their work; by referring to Domenig and Daniel Liebeskind – an architect working within a tradition similar to that of Domenig – the students present a design concept, and a proposed space, in which the redesign and addition to the parish house will take the form of "cutting in and adding". They claim that they thereby create an "exciting" expression, whilst simultaneously being, as Tim formulates it, "respectful to the old building". The question raised by the critic is whether this is a relevant understanding of what they have achieved.

Excerpt 2 is taken from the beginning of the second critic's (Catrin) response to the students' project. Catrin turns almost immediately to commenting on the students' uses of references, formulating her initial reaction to the students' project as one of surprise at the unexpected reference to Speer. While the students made no elaborations in their presentation about the sociopolitical and affective charge of a name such as Speer's, it is delivered here as recognizably problematic. It is also produced as a laughable matter, through line 05 ending in a visible smile, which is picked up by the student Tim, who chuckles briefly (line 06). Line 05 ends with a tone of continuation, leaving out a projected completion of the phrase "ett sånt här" (roughly "one of these"), presumably referring to the fact that the proposed design is an addition to a small parish house in a semi-rural area of Sweden. The contrastive and unexpected in this story of the critic's encounter with Speer's name is thereby reinforced.

Thus far, the criticism of the reference to Speer is formulated merely as something unexpected. After the short laughter in line 06, Catrin continues the argument by specifying her reading of Domenig's work. Gesturally elaborating an image of a

01. Cat: what I thought when I (.7) e::h got this vad jag tänkte när jag (.7) e::h fick det här 02. project the first time to me projektet första gången till mig REN. 03. it was that I:: (.) had never expected det var att ja:: (.) hade aldrig förväntat mig 04. to find references to Speer (.) att hitta referenser till **Speer** (.) 05. in one e::h of these, ((smiles)) Note: gesture is held for the duration of lines 02-05 with beats repeated at "aldrig" and "Speer". i ett e::h sånt här. 06. Tim: ((laughs)) 07. Cat: and I can ju:: *hh. imagine that that, och jaa kan ju:: *hh. tänka mia att att, 08. (.5) the reason for this is ju (.5) anledningen till det här de e ju 09. a little bit like Note: circular hand motion lite aranna som att pierceing a hole in an abscess 10. sticka hål på en varböld Note: quick movement between images, during "in an" 11. and here there will come out something och här ska det komma ut nånting

Note: image shows apex of gesture (at "ut")

coming in from top left

detail from the Documentation Centre – a jagged glass-and-steel structure jutting out from the wall of the congress hall – she says: "the reason for this is a little bit like piercing a hole in an abscess, and here there will come out something". In close coordination with the talk accompanying this formulation, three consecutive gestures are produced: first, a circular hand motion indicates the focus of the talk as one of the images on the poster; second, a detail in the image is picked out by way of a motion of index and middle finger, simultaneously outlining the shape of the detail and enacting a "piercing" movement; third, a forceful indication of the outwards movement of "something", presumably the pus in the metaphoric abscess of the megalomaniacal Nazi architecture (Sw. "varböld" is a conjunction of the words pus and abscess). She thus formulates a rationale for Domenig's addition, by describing and gesturally enacting what the architectural element is doing to the building. This intricate sequence of embodied and discursive action, lodged within a graphical field, achieves its evident sense precisely through the interweaving of talk, gesture, and poster. The compact character of the formulation is made possible by its

EXCERPT 2

12. Tim: m::

m::

indexical relation to additional elaborating features of the communicative action in which it features (cf. Goodwin 2000; Mondada 2006).

Although the critic begins the characterization by introducing it as her interpretation – "and I can (ju) imagine" (line 07) – the Swedish modal particle "ju" (which is somewhat similar to the German "doch") is here used as an epistemic marker, constructing the proposed interpretation as something already known or obvious. One can also note that she refers to "the reason" in the singular, thereby implying that the range of reasons that could be ascribed to the architectural solution is restricted. In the previously quoted passage from Kugel (2002), Domenig's tactics were described as "unequivocally and admirably confrontational", and Domenig himself used a symbolic language similar to Catrin in describing his wish to drive a spear through Albert Speer (Erlanger 2001). Thus, at the point where this group of students finds and takes inspiration from the documentation center, it is already steeped in disciplinary interpretations. As noted by Coulter, following the work of Wittgenstein: "What people may actually say is, of course, up to them. But what they then can mean by whatever they say (if anything) is not solely up to them to say" (Coulter 1999, 167). Similarly, the students can of course find inspiration from various sources, and use these sources for different purposes, but what these sources mean, in the context of an architectural proposal, is not solely up to them to say.

The students note versions of these interpretations in the written material they present: the design is described as an "ideological statement", and as a "spear of glass". In a sense, the students are already somewhat familiar with the conventional understandings of Domenig's work. This textbook knowledge, however, is not what is at issue. In the session, this whole complex topic is dealt with in one sentence: "the reason for this is a little bit like piercing a hole in an abscess, and here there will come out something" (lines 08–11). Rather what is at issue are the practical implications of this knowledge for the interpretation and reading of this particular project. In the following episodes, it is further highlighted that there are lessons to be learned here, connected to relevant methods of borrowing forms and referring to others' work. Intertextuality crucially emerges as a participant's concern, and as a matter of learning and instruction.

The beginning of Excerpt 3 (next page) delivers a conclusion of the preceding sequence, where the meaning of Domenig's work was established; using "that concept in this context" feels "very alien". Then, Catrin elaborates on what she takes the students to be doing: they use a design move (*grepp*/grip) from another project with a specific "philosophy", which is "deeply rooted" in what that particular project wanted to "achieve"; they translate this move; and they apply it in order to achieve not a political statement, but an "architectural expression".

Catrin's words, gestures, and ways of selectively emphasizing the talk produce a strong contrast between "philosophy" and "architectural expression". The issue being highlighted is that the students have extracted the purely formal and aesthetic qualities of their inspirational image without sufficient regard for its deep-rootedness in a sociopolitical context.

Talk of taking a concept, achieving architectural expressions, and translating ideas and visions, speaks to understandings of work practices of architects rather than to interpretations of architecture as built structures. Thus, with her disciplinary reading of Domenig's addition in place, Catrin turns her attention from the details of images and buildings to the realm of design processes. The work practices being highlighted here, one might also note, all revolve around issues that could be glossed as connected to familiar understandings of intertextuality. Catrin articulates some very palpable ways in which architectural proposals are built as "mosaics of quotations". With Bakhtin, this can be said to connect with the problems involved in these quoted features being "shot through with intentions" (1981, 293), and thus not neutral and freely adaptable to the individual's usage.

EXCERPT 3

	Note: hand circles plan
13. Cat:	to use that concept in this context I think feels å använda det konceptet i det här sammanhanget tycker jag känns
14.	very alien väldigt främmande
15. Tim:	(.5) m:: (.5) m::
16. Cat:	so this to, if one uses a move that så det här att, använder man ett grepp som
17.	has another philosophy (.4) in order to har en annan filosofi (.4) i syfte att
18.	achieve an architectural expression (.4) åstadkomma en arkitektonisk gestaltning (.4)
19.	it's maybe an over interpretation [] de e kanske en övertolkning []
20.	but this thing to think that one can take an men det här att tro att man kan ta en
21.	(.6) other's idea and vision and something that lies rather deeply (.6) <i>annans idé och vision och nånting som ligger ganska djupt</i>
22.	rooted in what one wants achieve and translate, that I don't belive rotat i vad man vill åstadkomma och översätta, det tror jag inte
23.	in really, rather one must find one's own thing riktigt på, utan man måste hitta det egna

Concluding by saying that she does not believe in this way of working, and that "one must find one's own thing", Catrin then, in Excerpt 4, moves on to a further elaboration of the issue. She picks up on and expands the issue of "over-interpretation", hinted at in the previous excerpt (line 19).

Formulated as consequence of the previous talk ("because then", line 24), Catrin spells out a consequence of the students' way of importing this particular piece of architecture into their work: that there is a risk of her starting to "over-interpret", reading-in the same kind of deconstruction in the sense of intentional disruption and destruction as communicated by Domenig's addition. In a sense, the structure of the talk resembles that of reported speech (Volosinov 1986) – the embedding within talk of quotations or formal elements of someone else's utterances. Formally, this "someone else" is the critic herself, but treated in a distanced manner. In the production of these possible over-interpretations, Catrin shifts her stance towards the talk into a reporting or enacting mode; she says she "can start making over-interpretations", then produces the projected reading.

The "aha::" of line 24 enacts an initial coming to think of, or realizing, what the students' intentions are – interpretation as it is happening – which clearly breaks from the surrounding talk. That is, it is a change of state token (Heritage 1984), which is specifically designed to be heard in a non-literal way; it is a hypothetical change of state, a possible one. Note further that the talk from "aha" on line 24

EXCERPT 4

- 24. Cat: because then I can start making overinterpretations- aha:: there's för då kan ju jag börja göra övertolkningar- aha:: de e
- 25. something you want to punch a hole on in the (.3) existing *nånting ni vill slå hål på i den (.3) befintliga*
- 26.church's (.2) way of seeing
kyrkans (.2) sätt åit likemakeslitsinand so onkyrkans (.2) sätt åse påde liksomgöraslitsarinoch så



27. that will be my (.1) overinterpretation of it then *det blir ju min (.1) övertolkning av de då*

Note: images show parts of stabbing gestures, with their apexes at highlighted words ("se," "göra," and "in").

through "and so on" on line 26 is fitted between two formulations (lines 24 and 27) of the talk and actions in these lines as over-interpretations.

The enacted over-interpretation is furthermore done by way of a vivid sequence of gestures that take up the shapes of the "LiebesCuts" representing the students' stated design concept (see Excerpt 1). Here, however, these same design moves have been reinterpreted in the light of the new frame put in place by the critic, and as potentially signaling an intention to "punch holes in the church's way of seeing it". The enactments of the cuts are done as forceful stabs. Tim's presentation of the concept, in contrast, was lacking of any gestural elaboration whatsoever. Rather than the respectful "cutting in and adding" communicated in the presentation – surgical incisions mindful of the integrity of the organism as it were – it is suggested that the translation of Domenig's work implies a more violent treatment of the parish house.

As we see in Excerpt 4, the critic relates to her work of interpretation in intricate ways; she performs interpretation, whilst simultaneously distancing herself from it. What she is highlighting is the range of possible interpretations the students' project invites, for a reader who does not know, or can infer, the role Domenig's work had in the design process. Some further complication to this matter is introduced in Excerpt 5.

EXCERPT 5

- 28. Cat: then it's of course a within-disciplinary reference- (.2) framework you're sen e de ju naturligtvis en inomprofessionell referens- (.2) apparat ni
- 29. using and clearly the people in the church council won't understand the *använder å de e klart att dom i kyrkorådet inte förstår*
- 30. connection to Speer and Liebeskind and all that there (.3) in that way kopplingen med Speer a::: Liebeskind a allt de där (.3) på det sättet
- 31.Tim: no=
- 32. Cat: =that we can over interpret it and use it as one version (.3) but then =som vi kan övertolka de å använda det som en version (.3) men då
- 33. one must be somewhat aware of what signals one sends out and what *får man va lite varse med vilka signals man sänder ut och vilka objekt*
- 34. objects one chooses so that it doesn't sting the eyes unecessarily objekt man väljer ut så att det inte sticker i ögonen i onödan

[...]

- 35. but it can be one part in in (.) the school assignment and in the learning men de kan ju va en del i i (.) skoluppgiften å i lär-
- 36. situation to learn ta- how does one take influences what can one situationen att lära sig ta- hur tar man influenser vad kan man
- 37. translate what **bears** translation and what is appropriate översätta vad **tål** översättas och vad är lämpligt

This excerpt occurs a few minutes later in the critique session, after some discussion amongst the students and critics about details in the design, and the different inspirational images used. The issue of possible interpreters is elaborated with reference to the members of the church council who are the "clients" in the students' project. The relevant competences in handling intertextual references that the critic has just brought to bear on the project are provided with a specification with regard to their uneven distribution among different categories of interpreters. In a sense, it is a hedge of the critique, acknowledging that the clients probably will not share the body of knowledge – specifically the significance of Domenig's addition in relation to the history of the congress hall – required for making the suggested overinterpretations in the first place. Nevertheless, it is concluded that the issue of what signals the chosen images send out is an important consideration. Later in the session, it is noted that the reference to Speer in itself might be problematic, perhaps especially so if the reader does not know whom Domenig was, or does not recognize his critical intentions. The last lines of Excerpt 5 provide a kind of summary and formulation of the instructional work of the episode; it is part of the educational situation to learn how to take and use references to extant work.

Concluding remarks

In the following, we briefly discuss three interrelated themes: first, intertextuality and interpretation as respecified from the standpoint of design review practice; second, the interweaving of built environments and disciplinary discourse in the graphical and embodied space of the critique session; and third, the forms of instructional work evidenced in the analyzed episode.

The logic of respecification has turned the theoretical concepts of intertextuality and interpretation into a participant's concern. When the recorded interactions are thusly seen with an eye to explicating the work of critique, a reflexive orientation to interpretation and intertextual connections can be discerned. This orientation is related in an interesting way to the professional practice of intertextual analysis; the participants orient to the presence of lay and professional intertextual analysis "out there" as a practical concern, relevant for the ways in which the critics are to assess student designs, and, by implication, for how design is to be done so as to take interpretative practice into account. It is treated as a matter of fact that people will interpret and analyze one's work. This, in turn, necessitates a concern with "what signals you send out".

Throughout the episodes, one can see phenomena pertaining to notions of author, intention, and interpretation being treated by participants. In their work, "the death of the author" takes on a very different significance than it does in the practice of after-the-fact interpretation of texts. It is in a sense treated not as an ontological position with regards to the interpretation of texts, but as a practical matter of fact that has to be taken into account. Given that the students' proposal is designed to be communicated and read, the issue arises of what possible interpretations the presentation invites. If the reader's interpretation differs from what the students intended, their intentions are only of limited relevance for the practical success of the proposal. However, this relative irrelevance is not treated as implying a resignation from any effort at shaping the meaning-as-read. On the contrary, the issue is precisely this: how to work with images and references to exert some measure of control over the reception of the project. This points to an inclusion of interpretation (and over-interpretation) within the realm of the empirical circumstances and considerations for which the work of design is accountable. Interpretation is in a sense placed among factors such as structural integrity, aesthetics, economics, and coherence, as part of the problem space in which architectural work navigates. Design anticipates professional interpretation, and is thus prospectively oriented towards the retrospective ascription of intertextual relations and meanings.

Another marked difference between the professional interpretation of text and the work of critique is the ways in which a number of distinct spaces are juxtaposed in the latter. Via the incorporation into the project of Domenig's work, the congress hall, along with its inferentially rich history, is placed side by side with the students' suggested addition to the parish house. Their suggestion is, in a sense, that what Domenig's addition does to the congress hall, so does the student project to the parish house. To understand the former gesture, however, its discursive context must be understood – what it does is tied to what it is a response to, and so the logic of the Nazi architecture becomes a relevant contextual feature of the design. Domenig targeted Speer's own intertextual work, in particular the attempts at imparting to the hall a sense of continuity with the great empires of the past. In explicitly disrupting the elements that were to provide for this continuity and permanence, Domenig's work is a material statement, an artifact that is discursive as much as it is visual and spatial. Architectural work, particularly in the case of additions and modifications, can thus be conceived as a form of spatial semiosis, concerned with *reading* and writing:

The transformation of an existing building is a procedure that initially consists of reading the place. This is a course of action that involves the study of structural and physical elements and also the analysis of concealed matter such as memories, values, narratives and traditions. The reading of the host ensures that site-specific conditions can be exposed and then used as potential generators of ideas for the modification process. (Brooker 2006, 1-2)

This implies that the resultant structures will be meaningful semiotic spaces, at least for those with the required historical and disciplinary knowledge with which to read them. Importing a material form thus involves importing certain meanings with which those forms, and the spaces from which they have been recruited, are imbued. While the parish house and the congress hall/documentation center are actual places with a reality independent of the events taking place in the design review, the latter occurs in a space of inscription, representation, and embodied action. The twodimensional board of posters, and the ways in which phenomena are discursively worked up as visible in them, is the only reality that the project can lay claim to, in these interactions. Nevertheless, the graphical surfaces allow the suggested architecture to be assessed and scrutinized; the poster is an "architecture for perception" (Goodwin 1994), attuned to the discursive and visual practices of skilled architectural reasoning. The posters are furthermore treated as communicative artifacts, which "send signals" to envisaged interpreters. As a "space of multimodal discourse" the design review is richly textured with embedded contexts (Goodwin 2003), and becomes additionally layered through the embodied, gestural work of the critic. The space in which the critique occurs is thus not merely a metric space, a physical locale, but a specific *siting* (Shapin 1988) of architectural knowledge reproduction.

Finally, one can note that throughout the event, the issues we have analyzed through the notions of intertextuality and interpretation are made relevant as part of a sequence of instructional work. In relation to this pedagogical function of the critique, it might be worth reflecting on the orders of architectural knowledge and competence that are highlighted here. Architectural history is undeniably relevant for this sequence, in a way that brings to mind Vitruvius' argument for the importance of history in the architect's set of competences. Returning to that argument, however, one might note that Vitruvius does not present the subject matter of history merely as a body of historical facts to be known by the architect. Rather, this knowledge is situated in a communicative context of providing rationales of design decisions "for those who inquire". Similarly, in the analyzed episodes, historical knowledge is made relevant not primarily as an issue of knowing that Domenig's addition, the Kongresshalle, or Speer has this or that disciplinary significance. The students seem to be aware of the status of the documentation center in Nuremberg as an "ideological statement". They also state that "the historical context of the building must be taken into consideration". Their factual knowledge of the relevant disciplinary history, as well as the fact of its relevance, seems unproblematic. Furthermore, the critic does not dwell upon these issues – say, by providing an expansion on Domenig and Speer – but treats the topic by way of a very compact formulation, delivered as something already shared and known. What is instead focused on is how these matters of fact should be treated as having bearing on the particular case of these students' proposed addition. In the critic's own succinct formulation: "how does one take influences, what can be translated, what bears translation, and what is appropriate". As a practical matter of instruction, a host of architectural issues pertaining to this "how" – the use of references, the possibility of unintended readings, and so on – are thematized by way of procedural and embodied enactments of envisaged interpretation. These enactments, in turn, are tied for their sensible character to the layered spaces in which the critique occurs – the spatiotemporal arrangements or "installations" (Macbeth 2000) juxtaposing student-produced objects with the architectural vision of the critic. In such a setting, specific conditions for the production and re-production of knowledge arise, allowing, amongst other things, the reasoned treatment of some central competences for managing intertextual work.

Acknowledgements

The Swedish Research Council has financially supported the research reported here. The work has been carried out within the LinCS center of excellence at the University of Gothenburg, Sweden. The Network for Analysis of Interaction and Learning has been an invaluable intellectual resource, as well as the PlaceME network organized by Paul McIlvenny. The authors would like to thank Fritjof Sahlström, Ference Marton, and Roger Säljö for their careful readings of previous versions of the text. Finally, they want to acknowledge the incisive input provided by the editors and the reviewers. The responsibility for any remaining errors is, of course, the authors' own.

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References

- Anderson, R.J., and W. Sharrock. 1984. Analytic work: Aspects of the organisation of conversational data. *Journal for the Theory of Social Behaviour* 14, no. 1: 103–24.
- Bakhtin, M.M. 1981. *The dialogic imagination: Four essays by M.M. Bachtin.* Austin, TX: University of Texas Press.
- Barthes, R. 1977. Image, music, text. London: Fontana.
- Brockmann, S. 2006. Nuremberg: The imaginary capital. Rochester, NY: Camden House.
- Brooker, G. 2006. Infected interiors: Remodelling contaminated buildings. *IDEA Journal* 7: 1–13.
- Coombs, T. 1992. Scarpa's Castelvecchio: A critical rehabilitation. Places 8, no. 1: 4-7.
- Coulter, J. 1989. Mind in action. Oxford, UK: Polity Press.
- Coulter, J. 1999. Discourse and mind. Human Studies 22, nos. 2-4: 163-81.
- Egan-Robertson, A. 1998. Learning about culture, language, and power: Understanding relationships among personhood, literacy practices, and intertextuality. *Journal of Literacy Research* 30, no. 4: 449–87.
- Erlanger, S. 2001. Nuremberg journal: The architect who speared his own Nazi demon. *The New York Times.* http://www.nytimes.com/2001/11/08/world/nuremberg-journal-the-architect-who-speared-his-own-nazi demon.html?scp = 1&sq = erlanger%20speer&st = cse.
- Fairclough, N. 1994. Discourse and social change. Cambridge, UK: Polity Press.
- Gee, J.P., and J.L. Green. 1998. Discourse analysis, learning, and social practice: A methodological study. *Review of Research in Education* 23, no. 1: 119–69.
- Goodwin, C. 1994. Professional vision. American Anthropologist 96, no. 3: 606-33.
- Goodwin, C. 2000. Action and embodiment within situated human interaction. *Journal of Pragmatics* 32, no. 10: 1489–522.
- Goodwin, C. 2003. Embedded context. *Research on Language and Social Interaction* 36, no. 4: 323–50.
- Heath, C. 2004. Analysing face-to-face interaction: Video, the visual and material. In *Qualitative research: Theory, method and practice*, ed. D. Silverman, 266–82. London: Sage.
- Heritage, J. 1984. A change-of-state token and aspects of its sequential placement. In *Structures of social action: Studies in conversation analysis*, ed. J.M. Atkinson and J. Heritage, 299–345. Cambridge, UK: Cambridge University Press.
- Hutchby, I., and R. Wooffitt. 1998. Conversation analysis: Principles, practices and applications. Cambridge, UK: Polity Press.

Irwin, W. 2004. Against intertextuality. Philosophy and Literature 28, no. 2: 227-42.

- James-Chakraborty, K. 2000. German architecture for a mass audience. London: Routledge.
- Jaskot, P.B. 2000. *The architecture of oppression. The SS, forced labor and the Nazi monumental building economy.* London: Routledge.
- Jefferson, G. 1984. Transcription notation. In *Structures of social action: Studies in conversation analysis*, ed. J. Maxwell and J. Heritage, 9–16. Cambridge, UK: Cambridge University Press.
- Kristeva, J. 1980. *Desire in language: A semiotic approach to literature and art.* New York: Columbia University Press.
- Kugel, C. 2002. Letting in the light: Günther Domenig sensitively breathes light and life back into the Nuremberg Kongresshalle, a relic of Nazi history. *The Architectural Review*. http://www.thefreelibrary.com/Letting%20in%20the%20light:%20Gunther%20Domenig %20sensitively%20breathes%20light%20and...-a093232124.
- Lynch, M. 1991. Pictures of nothing? Visual construals in social theory. *Sociological Theory* 9, no. 1: 1–21.
- Lynch, M., and D. Bogen. 1996. The spectacle of history: Speech, text and context in the Iran-Contra hearings. Durham, NC: Duke University Press.
- Macbeth, D. 1990. Classroom order as practical action: The making and un-making of a quiet reproach. *British Journal of Sociology of Education* 11, no. 2: 189–214.
- Macbeth, D. 2000. Classrooms as installations. In Local educational order: Ethnomethodological studies of knowledge in action, ed. S. Hester and D. Francis, 21–69. Amsterdam: John Benjamins Publishing.
- McIlvenny, P. 2008. A home away from home: Mediating parentcraft and domestic space in a reality TV parenting program. *Home Cultures* 5, no. 2: 141–66.
- Mondada, L. 2006. Participants' online analysis and multimodal practices: Projecting the end of the turn and the closing of the sequence. *Discourse Studies* 8, no. 1: 117–29.
- Sacks, H. 1992. Lectures on conversation Vol. 1. Oxford, UK: Blackwell.
- Schegloff, E.A. 1987. Analyzing single episodes of interaction: An exercise in conversation analysis. *Social Psychology Quarterly* 50, no. 2: 101–14.
- Shapin, S. 1988. The house of experiment in seventeenth-century England. Isis 79, no. 3: 373-404.
- Speer, A. 1941. Neue Deutsche Baukunst. Berlin: Volk und Reich Verlag.
- Thibault, P.J. 1991. Social semiotics as practice. Minneapolis, MN: University of Minnesota Presss.
- Vitruvius. 1999. Book 1: First principles and the layout of cities. In *Vitruvius: Ten books on architecture*, ed. I.D. Rowland and T.N. Howe, 21–32. Cambridge, UK: Cambridge University Press.
- Volosinov, V.N. 1986. *Marxism and the philosophy of language*. Cambridge, MA: Harvard University Press.