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Rosario Caballero

RE-VIEWING SPACE

APPLICATIONS OF COGNITIVE LINGUISTICS [ACL]

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Re-Viewing Space

Applications of Cognitive Linguistics
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Mouton de Gruyter
Berlin · New York

Re-Viewing Space

Figurative Language in Architects' Assessment of Built Space

by

Rosario Caballero

Mouton de Gruyter
Berlin · New York

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For José Vicente and Fiona

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This book is based on research done for my PhD dissertation *Cognition and shared cultural models. The role of metaphor in the discourse of architects*. In the four years that have passed, the views of architectural metaphors sustained there have changed considerably. As a result, this book offers a better and, I hope, more accurate description of how and why architects – or, as I refer to them, *architecti verborum* – use metaphor for commenting on their practice in building reviews.

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Chapter 1
What this book says about metaphor, architects, and the assessment of building design

1. Introduction

In his essay "An account of architects and architecture" introducing *A Parallel of the Ancient Architecture with the Modern* (the 1664 English translation of a book written in French by Roland Fréart), John Evelyn distinguished between four kinds of architect. The first of these, concerned with designing buildings, was *architectus ingenio*. The *architectus sumptuarius* was responsible for providing the financial means for their construction. The type referred to as *architectus manuarius* comprised the artisans and workers involved in the actual making of buildings. Last, but not least, the *architectus verborum* was skilled in the art of language and, therefore, was in charge of talking about buildings after their erection. This typology has, of course, become obsolete: architects neither sustain their own projects economically, nor are concerned with the manual side of building. However, by placing the task of *architectus verborum* on the same level of all other aspects involved in architectural practice, Evelyn's classification remains useful in drawing attention to the importance of post-construction assessment in the discipline. It also suggests that, although architects may be seen as people who express themselves better through spatial artifacts than through words, the *ingenio* and *verborum* facets are, in fact, the two sides of the same coin.

This book explores the language and, more specifically, the figurative language used by *architectus verborum* for assessing the work of his/her peers in the building review, a genre that illustrates the evaluative textual practices of architects and is, indeed, the prototypical context where their *verborum* facet reveals itself. This programmatic statement raises two questions. The first and most obvious is, of all the devices that may contribute to describing and evaluating buildings, why focus principally on metaphorical language? The second question is, why choose a single genre for exploring metaphor in architectural discourse?

The answer to the first question is fairly simple: because architectural discourse is highly figurative, and the saliency of this characteristic makes

it worthy of note. The following examples may give an idea of how metaphors pervade architects' linguistic interaction:

(1) The worst part is to remove the paunch in this wall (oral interaction, author's data)[1]

(2) The quality of the material, its surface structure and line patterns can only be appreciated at close range. Such intricate examination [of masonry walls] reveals pores, veins, folds and minute hairs, just like the human skin ... The structure of the masonry is as close to my skin as the weave of my vest. (Krier 1988: 28)

(3) A building protects itself from water by wearing three garments. A vapor barrier lining creates a rain-coat around all extremities and appendages of the space, a rubberlike membrane provides a boot around the foot of the structure, and a variety of materials are stitched together to make an umbrella of protection around the top. Whether these garment-like layers begin as small units or as sheeting materials, their end results must take the form of homogenous coatings. (Centuori 1999: 2)

(4) Moneo claims to have created a building "content in its role as spectator, without seeking the status of protagonist held by the cathedral and the palace." The building may have been cast as a supporting player in the urban drama of its surroundings, but it has strong character and authority. ... Within a single flat plane, Moneo's civic annex becomes as affected and self-conscious as the baroque cathedral – but never relinquishes its sense of order and rationality. ... Although Moneo wanted his addition to defer to its historic setting, it's not as reverent as he claims. The building makes a clever game of playing order against disorder to assert its own identity among its ornamented neighbors. (Church and State, *Architecture*, October 1999)

In these passages, buildings and building elements are portrayed as living or textile entities by using language more commonly associated with fields other than architecture like, for instance, anatomy and textiles. In other words, the examples illustrate that architects often draw upon activities and objects other than their own for commenting upon their work.

This is precisely what metaphor is about: a transfer of meaning between two disparate domains – the term metaphor being etymologically related to the Greek term *metapherein* roughly meaning 'transfer', 'carrying over'. By means of this transfer or *mapping*, as the process is referred to in cogni-

tive research after Lakoff and Johnson's influential book *Metaphors We Live by* (1980), some concepts, activities or things are figuratively understood in terms of other concepts, activities and things which, although apparently very different, lend some of their internal logic in the process. In verbal interaction, such metaphorical mappings may be expressed or realized by linguistic units of various sorts and ranks, all of which point to the figurative quality of a large amount of our understanding of the world.

Indeed, an approach to architectural texts in terms of conceptual metaphors involves regarding metaphorical language as symptomatic of particular and systematic ways of thinking rather than being a decorative device for stylistic purposes only. In this regard, I fully embrace the definition of metaphor as an essential cognitive tool helping us to conceptualize the world, as sustained by the Lakoffian trend of metaphor research postulated in Lakoff and Johnson (1980, 1999), Johnson (1987), Lakoff (1987a), Lakoff and Turner (1989), and Gibbs (1994) among others. Looking at the figurative language used by architects will thus allow us to discover some of the metaphorical models or schemas helping them in their intellectual or *ingenio* facet. It will, for instance, reveal a community characterized by what some design scholars call *visual thinking*, as attested by the critical role played by the visually biased figurative language abundantly found in architectural texts. In this regard, one of the aims of this book is to underline the important role of visual or *image* metaphors in architectural thinking and communication versus prevailing views on them as fleeting cases of metaphor, prototypical of literary or advertising discourse, and neither productive nor conventional in the way that metaphors conveying abstract, conceptual knowledge are. In fact, architectural discourse appears to be one of those contexts where the proverbial unconventionality of image metaphors may be questioned, as this book will attempt to demonstrate.

However, the ideational dimension of figurative language is not only an intrinsic aspect of approaching metaphor from a cognitive perspective. Rather, understanding the contribution of metaphor to architects' thinking is also the inevitable consequence of approaching metaphor from a discourse perspective, a task that involves examining the figurative language found in real discourse contexts, the uses to which this may be put, the factors determining such uses, and, of course, the topics or ideas thus expressed. A discourse approach to metaphor in architecture, then, entails paying attention to the *what, how, when* and *what for* aspects involved, a research agenda that may be formulated in the following questions:

- Which are the metaphors that architects use most for discussing architectural design?
- What are they like and where do they come from?
- Why do architects use these metaphors and not others?
- How are they used?
- Do such metaphors illustrate a conventional way of thinking and talking about built space or, rather, are they ad-hoc devices exploited for particular purposes?
- Which are the purposes underlying the use of – ad-hoc or systematic – metaphors?

As one would expect, answering the questions above implies choosing a context that will ensure the validity of our results and, at the same time, be of manageable proportions. In this book it is argued that a particular genre within the discourse repertoire of architects supplies us with such a context while, at the same time, helping the researcher to develop an analytical framework for exploring metaphor in professional communication.

2. A genre approach to metaphor

> Again in examining whether what has been said or done by someone is poetically right or not, we must not look merely to the particular act or saying, and ask whether it is poetically good or bad. We must also consider by whom it is said or done, to whom, when, by what means, or for what end. (Aristotle, *Poetics*. Section 3 Part XXV)[2]

An important achievement of cognitive linguists has been to draw attention to the poetic structure of mind as shown by the pervasiveness of figurative language in all kinds of discourse. Yet, there are still few studies that integrate insights from cognitive theory with discourse analytic procedures in order to provide a comprehensive view on the role of metaphor in communication. In their zeal to replace former notions of metaphor as a deviant and cosmetic use of language, many studies have been mainly concerned with what is conceptualized in terms of something else and how this process takes place at a conceptual level. In turn, the proliferation of definitions and classifications of metaphor available in the literature have, unfortunately, been too often substantiated by piecemeal evidence or illustrated by the figurative data that fits the model under discussion. In short, although common ground to cognitive scholars is that human reasoning is essentially

figurative, the attempts to reestablish the conceptual status of metaphor have, paradoxically, resulted in a diminished interest in its textual dimension – that is, metaphor's actual realization in discourse contexts.

This mismatch between the communicative significance attributed to figurative schemas and the number of metaphor approaches actually adopting a discourse vantage point is, nevertheless, being redressed. This is illustrated by the growing amount of work that focuses on the metaphors of particular discourse communities, and often combines a cognitive approach to figurative phenomena with discourse analysis tools and methods (e.g., Cameron 2003, Charteris-Black 2004, Koller 2004, Musolff 2004, to list some of the most recent publications). The shared assumption is that metaphor needs to be approached from a *situated*, culturally bound perspective – an assumption that, nevertheless, started as one of the claims explicitly voiced in the late 1990s by both cognitive and applied linguists (Chilton 1996; Goatly 1997; Cameron 1999a; Gibbs and Steen 1999).[3] In this regard, many studies have set out to explain how particular communities use metaphor according to their specific rationales (cf. section 3.2. in Chapter 3). For however commonsensical and long standing this research program may actually be (it may, indeed, be traced back to Aristotle), it has too often been forgotten by other approaches claiming to explore metaphor from a discourse perspective, but which nevertheless discuss figurative language in terms of what it would mean if it occurred in a hypothetical and largely aseptic interaction between imaginary people.

The present discussion also starts from the assumption that the cognitive and pragmatic relevance of figurative devices of any sort should be considered within a *situated* framework because this has direct consequences for how people think and communicate through metaphor. Of course, the first question that needs to be clarified is what we mean by situated, since it may cover different – even if related – aspects of metaphor and, therefore, determine the procedures chosen for exploring it. Thus, if situated is understood broadly as 'culturally specific', the growing work on metaphor in professional discourse has largely paved the way for avoiding the aforementioned aseptic framework. If, in contrast, a situated approach is understood as more than the selection of a particular community to explore how certain metaphors articulate its worldview and are used in the communication among its members, analytical procedures need to be clearly established from the very beginning. The first requirement is to choose the discourse situation within which this use will be examined.

The proposal in this book is that genre provides an operative framework for investigating metaphor in discourse, and, particularly, for exploring the presence and role of metaphor in professional communication.[4] In the first place, a given genre within the range of discourse practices of a professional community constitutes a manageable research context, and one that helps researchers delimit the scope of their findings within a particular context or situation – therefore preventing them from making generalizations that might not be valid for other contexts. Furthermore, knowing how the chosen genre works would provide metaphor researchers with default assumptions on the topics, relationship between authors and audiences, rhetorical goals and prototypical textual organization from which his/her research may operate. This knowledge should then help analysts to build up a reasonable set of research hypotheses on the reasons for the use and textual instantiation of metaphor, and frame the results and ensuing discussion within such a culturally situated scenario. For, together with embodying fairly stable types of communicative interaction and yielding recognizable classes of text, genres also imply "particular processes of producing, distributing and consuming texts" (Fairclough 1992: 126), which allows generalizations to be drawn about how metaphorical language may be produced, distributed and consumed in a concomitant way.

Of course, claims that the notion of genre may provide a useful standpoint for approaching metaphor in discourse are far from new: they can be found in the discussion in Crider and Cirillo (1991), Goatly (1997), or Steen (1991, 1999a). However, it might also be the case that this notion would prove more advantageous in certain contexts rather than others. Among the diverse factors shaping genre activity, the type of audience implicit in each genre is particularly important since it may further determine the optimal usability of a genre approach for examining the role of metaphor in every possible discourse context. Take, for example, instances of general discourse like informal chats or TV interviews, literary genres, and advertising. The purposeful and patterned way in which all these activities take place may allow for a systematic approach to the metaphorical expressions that occur. These expressions, however, may very well be more varied and their interpretation more open, given the culturally heterogeneous nature of the participants involved (due to their diverse backgrounds, and hence diverse concerns and expectations when engaging in these genres). In contrast, a particular discourse community sharing professional interests represents a subculture within a much broader cultural frame, characterized by specific knowledge schemas, needs and interests. It seems

reasonable to expect, then, that the ways in which these are articulated through genre will help analysts reconstruct that specific worldview in a more accurate (and, indeed, situated) fashion.

Moreover, a genre perspective not only helps us grasp how a given community understands the world through metaphor, but also allows us to shift focus from *what* is conceptualized in figurative terms towards *why* and *how* this takes place. It therefore provides the means for going beyond the level of lexis (the metaphorical motivation of professional jargon or fixed linguistic chunks of different sorts) to placing the emphasis on how metaphor fulfils various rhetorical needs, and contributes to the unfolding of text in compliance with a set of conventions. This encompassing framework of analysis is ensured by the very nature of genre, defined by Devitt (1993: 580) in the following terms: "Genre is patterns and relationships, essentially semiotic ones, that are constructed when writers and groups of writers identify different writing tasks as being similar. Genre constructs and responds to recurring situations, becoming visible through perceived patterns in the syntactic, semantic, and pragmatic features of particular texts. Genre is truly, therefore, a maker of meaning."

Thus, together with sharing a particular worldview, the members of a discourse (in our case, professional) community also share a particular way of doing things through language when engaging in the genres regulating and articulating their various communicative interactions. Just as participants use their (conscious or unconscious) knowledge of genres when engaging in them, metaphor scholars may use this knowledge for two related research purposes. On the one hand, as pointed out earlier they may build up some hypotheses about the type of metaphorical expressions likely to appear, or about the motivations underlying their presence as specified by the genre's rhetorical goals. On the other, analysts may check those hypotheses, and explain that presence and role in a more situated, informed way. They can therefore discuss the relevance of metaphorical language by relating it to the intentions underlying the author's use of metaphor and the audience's expectations when dealing with the texts (both constrained at a very basic, general level by the genre's rationale).

Another question that needs to be addressed when dealing with metaphor from a situated perspective concerns the way(s) in which researchers can identify the communicative function of metaphorical language in a systematic fashion. Here again genre may prove a workable framework of analysis, for the systematic way in which genre activity takes place usually results in a recognizable and patterned kind of text, comprising both a par-

ticular use of those linguistic resources – metaphor included – best suited for achieving communicative purposes, and a specific way of shaping them into textual form. Nevertheless, of all aspects involved in metaphor, its textual dimension appears to be most commonly overlooked. This neglect is especially noticeable in those cases that attempt to explore the import of figurative language in professional communication, and usually do so by analyzing a large number of texts (i.e., a corpus) which, more often than not, fall into a particular genre within those articulating the discourse of the community at issue. Given that the main assumption in genre research into professional communication is that the textual patterning of generic exemplars is constrained by and reflects ideational (topic) and interpersonal factors (audience and rhetorical goals), it seems odd that the interest in how metaphor fulfils both aspects in specific genres has not also provoked some reflection upon how it actually appears within their rhetorical structure.

In other words, the discourse management function of metaphor needs to be addressed in any research aimed at gaining some insights into its role in human communication. This is a central concern of this book, which describes how architects conceptualize and verbalize their particular experience(s) in the world through metaphor, paying due attention to all other factors that shape a specific instance of their discourse interaction. This requires noting the grammatical form, location, and density of metaphor in texts, relating the way these appear in their rhetorical structure to the specific goals of the participants in the interaction under analysis. This view of metaphor as functionally constrained both at conceptual and discourse levels contrasts with a view of metaphor as an independent mechanism reflecting subjective authorial choices, which would make it unpredictable and textually unconstrained.

In sum, the present work aims to show that genre offers a number of advantages for *applied* research on metaphor. In the first place, it allows the researcher to shift the focus from an idealized speaker to a concrete, albeit prototypical, user belonging to a disciplinary community and, therefore, reflecting a shared way of doing things through metaphor. The social context defined by genre therefore helps us to frame our discussion of the use of figurative language of different sorts in a fairly accurate, predictable, indeed situated way. The comprehensive nature of genre finally permits an exploration of the experiential, interpersonal, and textual functions of metaphor by relating these to a specific communicative situation as predicted by the requirements of the genre's rationale. The present discussion of how figurative language is used in architectural assessment, then, com-

bines theoretical and analytical tools from genre studies (while also drawing insights from related approaches within current trends of discourse analysis) and metaphor theory within cognitive linguistics. Metaphor is described according to how it is used to discuss certain architectural topics in a real communicative situation involving concrete participants, clear rhetorical goals, and recognizable textual artifacts. In this respect, the book aims at bringing together a genre approach to texts and a cognitive approach to metaphor in order to benefit from the insights of both, while, at the same time restoring as the centre of attention the linguistic and textual aspects of metaphor as an instrument of both cognition and communication.

The book is organized in two parts. The first part provides an introduction to architectural discourse (Chapter 2); a survey of research on metaphor, paying special attention to the experientialist trend of research followed in this book (Chapter 3); and a methodological chapter explaining the procedure followed to explore the figurative language used by English-speaking architects/reviewers in the genre chosen for analysis (Chapter 4). In the second part of the book we will see how architects use metaphorical language for assessing design solutions in building reviews, starting from an introduction of the metaphorical schemas articulating their worldview (Chapter 5), followed by a description of how these are linguistically realized in patterns of diverse sorts (Chapter 6), and a discussion of the role of metaphorical language in the texts in the corpus as determined by their generic ascription (Chapter 7). Chapter 8 provides a brief summary of the aspects of metaphor dwelt on in the previous chapters.

Chapter 2
Architectus Verborum. An introduction to architectural discourse

> Architects, like many other professionals, make use of linguistic resources developed over time for the purpose of reflecting, in speech and writing, on the phenomena which are their distinctive concerns. ... Professional registers are often criticized as mystifying jargon whose main purpose is to exclude outsiders; but while that may indeed be one of their functions, they also allow a professional community's accumulated knowledge to be codified and transmitted in precise detail. In architecture as in medicine or law, 'learning the language' is inseparable from mastering the craft as a whole. (Markus and Cameron 2002: 2-3)

"Build – don't talk," a dictum attributed to Mies van der Rohe, encapsulates the main concern of architecture in the first half of the twentieth century, and also represents popular views of the discipline as a non-verbal affair. However, although buildings may be the medium through which architects (*architecti ingenio*) best express themselves, their work cannot be understood without the texts written both within and outside the realm of architecture. In the first place, more than one architect and scholar interested in the field has proved particularly productive in his/her written reflections on architectural design. This is illustrated by the prolific output of *architectus verborum*, both in the past and in the present. In the second place, the writings from disciplines such as philosophy, linguistics, sociology, or biology have had a considerable impact on contemporary architectural aesthetics. Moreover, as is well known, the architectural canon includes some seminal buildings that no longer exist as three-dimensional, actually built artifacts. A notable example is the Barcelona Pavilion. Designed by Mies van der Rohe in 1929 for the World Exposition at Barcelona, it only lasted in extant form for six months before disappearing on its return journey to Germany. Therefore, its status as one of the masterpieces of modern architecture rests solely on the many written and pictorial accounts of the building.

Among the texts written by and about architects and their work can be found a broad array of types (i.e., genres) that may be crudely divided into two groups. On the one hand, there exist theoretical texts in classical and

more updated versions, such as Vitruvius's *De Architectura*, or the construction and design manuals studied in modern polytechnics. On the other, there are the more applied or practical texts like design programs, technical reports, or building reviews, among others. These texts differ in their rhetorical purpose(s), in their intended audience(s), and, hence, in their textual organization. Nevertheless, these distinct genres share a number of traits that reflect the idiosyncrasy of the practice they help articulate. This is so whether their acknowledged aim is to furnish real or prospective architects with theoretical foundations and practical guidelines or whether they are concerned with critically assessing design practices.

One of these traits is that, in general, architectural texts are complex, modally heterogeneous artifacts aimed at a multi-literate audience trained to *read* both images and words. This combination of graphic and verbal representations has attracted a great deal of attention by scholars interested in the interaction between the visual and verbal modes in architectural communication (Ackerman and Oates 1996; Medway 1996, 2000; Forty 2000; Markus and Cameron 2002).

Imagery in architectural texts is, furthermore, not simply a property of graphic representation but also of the language used. For, as pointed out in the introduction to this book, figurative language is another outstanding characteristic of architectural discourse. Consider, for instance, professional terminology such as *bowels*, *cladding* or *skin*, which, as happens with many other terms conventionally used for referring to diverse parts of buildings, are unmistakably metaphorical. If, as linguists claim, professional vocabulary reflects how a given community of practice codes reality (Halliday and Martin 1993; Markus and Cameron 2002), then the figurative quality of a large amount of architectural jargon suggests that metaphor plays an important role in architects' thinking.

Indeed, metaphor has not only been an important heuristic tool at different stages of theory formation (Collins 1970; Forty 2000), but also plays an important role in the process of thinking a building, as has been stressed by scholars dealing with architectural design (Lawson and Ming Loke 1997; Casakin and Goldschmidt 1999; Medway and Clark 2003). They have drawn attention to the contribution of metaphor as a first-order design resource, one that is particularly useful in mediating the first, most creative and personal stage of design, as well as the successive reworkings of the preliminary design sketches.

Finally, a particularly important characteristic of much architectural discourse is its evaluative stance. The task of *architectus ingenio* suggests a

compromise between art and craft, personal inclinations, choices and interpretations of spatial form, as well as disciplinary conventions and social, functional, and technical requirements. Likewise, many genres and, specifically, those concerned with design assessment (the main activity of *architectus verborum*) reveal a tension between informativeness and interpretation that finds expression in the same visual-plus-verbal mixture and figurative means involved in the design process. A look at post-construction genres reveals the difficulties of distinguishing between objective descriptions of buildings and subjective views, an issue discussed in detail in Chapter 7.

This brief characterization of architectural discourse is fully explored in the following sections.

1. Rendering space: The multimodal quality of architectural texts

> I have no need whatsoever to draw my designs. Good architecture, how something is to be built, can be written. One can write the Parthenon. (Loos 1924: 139)

Not surprisingly, visual representations of spatial arrangements are crucial components of contemporary architectural texts, given the graphic nature of a large amount of architects' work. A design project usually starts with architects *translating* the wishes of their clients into drawn form by means of sketches which may be reworked as new ideas and requirements are discussed in the meeting(s) prior to signing a contract. These preliminary drawings are then successively elaborated after further discussion with both clients and the members of the architectural team. The ultimate version finally comprises a number of plans and, sometimes, three-dimensional models, the former supplying builders with construction guidelines. Should the building prove noteworthy, the photographs later published in magazines devoted to architectural design exemplify another type of visual representation.

As suggested by this schematic characterization of the design process, visuals in architecture comprise graphic representations of diverse sorts. They nevertheless may be explained as falling into two broad categories. First, we have discipline-specific images like sketches, scale drawings, diagrams, or perspectives. These can be freehand or computer generated, and may involve flat projections of built artifacts (plans, sections, or eleva-

tions) or may attempt to capture the three dimensions of spatial volumes (isometric and axonometric projections).[5] Such images are a sophisticated coding system whereby architects represent space in a highly schematic way, and are a characteristic component of the most technical genres in the discipline (e.g. technical reports and construction projects). These visuals are also the best exponents of architects' idiosyncratic "orientation toward the world, a work-relevant way of seeing ... embedded within webs of socially organized, situated practices" (Goodwin 2001: 169). Moreover, pictorial devices of this kind not only capture the physical properties of built artifacts (that is, what they look or will look like, even if in a highly schematic form), but also, and most importantly, articulate the complex knowledge structure involved in their design (Larkin and Simon 1987; Tversky 1995; Suwa and Tversky 1997). The second broad type of visuals consists of photographs showing buildings in varying degrees of detail. Instead of schematically decomposing spatial artifacts into their underlying structural systems, these (non-specific) graphic representations capture what they look like after construction. Accordingly, they are a frequent adjunct of post-construction genres, particularly those driven by aesthetic concerns like building reviews, where photographs are as important quantitatively and qualitatively as technical drawings.

Despite their differences, discipline-specific images and photographs share a similar representational concern. Both offer a view of buildings that rests upon their qualities, class inclusion and compositionality or spatial relationships, a representation that allows viewers to define, analyze and/or classify the reality thus schematized in concomitant ways.[6] Nevertheless, they involve different epistemic stances to the reality they encode or, as scholars dealing with visual design and communication describe it, realize two different kinds of *visual modality* (Kress and van Leeuwen 1996; Jewitt and Oyama 2001). On the one hand, technical images illustrate *scientific* modality, that is, they display a conventionalized way of configuring reality prototypical of science and technology in general. On the other, photographs are characterized by *naturalistic* modality since, in principle, they are more true to life. Such different epistemologies may explain the high percentage of photographs in aesthetically driven genres versus the preference of technical genres for highly schematic, drawn representations.

However, the fact that pictorial devices can capture both the visual and non-visual properties of buildings does not mean that architects' work is a non-verbal affair. For one thing, images are generally accompanied by some sort of verbal labeling or commentary, such as captions, which sug-

gests that they are not self-explanatory devices. Moreover, as pointed out earlier, architects not only draw their ideas, but also, and most importantly, discuss them throughout the design process.

This going back and forth from words to pictures is described by Ackerman and Oates (1996: 83) as follows:

> For the architect, the design problem is both rhetorical and semiotic. The practicing architects that we studied were hired to translate the needs and routines of a client into a plan for a building. But their professional challenge was to read an audience and situation and to produce a design concept that fits their agenda as well as that of their client. This persuasive, rhetorical process involves working with and across a range of graphic and verbal signs. ... Architects begin with a lived or natural site and work back and forth, from image to text, from sketch to verbal description, until they negotiate a reconfiguration of that site.

In other words, although architects are specifically trained for graphic reasoning and communication, and in spite of views on drawing as *the* only medium in architecture, the discipline is also heavily dependent on verbal communication. In the first place, it should be noted that graphic representation is a fairly recent component of a craft transmitted in verbal form for most of its existence. At the same time, a great deal of architects' work involves interacting with people outside the community who, as Ackerman and Oates (1996: 92) put it, "don't see ... don't think visually." Indeed, design scholars have drawn attention to the potential of linguistic descriptions for conveying "shades of meaning not allowed by the drawing" (Lawson and Ming Loke 1997: 175). Likewise, Medway (1996: 36-37) explains the semiotic mixture characteristic of architectural discourse as a way of compensating for images' lack of illocutionary force when compared to linguistic utterances:

> drawings just are; they do not say. ... Drawings cannot ... perform speech acts. Except for drawings that act in highly specific and conventionalised contexts as signs for words or categories ... drawings cannot warn, promise, instruct, suggest or assert. ... Just because drawings cannot perform speech acts, however, does not mean that they are devoid of rhetorical force. Certain ways of representing may persuade us to view a planned city square as light and airy, a public building as solid and dignified or a house in its landscape as dramatic. ... But language has a particular ability to convey mood

> and meaning through the associations that words bring with them, and this seductive potentiality is particularly important in oral and written presentations of schemes to potential or actual clients. There are thus plenty of reasons why drawing will not on its own do the job architects require to be done and why they have recourse also to writing.

In short, the association between words and pictures characterizing architectural discourse in general has been explained both as a means of facilitating communication between architects and lay people, and as a way of compensating for the pragmatic weakness of graphic representations. However, the differing level of expertise of addresser and addressees is not the only factor contributing to the understanding of the use of images in architectural communication. Rather, the balance between words and pictures is also largely determined by genre. The specific rhetorical goals of any one genre are particularly important in this respect. Thus, those technical and academic texts produced before actual building design and construction, and driven by informative, explanatory concerns (e.g. manuals, treatises, and textbooks), tend to be more linguistically articulated than others. In contrast, post-construction texts with commercial or evaluative goals are profusely illustrated, the building review being a case in point. Academic and technical texts also favor discipline-specific images in contrast to the more artistic graphic representations (mostly photographs) of post-construction genres.

If word-image combinations do not constitute a single, unified semiotic construct, the ways they interact in textual contexts do not display a unique relational pattern either. Captions are particularly illustrative of this point, since their length and degree of elaboration appear to depend on the quality of their accompanying images. Thus, whereas plans and sections are scarcely explicated or verbally described (their captions mainly consisting of labels for the different elements schematized), sketches, scale drawings and, above all, photographs are usually lengthily commented upon in captions. In other words, the different ways in which information is linguistically conveyed in captions suggest that the more scientific the image's modality, the more self-sufficient it is.

Unlike captions, verbal accounts of spatial artifacts in the main text may relate to any image, irrespective of the type of visual representation it exemplifies. Of course, the length of whole texts when compared to captions allows authors to fully develop their views, yet also opens the door for communicative risks. This is particularly the case of evaluative genres like

the building review under discussion in this book. Here, the authorial commentary is often accompanied by such a profusion of graphic data that scholars dealing with such texts have asked, "Are these images read as illustrations of the linguistic text, or is the text a commentary on the images? ... do words and images converge towards similar meanings ... or diverge?" (Markus and Cameron 2002: 151).

Indeed, the highly pictorial – even glossy – quality of contemporary reviews implies that words may become subservient to pictures, rather than the other way round. This becomes more salient if we compare them to reviews dated before the late 1950s, all of which barely include two or three images consisting of free-hand drawings and, less frequently, black-and-white photographs of the building.[7] Thus, although all in all the argumentative thrust in the genre may still be largely dependent upon verbal commentary, this commentary must refer readers to the images in the texts (carefully chosen by reviewers to back up their claims) given the visual bias of the discipline. This complex relationship between text and image may give rise to informative inconsistencies or problems of interpretation and, accordingly, needs to be taken into account both by writers and by analysts of building reviews, as will be discussed in later chapters.

2. Thinking and talking about space: Metaphors architects live by

> Much of the interest of [architecture's] critical vocabulary goes into the choice of particular metaphors to structure thought and experience. [The question is] why have some metaphors succeeded better than others? (Forty 2000: 43)

Architects have always made use of concepts and entities outside the realm of architecture in order to discuss space, a basic yet abstract and highly complex concept. It is by means of such borrowings from other domains of knowledge that architecture has, largely, reached its current wealth and complexity, and architects have met their rhetorical and practical needs, gradually building a discourse of their own.

A brief look at architectural texts from different periods also reveals that, as happens in other professional communities and disciplines, the figurative apparatus of contemporary architects is, to a large extent, the result of a long intertextual process. For instance, the still pervasive analogies

between architectural proportions and those of the human body, or prevailing views of architecture as a language in its own right, are largely indebted to classical and medieval treatises and texts, as well as to their further reworking by Renaissance scholars. As is well known, the ascription of human form and attributes to buildings characterizing certain architectural schools can be traced back to Vitruvius (first century BC), whose views were further strengthened in the Renaissance formula of 'man-as-a-measure' found, for example, in Alberti's *De Re Aedificatoria* or in Michelangelo's drawings. Likewise, the discourse on the Western cathedral of medieval texts such as *De gemma animae* (by Honorius Augustodunensis) or *Mitrale* (by Sicardo de Cremona) also echoed that classical anthropomorphism – even if this anthropomorphic schema was subservient to other transcendental, symbolic concerns. In turn, early views of architecture as a language drew heavily upon the work of Renaissance scholar Giambattista Vico, whose ideas on the imaginative and embodied basis of *logos* (that is, of human thought, language, and art) expounded in *Scienza Nuova*, were also to influence the cognitive approach to metaphor in the last quarter of the twentieth century.

All these views were slowly refined because of influences from different disciplines. Indeed, architectural discourse has always echoed the advances and discussion in fields other than its own, and borrowed those ideas that could suit its particular concerns. Consequently, other domains of knowledge have enriched the theoretical legacy of architects, which, in turn, has been adapted to new circumstances as well as to the changing needs of the discipline. For, before the late eighteenth century architectural practice was basically a matter of skilled craftsmanship regulated by guilds and transmitted through family ties. As reflected by the *ingenio*, *sumptuarius* and *manuarius* types of architect in Evelyn's (1664) classification, architects' work subsumed all the elements and steps in the making of a building: the theoretical work before construction, the combinatory principles and construction conventions, and the actual labor practices.

Matching and, at the same time, marking the shift of architecture from a skilled craft into a science in its own right we find the borrowing of models and images from other scientific domains. Forty (2000: 92) explains this process as responding to architecture's concern to present itself as capable of following scientific methods which would allow for "isolat[ing] and abstract[ing] specific features or properties from the complex phenomenal reality of the built work, and to subject those abstractions to independent analysis." Among the domains able to provide a set of working models and

their corresponding lexis, the natural sciences, linguistic description, and spatial mechanics have furnished the theoretical and critical apparatus of architecture.

2.1. Metaphors from the natural sciences

Drawing insights from the natural sciences and, particularly, from biology and botany architects further enriched their anthropomorphic views, investing them with interests other than external appearance or religious transcendence. This revised anthropomorphism was largely influenced by works such as Linneus's *Species Plantarum* and Buffon's *Histoire Naturelle*, and by the evolution theories postulated by Lamarck, Darwin, and Cuvier.

The new biological analogies stressed the fact that buildings result from an assemblage of disparate elements organized hierarchically, as happens with the different limbs and organs making up the bodies of animals and plants. Views on the correlation of organs drew heavily on the biological principles postulated by Vicq d'Azyr and Cuvier, which shifted from a sole description of bodily organs in terms of their physical appearance and position in the body, to focus on the functions performed by those organs within the whole. Thus, organic metaphors rested upon a view of structure and form as functionally determined, to the extent that describing the structure of organisms started from identifying the functional properties of the different limbs and organs. Since living organisms were seen as hierarchically structured systems, those functions were always related to the ways in which the parts were connected to each other and the functional and structural properties of the whole.

The application of such organic principles to architectural order and to the relationship of the diverse elements within a building became a constant concern thereafter (consider, for instance, the work of architect Charles-Alain Josselyn-D'Ouvrage or that of Jiri Karopjin, author of the *omphalós* or 'spatial navel' theory). Organic metaphors motivated some of the lexis used by architects to name different parts and elements in buildings. For instance, among the lexical items in contemporary discourse derived from biology we find the term *bowels* referring to the internal, often underground spaces of buildings, the term *skin* providing a generic label for the internal and/or external protective layers of spatial volumes, and terms such as *skeleton*, *spine* or *rib*. Likewise, the nineteenth-century architect and critic

Viollet-le-Duc popularized the noun *circulation* for describing the different ventilation and heating systems buried within the walls of buildings, drawing an analogy with the body's cardiovascular system.

Finally, theories of evolution also influenced the architectural preoccupation with the relationship between buildings and their environment, a major issue in the discipline. These environmentalist concerns were particularly salient in the 1960s and have sometimes given rise to a portrayal of the relationship established among architects, buildings, and contexts in terms of violence. The prevalence of the cultural *topos* of nature versus civilization is explicitly addressed in the following commentary from one of the reviews in the corpus:

(1) But the dilemma remains that architecture is always concerned with artefact and must struggle with nature. (Contoursions. *Architecture Australia* 1999, vol. 88/2).

The label *green architecture* applied to a constructive trend interfering least with the environment shows how these views are still current in contemporary practice.

2.2. Metaphors from linguistic description

Language metaphors underlie such conventional expressions in architectural discourse as *vernacular* architecture or architectural *genre(s)*, *syntax*, *vocabulary* or *rhetoric*. This is also pointed out in Forty (2000: 84-85) where it is stated, "for certain aspects of architecture, language provides a workable, and indeed possibly the best, metaphor." The usefulness of language analogies may be illustrated by definitions of the design process as the architect *conversing* with his/her design or drawing (Lawson 1980; Schön 1983), or by the following passage, extracted from a scholarly-refereed journal discussing the first step in the design process:

(2) Ambiguity is the condition whereby the syntactic and semantic content of shapes can be legible in diverse ways. ... Syntactical emergence deals with the syntax of shapes, the syntactical properties, their legibility, and transformations in the sequential evolutionary process of emergence. (Oxman 2002: 140)

Comparisons of architecture to language have been exploited throughout time in response to different disciplinary needs (Collins 1970; Forty 2000). Thus, their use in the seventeenth and eighteenth centuries attempted to redress views of architecture as a mechanical profession by portraying it as a liberal art like literature and, therefore, susceptible to being classified into genres or to evoking moods and emotions. In a similar vein, the evolution of different architectural styles in time was frequently equated with the evolution of literary genres. These early analogies were further developed in the nineteenth century, where views of architecture as a medium of communication were fully expounded in Durand's *Précis des Leçons d'Architecture*, and disseminated by periodical publications such as *The Builder* or the *Revue Générale de l'Architecture.*

Saussure's work in linguistics and his description of language as a system of signs whose meaning is derived from the relationship among themselves within the whole also had an impact on language metaphors. The analogies particularly highlighted the lexical and syntactic aspects of architects' work: constructive elements were regarded as vocabulary items, and the rules to combine them into a coherent and cohesive whole were referred to as *syntax* or *grammar*, as can be seen in the titles of works such as *Grammaire des Arts du Dessin* by Charles Blanc, and *Grammar of Ornaments* by Owen Jones, or in the work of an architect such as Philibert Bercenaux. Consequently, buildings could be described as meaningful and readable texts resulting from the correct combination of lexical devices in accordance with grammatical rules. In the same way, the concept of structure as the element that endowed buildings with intelligibility (also present in the biological analogy seen earlier) was further reinforced through the influence of linguistics.

2.3. Metaphors from spatial mechanics

The nineteenth century also saw rapid advances in engineering because of the Industrial Revolution and Newtonian mechanics, which resulted in the application of mechanical principles to architecture. Thus, as Collins (1970) points out, the century saw the beginning of analogies between buildings and artifacts such as ships, trains and machines, as reflected in the work and writings of architects such as Horace Greenough, James Fergusson, Viollet-le-Duc and Le Corbusier (the latter responsible for the well-known slogan "a house is a machine for living"). Views of buildings as machines, like

biology metaphors, highlighted their functional aspects yet drew upon quite different sources. These metaphors are frequent in today's architectural texts, where elements in a building are often referred to as its *mechanisms* or *mechanics*, and spatial volumes are qualified by means of adjectives such as *operational* or *functional*, among others.

Collins (1970) criticizes mechanical analogies pointing to the fact that in machines form and motion are the two sides of the same coin: machines only become meaningful and/or useful when in motion, that is, they embody the physical expression of a process in time. The implication is that since buildings are inherently static artifacts, comparing them to entities that always involve motion is, at the least, unfortunate. Yet, one of the most outstanding characteristics of architectural discourse is, precisely, the recurrent use of motion terms for describing objects that do not move. This issue is also noted by Forty (2000: 57), who points out that "the notion that architecture represents implied movement within forms that are not themselves in motion has been a conventional part of modernist thinking, and still seems to be widely taken for granted." What exactly is signified by motion terms when applied to buildings is, nevertheless, a knotty question. For instance, Forty explains how *circulation* originally meant 'distribution', referring to both the arrangement of volumes within the overall plan of the building and the communication among different spaces within the whole. At the same time, we have already seen that the term was borrowed from physiology in the nineteenth century to designate the ventilation and heating systems of buildings. In addition, it may also refer to human movement within or around a building. These different senses create an ambiguity characteristic of other motion terms in contemporary architectural discourse, as will be seen in Chapter 5.

Similarly, the term *movement* itself can refer either to the human experience of space involving the motion suggested by spatial forms, or to the routes traced by human activity within the building. This distinction ultimately concerns the well-known difference between two different, yet related concepts. The first of these is the concept of *space*, which, simply put, means the continuum within which objects exist in the world. The second concept is *spatiality*, which refers to the space-perceiving faculty of the human mind arising from, but also responsible for, our experience and conceptualization of space. Indeed, a common assumption in contemporary architecture is that perception and understanding of three-dimensional space can only be achieved through motion, either of the eye or of the body in space. In other words, space is indissolubly linked to motion: by moving

in space, we understand and *create* space. At the same time, we may imagine motion even if we do not actually move. For instance, description of spatial entities such as roads, which allow actual, physical movement along them, often consists of statements such as "The road climbs up the mountain." Thus, something that is static is construed in dynamic terms, suggesting (indeed, even *effecting*) the same movement as the bodies moving along it (for instance, cars or people). As will be seen in Chapters 5 and 6, this is consistent with what Talmy (1996: 213) calls our "cognitive bias toward dynamism" in agreement with the recurrent construal of our experience in the world in dynamic terms, whether the description of spatial scenes or problem-solving activities.

3. This building is a fridge: The thinking eye of architects

> One of the things that happens in design is that, by means of metaphor in language and formal and other associations in the visual mode, things that are not buildings (e.g. fridges) get into the design for buildings. (Medway and Clark 2003: 267)

As the foregoing overview has suggested, metaphor is an intrinsic component of architects' theoretical legacy, underpinning the complex knowledge schemas to be acquired in their long training. Notions of built space articulated by language, biology or mechanistic metaphors are, then, part and parcel of architects' disciplinary acculturation and, therefore, conventional and automatic within the discipline.

In this respect, the fact that architects often use figurative language drawing upon such metaphorical schemas does not necessarily mean that they are aware of this, or that those metaphors are triggered or activated each time an architect uses a figurative expression motivated by these domains. Consider, for instance, the reference to a protruding bulge in a wall as its "paunch" cited earlier. When meeting the expression, a metaphor analyst might regard it as an instance of a biological metaphor, whereby a wall is equated to a living organism with this body part among others. In other words, since "paunch" is a term commonly used to designate a characteristic part of animals, the analyst encountering the expression might interpret it as instantiating a broad metaphorical frame equating buildings with animals, together with everything this involves. Alternatively, she/he

may regard the expression as merely comparing one aspect of the wall (the protruding bulge) with something to which it bears some kind of resemblance (a paunch), an option which does not imply that the whole building need be conceptualized as a living organism. In fact, "paunch" referred to an endemic constructive problem involving uneven walls, that is, walls that do not present a smooth surface but look like paunches and therefore may, literally, become paunches after recurrent reference to them in such terms. This expression is, of course, figurative, yet appeared to be used by the architect cited in a conventional, completely automatic way.

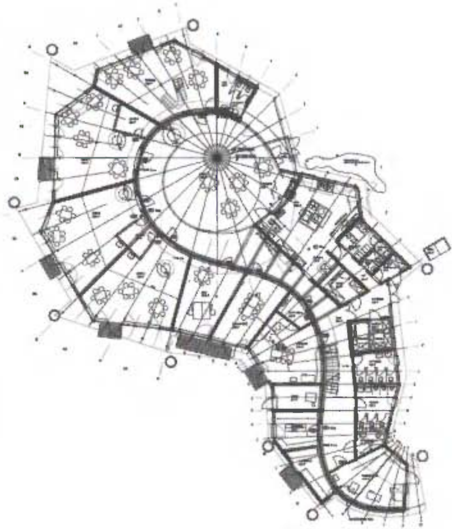
A different question is whether non-architectural concepts and artifacts may be also explicitly invoked in order to generate particular design solutions. In fact, metaphor is also consciously used in the discipline, particularly when thinking up a building; it not only supplies architects with a set of ready-made, theoretical models, but also, and most importantly, meets their more practical needs. Metaphor thus becomes what Darke (1979) calls a design *trigger* or *primary generator*. This is because architectural design is an intrinsically analogical process whereby things (fridges or any other such object) which, in principle, have nothing to do with spatial artifacts, are consistently invoked in their design (Goldschmidt 1994, 1995; Lawson and Ming Loke 1997; Casakin and Goldschmidt 1999; Medway and Clark 2003). Such analogies, and particularly those used in the early stages of design, are mostly visually informed. That is, they draw upon the external similarity of the object used as the generator of a given design and the appearance of the eventual outcome.

In this regard, although a common assumption of design scholars is that architects' craft involves a blend of both perceptual and conceptual mechanisms, the former appear to be particularly important. Nevertheless, this does not imply a clear-cut distinction between visual and non-visual knowledge, as suggested by the phrase *visual thinking* often used to refer to architects' cognitive style (Arnheim 1969; Oxman 1995; 2002). Rather, visual thinking is described as a process that "exploits the perceptual event in order to initiate reasoning with the perceived stimuli of visual objects" (Oxman 2002: 147). In other words, architects are characterized by having a *thinking eye* (Oxman 2002), an expression that captures the complex, multiform knowledge structures involved in their work.

The thinking eye of architects may be appreciated in everything they do, and, of course, in the metaphors employed in both their verbal and graphic endeavors. For verbal expression is not the only means by which metaphors may be formally realized: sketches and plans also reveal architects' use of

non-architectural entities when designing a building. In fact, it is often the case that the metaphor informing a particular design is articulated both verbally and pictorially in architectural texts, as illustrated by the following example:

(3) [The building] needed to be curved for stability, and the curve chosen prompted the development of a tadpole-like plan with entrance and social centre in the head. ... The combination of radial and linear principles in the plan allows transition between centrality in the head and a route distributing to either side in the tail. ... The thick, solid brick wall is visibly the spine of the whole, emerging naked externally in the tail. (Lyrical Geometry, *Architectural Review* 1998, vol. 1214)[8]



Here, the verbal description of a crèche in Bremen is faithful to the physical resemblance of its graphic representation to a tadpole, as explicitly acknowledged in the qualification of the building's plan as "tadpole-like." Parts of this particular tadpole such as its "head" and "tail" are also used for commenting upon the arrangement of the different volumes making up the built whole. The metaphor that may well have generated the design of this crèche is thus discernible in both the graphic and the verbal appreciation of the building.

The tadpole analogy above is, in this respect, visually oriented, as is also the case with a large amount of the figurative language in architectural texts, be it conventional lexis or jargon terms such as *bowstring truss*, *bull-nose*, *ring beam*, *curtain wall(ing)* or more innovative descriptions of spatial structures as *three-sided doughnut[s]*, *pod[s]* or *gargantuan blanc-mange[s]*. The visual bias of architectural metaphors is nevertheless a question of degree. The use of an image such as a "tadpole" may also involve

abstract knowledge of its relational and functional properties. In other words, a visual metaphor in architectural discourse may invoke both an image and a conceptual frame. Indeed, the complex and multimodal nature of architects' work and the lack of clear boundaries between the types of knowledge involved is reflected in the metaphorical language found in architectural discourse, which often exhibits a similar complexity, as will be described throughout this book.

Moreover, it may also be the case that image metaphors, although always present in the discipline, have lately gathered strength. An examination of architectural texts dated before the 1950s[9] reveals that such metaphors are less salient than expressions of other sorts, like, for instance, those concerned with the functional properties of the buildings under discussion rather than their aesthetic qualities (as happens with the biological or mechanistic analogies previously commented on). The discreet presence of graphic metaphors in earlier texts appears to be related to an issue already raised in this chapter, namely that architecture has not always been as visually biased as it appears to be nowadays. In fact, the graphic weight in the discipline has, largely, run parallel with the development of tools for designing and representing built space – the latest versions of which are today's sophisticated Computer Assisted Drawing or CAD programs. Likewise, the growingly visual quality of many of the metaphors involved in contemporary architectural practice and texts may be explained as reflecting, even responding to the importance that graphic representation and tools have acquired in the discipline. If we consider such technical advances alongside changes in the mass media and, particularly, the quality and level of sophistication reached by architectural publications, the current high incidence of visually motivated metaphorical language may not be that surprising after all.

Finally, the metaphors informing architects' work – *ingenio*, *verborum* or otherwise – are far from being neutral. In the first place, as design generators they are highly determinant of *architect ingenio's* shaping of space into a coherent whole, the functional possibilities of such an arrangement, and its future usability. In turn, a review of the resulting building will involve an evaluation of it. In this sense, as will be seen, metaphor may also play a role in signaling the evaluative stance of the reviewer. In other words, although metaphor partly reflects a conventional way of thinking and may be discussed as furnishing reviewers with the heuristic means to accomplish working tasks of diverse types, its actual instantiation in texts suggests that it also conforms part of the strategies deployed by architects

in order to control their discourse. One of the contexts where this twofold purpose and complex dimension of metaphorical language may be best explored is the building review genre, which, as described in Chapter 4, is particularly concerned with post-construction assessment.

Chapter 3
The cognitive and rhetorical dimensions of metaphor

Dealing with metaphor from a situated, discourse perspective imposes some methodological constraints on the way one approaches the research issue. In the first place, it asks for framing the research within one of the many trends subsumed under the somewhat elusive or too comprehensive term *discourse analysis*. As noted earlier, and further described in Chapter 4, the approach adopted here illustrates the main assumptions and methodology in genre studies, particularly those focusing on the discourse of specific, professional communities (Dudley-Evans 1987; Swales 1990; Bhatia 1993; Devitt 1993; Flowerdew 1993; Berkenkotter and Huckin 1995), many of them working from the main premises in the functional systemic paradigm after Halliday's pioneering work (1984, 1985).

In the second place, it requires choosing a theoretical framework that helps explore the intricacies of metaphor in the most comprehensive way. In this regard, the approach chosen follows the guidelines set by Lakoffian research, although it has also drawn useful insights from more applied approaches to figurative language (Goatly 1997; Cameron 1999a; Steen 1999a). Insights have also been drawn from the work of cognitive linguists dealing with grammatical issues rather than with metaphor solely, as will be seen when discussing the ways in which architectural metaphors are linguistically instantiated in the corpus under analysis (cf. Chapter 6).

The purpose of this chapter is to introduce some of the notions and metalanguage used for discussing metaphor in the ensuing chapters. The first broad section provides a quick survey of the basic postulates in the three paradigms which have influenced the cognitive research on metaphor in the last twenty five years, namely: *Interaction* views, *Comparison* views, and *Experientialist* views.[10] The second section outlines several attempts to approach metaphor in real discourse contexts. These are organized according to whether emphasis is placed on identifying the ideas metaphorically conveyed (what I have labeled *ideational* approaches following the language metafunctions in Halliday's functional grammar), on the pragmatic or interpersonal purposes underlying that use of metaphor (*interpersonal* approaches) or on the locus of occurrence and distribution of metaphorical

language within text structure (*textual* approaches). This survey will provide the backdrop for building a more comprehensive framework capable of accounting for the role of metaphor in discourse contexts, hence suitable for applied cognitive metaphor research, as described in Chapter 4.

1. What is metaphor? Defining metaphor

In 1984, Umberto Eco wrote that in spite of the vast amount of literature on metaphor its essentials still rested upon Aristotle's postulates. However dramatic this claim may sound, most contemporary approaches to metaphor may well be defined according to how they incorporate, rework, or contest that classical account. Thus, ever since Aristotle described metaphor as "giving names to nameless things,"[11] his views have been directly or indirectly readdressed in nearly every discussion on figurative language, scholars either arguing against them (e.g. most research after Lakoff) or rehabilitating them (Ricoeur 1975; Eco 1984; Kittay 1987; Mahon 1999). Moreover, three metaphor basics expounded in his *Poetics* and, above all, in his *Rhetoric* have, to a large extent, drawn the line between two main standpoints in metaphor research:

- The *linguistic* standpoint, which regards metaphor and other tropes as exclusively linguistic matters (Bickerton 1969; Davidson 1979; Searle 1979; Cooper 1986; Rorty 1989).
- The *cognitive* standpoint, which sustains that figurative devices play a crucial role in organizing human thought, and is variously represented in such classical works as Black (1962), some of the papers in Ortony (1979), Honeck and Hoffman (1980), and Lakoff and Johnson (1980).

The first element of disagreement pivots on the status of metaphor with regard to ordinary language. Discussion focuses on literal meaning versus metaphorical meaning or deviation versus norm, which some authors have tried to solve from pragmatic or semantic vantage points within the two positions outlined above (Sadock 1979; Searle 1979; Davidson 1979; Kittay 1987). The second controversial issue concerns whether a pre-existing similarity between concepts lies at the basis of metaphor or, rather, is created by it. This can be summarized in the opposition between *non-constructivist* views on metaphor grounded in logical positivism (Quine 1981; Davidson 1984) and *constructivist*, hence cognitive approaches postulating the close relation between thought and language. The latter are

illustrated by Interaction views on metaphor (variously represented in the work of Richards 1936; Beardsley 1962; Black 1962, 1979; Mooij 1976; Ricoeur 1975; Kittay 1987; Indurkhya 1992), Comparison views (Ortony 1979/1993; Miller 1979; Gentner 1982, 1983; Goatly 1997), and what was originally known as Experientialism after the pioneering work in Lakoff and Johnson (1980, 1999), Johnson (1987), Lakoff (1987a, 1990, 1993), Lakoff and Turner (1989) and Gibbs (1994).[12] A final issue relates to the question of how the transfer of meaning in metaphor takes place, and represents the main point of divergence between various constructivist approaches.

Metaphor is broadly defined in the three constructivist paradigms listed above as a transfer of meaning across two entities or ideas holding no apparent relationship, a projection process itself metaphorically referred to as a *mapping* in the experientialist paradigm. This conceptual-level mapping may be formally expressed or realized by linguistic units of different sorts and ranks, whose figurative quality may also show diverse degrees of saliency, unconventionality or metaphoricity as specified by different research trends. These also use distinct labels to refer to the two elements involved in metaphor. Thus, the idea or concept expressed by a metaphor may be variously referred to as *tenor*, *primary subject* or *topic* in Interaction and Comparison views or as *target* in Experientialist views. On the other hand, the idea or concept used to figuratively understand and express that topic or target is labeled *secondary* or *subsidiary subject*, *focus* or *vehicle* in Interaction and Comparison views, and as *source* in Experientialism. For instance, in the metaphorical statement "the building is a supporting player in the urban drama of its surroundings" (cf. Chapter 1), "the building" is the tenor, primary subject, topic or target in the metaphor, and "supporting player" is the secondary subject, vehicle or source. The terms used in this book are source and target in compliance with the experientialist approach adopted to explore metaphor in architectural discourse.[13]

The differences among the constructivist paradigms, however, do not stop at such terminological quibbles. In fact, Interaction, Comparison, and experientialist approaches illustrate different research agendas and, therefore, different assumptions and concerns with regard to the quality and amount of knowledge involved in metaphor, and to the way(s) in which the transfer of meaning takes place. Nevertheless, a detailed analysis of their basic postulates reveals that they do not hold irreconcilable views on figurative phenomena. Indeed, as described in the following sections these three trends may be regarded as illustrating different degrees of commit-

ment to the power of metaphor to create reality, and to the existence of a certain resemblance or isomorphism between the entities metaphorically related.

1.1. Interaction views

The definition of metaphor in Interaction views rests upon the one originally expounded in Black (1962), where metaphor is described as resulting from the interaction between two entities or concepts called *primary* and *subsidiary subject* respectively, which must share a number of traits or *metaphorical grounds* for the interaction to take place. This involves the projection of knowledge or set of associated commonplaces (also referred to as *implicative complex*) of the secondary subject upon the primary subject, a projection that is regarded as bi-directional, that is, as affecting our views of both (the two subjects being, in this sense, created anew *via* the metaphorical process). For instance, in the metaphorical expression "the building is a supporting player in the urban drama of its surroundings" the associations triggered by "supporting player" are projected upon the building thus predicated. Moreover, according to this theory the process would also change our views of both "building" and "supporting player" by emphasizing, suppressing or selecting some of their characteristic features at the expense of others.

This early description, nevertheless, left unexplained the criteria for determining which implications and predicates of the secondary subject are significant in the interpretation of a metaphorical expression, as well as how these are projected onto the metaphor's primary subject (see also Gibbs 1994; Veale 1995; Ruthrof 1997). Furthermore, it did not specify how metaphorical statements should be distinguished from non-metaphorical ones. Kittay's (1987) *Perspectival Theory* represents an attempt to redress these controversial points. She starts by proposing the semantic or pragmatic incongruity of utterances as a criterion for metaphor identification in text. Accordingly, metaphor is defined as "any unit of discourse in which some conceptual or conversational incongruity emerges" (Kittay 1987: 24). She also reformulates Black's system of associated commonplaces or implications, defining these as *semantic fields*, thus stressing that metaphorical projections do not involve isolated features but, rather, a systematically related set of properties. Underlying Kittay's views of metaphor, we find a relational theory of meaning whereby the specific

sense of a given word results from the way it relates to other words in the linguistic system as a whole and in a given context. These relations provide the background against which Kittay explains the metaphorical transfer of knowledge across semantic fields, the apparent incongruity of which triggers the interpretation of a given utterance as metaphorical. Finally, she relates metaphor to what she calls the *second-order meaning* of utterances, defined as the meaning obtained when features of the utterance and its context indicate that the semantic and syntactic information encapsulated in the elements of the utterance (referred to as *first-order meaning*) is either unavailable or inappropriate, that is, points to an incongruity to be pragmatically solved.

1.2. Comparison views

Comparison approaches to metaphor represent an attempt to implement metaphor research with the empirical methods of psychology – the discipline from which many Comparison scholars originally come. These regard metaphor as a non-literal analogical mapping or knowledge transfer between two given entities, and, as a result, the exploration of the role of analogy and similarity in the way people process metaphorical expressions is paramount in the approach. The main postulate is that metaphor is grounded in the similarity between the concepts compared in a metaphorical statement. Accordingly, reconstructing that similarity is considered crucial for understanding metaphorical expressions. Comparison views are consequently often regarded as drawing upon the classical, Aristotelian view of metaphor as a condensed comparison statement or simile, yet one that lacks the explicit comparison marker *like*. This, however, does little justice to their attempts to provide a more thorough account of both the relationships and differences between simile and metaphor without abandoning the similarity grounds essential for the existence of both. Thus, in Ortony (1979: 188) we find the following caveat:

> It is often claimed that metaphors are merely implicit comparisons, to be contrasted with similes, which are explicit ones. I have very little faith in this view: first, because I do not think that it is true of all metaphors; and second, because even if it were, it would be totally unilluminating. The fact that metaphors are frequently used to make comparisons ... does not mean that metaphors *are* comparisons. A metaphor is a kind of *use* of language,

> whereas a comparison is a kind of psychological process, which ... is not the same thing as such a use.

In other words, metaphors are grounded in similarity and the cognitive process at work is one of comparison but, as pointed out in this approach, we must distinguish between different kinds of comparison in order to address the relationships among these and metaphor (Ortony 1979; Miller 1979). In general, metaphoricity is described in terms of a cline built upon a literal/non-literal opposition whereby metaphors would stand close to non-literal comparisons and similes. Likewise, metaphors may be discussed and classified according to diverse degrees of creative potential which, as will be seen in Chapter 4, is signaled by the innovative or unconventional nature of the metaphorical expression.

1.3. Experientialist views

The description of the projection of knowledge in metaphor provided in Interaction and Comparison approaches has drawn the attention of scholars from the Experientialist paradigm. These have argued against the interactionist postulates about the bi-directionality of the metaphorical projection and the resulting reciprocal changes in the meaning of the two subjects involved (Gibbs 1994). Instead, they claim that it is the subsidiary subject (now labeled *source*) that plays a crucial role in providing both recall of metaphors and better comprehension of the primary subject or *target*, and in effecting more significant changes in it. Indeed, in a sentence like "the building is a simple two-storey box" it is difficult to argue how the concept of "building" (the target) may change our knowledge of what a "box" (the source) is, whereas the latter does make us conceptualize or, in this case, *see*, the building from a particular perspective. Experientialist scholars have also criticized the similarity grounds upon which all metaphorical projections rest according to Comparison views. Rather, only a subset of metaphors is explained as playing upon the resemblance of the entities involved (a case in point being image metaphors like the one cited above) whereas most metaphors not only do not rest upon similarity but, most important of all, create it anew. In other words, the similarity, if any, only exists through metaphor and not the other way round. In this connection, Experientialism represents the most extreme position on both the creative potential and cognitive nature of metaphor.

Concerning creativity, in defining metaphor as "understanding and experiencing one kind of thing in terms of another" (Lakoff and Johnson 1980: 5) it follows that such understanding and experiencing is intrinsically new, that is, reality *is created* in the metaphorical process. For instance, by thinking of love in terms of a journey, a new concept of love is construed irrespective of how conventionalized it may become in time. One of the misunderstandings concerning Experientialism's proverbial lack of interest in so-called *creative* metaphors may then derive from equating creativeness with unconventionality. Thus, Interaction and Comparison scholars have focused most of their attention on saliently metaphorical language, so that metaphors are usually classified with regard to their degree of innovation. In contrast, experientialist scholars have usually concentrated on those conventional metaphors responsible for our way of thinking and communicating in normal, everyday situations, even if these may be further exploited in more innovative or markedly figurative ways. Given the importance of the creativity-conventionality opposition for discussing metaphor in professional communication, I will return to it in the next chapter.

In compliance with its strong cognitive stance, Experientialism set out to provide a thorough explanation of the figurative workings of mind, picking up long-standing philosophical concerns on the imaginative and anthropomorphic basis of *logos*, that is, of human thought and language (already expounded in Giambattista Vico's *Scienza Nuova* [1725] even if in an embryonic form). The starting assumption in the paradigm is that we organize our understanding of the world by classifying and categorizing reality according to our primary experiences. Two of the most basic categorization operations rely on *basic-level concepts* comprising physical objects (*chair*, *book*), actions (*eat*, *sleep*) and properties (*hard*, *hot*) related to our daily experience, and kinesthetic *image-schematic structures* (Johnson 1987).[14] The latter are grounded in the configuration of our bodies and the associated locomotive functions, and help us make sense of space and those objects in it (e.g. UP-DOWN, IN-OUT, PATH, or CONTAINER image schemas). Both may be described as providing the pre-conceptual blocks for meaning which are combined into the more complex conceptual structures responsible for the organization of knowledge in our brains.

Metaphor is one of such structures or devices imaginatively organizing knowledge in our minds, and is technically defined as a cross-domain mapping from one domain of experience (the source) onto another domain (the target) which is conceptualized in terms of the former (Lakoff 1987a, 1993).[15] The process involves mapping knowledge and, most importantly,

the inference patterns inherent to that knowledge. Thus, Lakoff and Johnson (1999: 128) claim that "the fundamental role of metaphor is to project inference patterns from the source domain to the target domain." Accordingly, as described in Ungerer and Schmid (1996: 120), "what is transferred, then, by a metaphor is the structure, the internal relations or the logic of a cognitive model." It is this inference-projection property of metaphor that lies at the core of the experientialist claim that human reasoning cannot do without metaphor.

Experientialist scholars have also striven to differentiate *metaphor* as a general cognitive mechanism from *metaphorical expressions*, that is, the specific words instantiating one or more conceptual metaphors. However, this strong cognitive bias has also often led to neglect of the linguistic dimension of metaphor. Likewise, although starting from linguistic evidence, the description and classification of figurative phenomena are done at a cognitive level; that is, focus on deep-level cognitive mappings irrespective of the diverse ways in which these may be linguistically instantiated, a mode of operation criticized by several scholars from diverse persuasions (MacCormac 1990; Goatly 1997; Cameron 1999a). Thus, as Goatly (1997: 42) puts it "although Lakoff and his followers see metaphor as primarily a cognitive phenomenon, ... I stress its linguistic and textual nature. Cognitive metaphors have to find expression in some medium, and when the medium is language the form of the expression will have important consequences for their recognition and interpretation."

Nevertheless, all in all the experientialist approach represents the most comprehensive way of explaining why people speak metaphorically, providing a sensible account of how knowledge is transferred from one domain of experience to another, and describing how large metaphorical systems help structure our mind. In clear contrast with Interaction views, experientialist scholars regard metaphorical processes as unidirectional, and have attempted a more refined explanation of how the set of correspondences between domains (roughly corresponding to Black's implicative complex) takes place, as specified by what is known as the *Invariance Principle* (Turner 1990, 1993; Lakoff 1993). According to this principle, "metaphorical mappings preserve the cognitive topology (that is, the image-schema structure) of the source domain, in a way consistent with the inherent structure of the target domain" (Lakoff 1993: 215). In other words, the Invariance Principle posits that for a metaphorical mapping to take place the source and target must share at least certain traits, or to put it in Lakoff's terms, the most abstract level of their image-schematic structure.[16]

This, as can be seen, is not so radically different from the postulate in Interaction and Comparison views that there must be some degree of isomorphism between topic and vehicle in metaphor, yet represents a more elaborate account of this prerequisite. As an example of this structural match, let us consider some of the metaphors found in architectural texts.

Buildings are first and foremost huge containers used for sheltering people and things. They are characterized by having an interior, an exterior, and a boundary delimiting both, three basic elements present in the logic of the cognitive device referred to as the CONTAINER image schema described by cognitive linguists and psychologists (Johnson 1987; Lakoff 1987a, 1990; Lakoff and Johnson 1999). This containment aspect of buildings, however commonsensical, is explicitly invoked in architectural discourse: "Normally, an interior space has for its *bounds* walls, piers, ceiling and floor, being the traditional elements. Windows and doors serve as *connections with the exterior*. By these, the technical elements of a space are determined." (Krier 1988: 72) [emphasis mine]

The structural elements of the CONTAINER image schema that are usually realized in descriptions of buildings are the interior and the boundary. These are often articulated by means of anatomical metaphors, as suggested by terms such as *skin* or *shell* used to refer to the outer coverings of built artifacts, and reference to the interior of a building as its *guts* or *bowels*. By way of illustration, consider the following passage from the corpus:

(1) While Cracknell, Lonergan, MacMahon and Nicholas have skilfully layered the geometry of the existing building, *Richard Goodwin, metaphorically, has dumped the guts on the footpath*. But what is ... [3PARAS~1.TXT]

Here, the equation of a building's interior with its "guts" may be seen as partially motivated by a CONTAINER image schema whereby both buildings and living organisms are seen as containers and, accordingly, as having an interior. The logic of the metaphor is ensured by the mapping of the interior element in the schematic structure of the source domain (i.e., the guts of the living organism) onto the interior of the building rather than onto any other part. Likewise, many metaphors in architectural texts drawing upon visual knowledge (for instance, the description of a building plan as "tadpole-like" discussed earlier) appear to be motivated by shared image-schematic structure between source and target (in this case, a similar contour or boundary, as will be seen in Chapter 5). The Invariance Principle ensures the non-

arbitrary nature of metaphorical mappings like these by constraining the choice of both source and target domains and those sub-domains within them involved in the mapping, as well as the unidirectional nature of the process, all of which results in the internal coherence of metaphor.

This first formulation of the Invariance Principle, however, did not fully explain how and why different metaphors relate among themselves, as happens when we conceptualize a single aspect of experience by drawing upon diverse domains of experience as evoked by linguistic expression (for instance, arguments can be conceptualized in terms of such different entities as journeys and buildings). Various explanations have been provided in this respect.

One possible explanation is provided in Grady's (1997) theory of metaphor decomposability, which posits the existence of a hierarchy where a restricted number of metaphors are susceptible to being broken down into more specific ones. Grady discusses the existence of complex or *compound* metaphors which are decomposable into smaller ones referred to as *primary metaphors*. These are defined as basic metaphorical correspondences characterized by their self-contained and non-decomposable nature, and by the fact that they arise directly from our sensorimotor experience – their bodily grounding ensuring the grounding of the complex whole. By way of illustration he describes how the compound metaphor THEORIES ARE BUILDINGS belongs to "a system of related mappings, a many-to-many correspondence network, which also includes THEORIES ARE TEXTILES, SOCIETY IS A TEXTILE, SOCIETY IS A BUILDING, and so forth" (Grady 1997: 272). The coexistence of these metaphors is explained as partly resulting from the mapping of the physical structure characterizing both buildings and textiles onto the concept of organization underlying such abstract entities as theories or society. In other words, our perception of physical structure helps conceptualize abstract structure *via* the primary metaphor ORGANIZATION IS PHYSICAL [PART-WHOLE] STRUCTURE, which is an example of metaphorical correspondence arising directly from experience. According to Grady (1997), the existence of primary metaphors ensures the non-arbitrary nature of metaphor formation, and helps us predict the amount of knowledge mapped across domains as well as explain the relationships among metaphors in our conceptual system.[17]

Another explanation may be seen as coming by the hand of what is popularly known as *Blending* theory, which, although not concerned with compound or primary metaphors *per se*, posits the existence of diverse

sources in any figurative (metaphorical or otherwise) mapping and, in this sense, could also explain the cases cited earlier.

1.3.1 Blending theory

As happens with cognitive approaches to metaphor and other related phenomena, what is alternatively known as *conceptual blending*, *conceptual integration*, the *many-space model*, and the *network theory* set out as an exploration of how people integrate information in their brains in understanding not only figurative language, but also diverse discourse phenomena (e.g., counterfactuals, hypotheticals, narrative tenses, deixis, and so forth). A mental space is a knowledge packet, derived from our long-term knowledge store, and constructed ad-hoc to perform certain cognitive operations (e.g. understanding others in verbal interaction), one of them being, precisely, processing metaphorical language. However, while metaphor researchers see the latter as consisting in a two-domain mapping (i.e., mapping knowledge from a source domain onto a target domain), Blending theory posits the existence of as many source domains or *spaces* as needed to understand the linguistic data at issue (Fauconnier 1985, 1994, 1997; Fauconnier and Turner 1994, 1996, 1998; Turner and Fauconnier, 1995, 2000; Coulson and Oakley 2000). In other words, blending involves projecting knowledge from two or more input mental spaces into a new space called the blended space or *blend.*

As described in Fauconnier (1997), the different types of mapping across spaces may include *projection mappings* such as metaphor and analogy, *pragmatic mappings* such as metonymy and synecdoche, and *schema mappings* roughly corresponding to the frames and scripts described by Schemata Theory and Artificial Intelligence research (Bartlett 1932; Minsky 1975; Winograd 1975; Mandler and Johnson 1977; Schank and Abelson 1977; Rumelhart 1980). This has led some scholars to regard the theory as providing "a unifying umbrella framework for a range of cognitive 'siblings' that have been studied with relative independence" (Veale and O'Donoghue 2000: 253). Put in another way, to some extent mental space theory takes the level of abstraction one step further in the sense that those mappings across or within domains characterizing, for instance, metaphor and metonymy can be considered as specific types of blends.[18]

Indeed, blends may not only subsume a variety of models of metaphorical mappings, but their very basic operations can be seen as similar to those

in metaphor. For one thing, both consist of integrating knowledge from the conceptual domains involved (that is, using our knowledge of journeys or war to understand other domains such as life or arguments according to the well-known metaphors LIFE IS A JOURNEY and ARGUMENT IS WAR). In metaphor, these domains have a very basic structure of entities and relations which, as has been seen, gets partially mapped onto the entity or concept metaphorically construed. Likewise, blending "consists in integrating partial structures from two separate domains into a single structure with emergent properties within a third domain" (Fauconnier 1997: 22).

As may be discerned from this definition, a conspicuous difference between blends and metaphor is that whereas research dealing with the latter explains it as consisting of a direct mapping across two domains, in mental space theory this mapping is seen as indirect; that is, mappings take place at a very schematic or abstract level in a third space referred to as *generic space* which contains what source and target have in common (i.e., schematic or structural information). This description of generic spaces brings to mind the Invariance Principle expounded in Turner (1990, 1993) and Lakoff (1993), which posits the preservation of the cognitive topology or image-schematic structure between source and target in metaphor. This appears to be also claimed in Fauconnier and Turner (1994: 25), where we find that image schemas in the sense of Lakoff, Johnson, and Turner define generic spaces at a very high level, with extremely partial and skeletal structure with multiple projection possibilities." This third space together with the source and target input spaces give rise to the actual integration of knowledge or *blend*, the fourth space in the theory. However, the basic postulate in Blending theory that blends create a structure of their own which may be inconsistent with the structure of some of the input spaces appears to be at odds with the Invariance Principle (see also Ruiz de Mendoza [1998] and Ruiz de Mendoza and Peña [2002] in this respect).

Another difference is that whereas in metaphor the source domain may be seen as providing the input for construing the target entity or concept in a figurative way, in Blending theory both source and target are regarded as input spaces themselves, giving rise to the new *blend* construct. In this regard, a final difference, as alleged in the quote above, is that this blend has emergent properties of its own, that is, results from, yet is different from the sum of the information bits provided by the input spaces (which comprises both information from the two input spaces as well as structure from the generic space). In other words, "generic spaces provide abstract scenarios for source and target, while blends provide in a sense richer, more de-

veloped scenarios into which source, target, and generic can all project" (Fauconnier and Turner 1994: 24).

In order to illustrate the differences between metaphor and blend approaches, consider the following passage from the corpus:

(2) The glass slashes are the ends of full-height slots that run right across the building. Using these as the major public volumes, Fuksas *weaves off a surprising variety of spaces.* [2MONTA~1.TXT]

This example instantiates a textile metaphor that may be referred to as ARCHITECTURAL PRACTICE IS CLOTH-MAKING (in this particular case by WEAVING), from which we may also infer the more specific metaphors ARCHITECTS ARE CLOTH MAKERS and BUILDING ELEMENTS ARE PIECES OF CLOTH/CLOTHING. From an experientialist perspective, ARCHITECTURAL PRACTICE IS WEAVING above illustrates what is known as structural metaphor, that is, the projection of a rich set of elements across spaces that allows for the structuring of a concept in terms of another (cf. section 4.4. in Chapter 4). This metaphor may be further decomposed into various other more specific metaphors such as ARCHITECTS ARE WEAVERS or BUILDINGS ARE CLOTH – all of them exemplifying what is known as *ontological* metaphor, whereby events, activities, emotions, ideas, etc. are seen as concrete entities and substances. Our knowledge of cloth making in general and weaving in particular and the roles and relations in this cognitive frame get mapped onto architects' practice: both involve technical skill, the following of a number of conventional rules and steps to combine different elements into a unified whole, and respond to certain aesthetic concerns.

The metaphor is, then, different from other metaphors in which spatial knowledge is mapped onto non-spatial entities and concepts (e.g., MORE IS UP) and which are ruled by the logic of an image schema (i.e., a spatial concept). However, the logic inherent to the Invariance Principle is preserved in the sense that actors are mapped onto actors (i.e., the weaver is mapped onto the architect), combinatory rules from weaving practice are presumably mapped onto the combinatory rules in building, and the final textile product is mapped onto the built artifact. Moreover, since what is emphasized in the expression is the combinatory process in architectural practice (i.e., the combination or arrangement of several parts into a whole), we may well argue that the metaphor is related to the primary metaphor ORGANIZATION IS PHYSICAL [PART WHOLE] STRUCTURE (even if in the case

of the architectural example above both source and target are physical entities themselves).

In turn, Blending theory would explain both views of weaving and of building as providing input for the metaphor BUILDING IS WEAVING in the particular expression illustrated in passage 2 (i.e., as being two input spaces for the final blend). These would project their shared structural properties (mentioned above) onto the generic space. The final blend would then recruit structural information from this and specific details from the source and target input spaces – in our case, the combinatory aspect shared by both weaving and building as well as the inferred view of architects as weavers and the built artifact as a piece of cloth. The resulting metaphorical schema would thus use partial information from all other three spaces, yet would provide a richer view than the one(s) provided by each of those spaces. That is, the construal of building practice as weaving would be richer than our common views of both activities taken in isolation.

As may be discerned from this brief explanation, and has been pointed out by Forceville (2004: 86), "in essence the basic mechanisms of the many-space model was, with different names, already largely familiar from metaphor theory." He also claims that the views of blends as characterized by emergent structure and features can actually be traced back to interaction scholars such as Black (1977/1979), Richards (1936) or Ricoeur (1975, 1986), all of whom saw metaphor as changing the views of both source and target and, therefore, of being more than the sum of their components (a bi-directionality rejected by experientialist scholars, as discussed earlier).

Moreover, although Blending theory may be valid for explaining an example like the one illustrated in (2), it may be less useful for exploring other architectural metaphors where only one very specific trait from the source is mapped onto the architectural target. A case in point is the vast number of imagistic mappings that result in reference to a building as a *pod*, a *tadpole* or a *zeppelin* given its physical resemblance with these entities. As will be seen later, in many such cases the mapping only concerns a very concrete trait shared by the entities metaphorically related, which may be explained in more simple terms (e.g., by alluding to the metonymic motivation of such image metaphors, as will be seen in Chapter 5). In other words, Blending theory can, of course, explain the mechanisms whereby a metaphor like A BUILDING IS A ZEPPELIN is understood or processed; however, in many such cases *classical* metaphor theory is equally useful and explanatory.

Indeed, Fauconnier and Turner (1998) themselves appear to acknowledge the validity of experientialist approaches in the analysis of what they call *simple* or *one-sided* networks or blends:

> In a simple metaphoric blend ... projection from inputs to blend is highly asymmetric: one of the inputs but not the other supplies the organizing frame and therefore frame-topology. This is why it seems appropriate to call that input the *source input*. The projection of the source frame to the blend carries with it linguistic constructions (e.g. vocabulary) used to evoke the source frame. (Faucconier and Turner 1998: 166)

It seems then that in these cases, the conventional analysis carried out within the Lakoffian paradigm may be not only valid but, to some extent, simpler (i.e., necessitates less diagrammatic paraphernalia), which may well be a strong argument for its adoption instead of the more complex analysis involved in blends. This is also suggested by Harder (2003: 92) when proposing "adherence to a basic principle of conservatism that ultimately goes back to Ockham, i.e., that complexities in theoretical assumptions must be motivated by complexities in the data. If there is a theory that can account for the same data with less heavy theoretical artillery, that theory should be preferred until further notice."

Of course, not all figurative expressions can be neatly explained as resulting from a one-sided, simple mapping, particularly when the expressions co-occur in the same textual context. This is the case of architectural texts where buildings may be simultaneously referred to and described as a "bubble", "a gargantuan blancmange", and a "giant jellyfish", as shown below:

(3) *MAGIC BUBBLE. Hovering like a gargantuan blancmange* above the Greenwich Peninsula, the Millennium Dome is now an inescapable part of the London skyline ... Engineered by Buro Happold, it is the world's largest *membrane structure* ... The hemispherical structure is clad in 80 000 sqm of Teflon coated glass-fibre panels. The smooth fabric surface is alternately hermetically opaque during the day and eerily translucent after dark; *at night the entire structure glows and pulsates like a giant jellyfish.* [2MAGIC~1.TXT]

Given the number of source domains susceptible to being mapped onto the building above, one may consider the benefits of analyzing such cases fol-

lowing the guidelines proposed by Blending theory for, as already seen, one of the main tenets (and advantages in relation to other approaches) in the theory is that linguistic expressions may evoke as many input spaces or domains as necessary for their understanding. In other words, the usefulness of this theory may lie in the fact that, in certain cases, the interpretation of the metaphorical language in a particular textual stretch may require invoking knowledge from more than one domain (i.e., source domain or input space). However, invoking the presence of various input spaces in a given metaphorical passage (i.e., what may be called the co-mapping of different sources onto a single target) does not imply rejecting insights from metaphor theory. In this respect, it should be noted that the co-mapping of several metaphorical sources onto a single target has also been accounted for by metaphor scholars: see, for instance, the phenomenon referred to as *metaphor composing* in Lakoff and Turner (1989) or what Goatly (1997) calls *metaphor diversification* (cf. section 2.3. in this chapter). A different issue is whether the co-instantiation of metaphorical language – simply – responds to some of the rhetorical – discourse – constraints conflating in a particular text or parts of it. The question to answer here does not only concern the processes involved in understanding the different expressions, but also the reasons why these co-occur in a given context. In such cases, notions handled by discourse analysts of different persuasions such as coreference, anaphora, lexical cohesion, theme and rheme, etc. may provide a more useful, yet less process- or conceptually-biased explanation than the one derived from approaching the issue from a cognitive-only perspective.

In sum, Interaction, Comparison, and Experientialism researchers have approached figurative phenomena from different perspectives and described them in varying degrees of detail, yet share common ground in some respects. For one thing, all of them depart from previous cosmetic views on metaphor as a mere surrogate for literal language, stressing its cognitive status and its potential to create reality. They also illustrate various degrees of commitment to the similarity basis of metaphorical transfers however differently this may be technically explicated (e.g. the Invariance Principle). The three approaches here outlined, nevertheless, differ in their greater or lesser detail of explanation of the intricacies of metaphor and of its role in the figurative construal of our experience in the world, Experientialism providing the most comprehensive account of the poetic workings of mind.

As has been pointed out, the views on metaphor sustained in this book follow the main guidelines proposed by Experientialism. That is, figurative

expressions are regarded as the *surface* phenomena of the general cognitive mechanism known as metaphor. This is seen as usually involving an asymmetrical mapping across two domains[19] although, as also suggested throughout the previous discussion and described within the theory itself, linguistic expressions may actually invoke more than one metaphor or, better put, a complex array of metaphors related among themselves *via* higher-order and/or primary metaphorical schemas such as ORGANIZATION IS PHYSICAL STRUCTURE or the EVENT STRUCTURE metaphor.

The explanation of the reasons underlying the co-instantiation of several metaphorical expressions in textual contexts is, nevertheless, a different matter. For, although this co-occurrence may help us gain some insights as to the figurative workings of mind (in our case, the collective mind of architects so to speak), it also appears to respond to the various discourse factors that converge and show up in texts, and, therefore, needs to be explained accordingly (i.e., using discourse analysis tools). A caveat is in order in this regard. As stated in Chapter 1, my main aim in this book is to describe the role of metaphorical language in a very specific instance of architectural communication and, as a result, the role of metaphor in architectural thinking – as suggested by linguistic expressions, that is, the *products* of metaphorical thinking. The explanation of these as instantiating metaphorical mappings or diverse combinations of these is, in this sense, the result of the analyst's appreciation, rather than an analysis of how architects actually understand (i.e., process) the expressions and the cognitive mechanisms that may be involved in such understanding, even if the analysis may well provide some insights in this direction. In contrast, metaphor theory in general and the experientialist paradigm and Blending theory in particular aim at gaining more knowledge on the latter, that is, are more psychologically biased than the approach adopted in the present work.

2. What are metaphors for? The rhetorical dimension of metaphor

Claiming that human reasoning is largely metaphorical and imaginative not only involves attempting to determine the role of metaphor in our cognition, but also how we use metaphor to communicate. Emphasis needs therefore to be placed on the social dimension of figurative phenomena integrating the conceptual, formal, and contextual aspects involved, even if the former has often been granted with the lion's share in metaphor research.

Within current approaches to metaphor, one that explicitly adopts an applied, discourse stance is that of Goatly (1997). He describes the role of metaphor in discourse following Halliday's (1984, 1985) ideational, interpersonal and textual metafunctions of language while noting, "metaphors fulfill more than one function simultaneously" (Goatly 1997: 149). Although in general his description may be discussed as a systematization of previous views on metaphor's communicative role (e.g. the three functions are implicit in the discussion in Ortony [1975], Gerrig and Gibbs [1988], Crider and Cirillo [1991] or Albritton [1995]), his threefold functional grouping of metaphor's role in texts may provide a starting point to devise an analytical procedure along which applied cognitive metaphor research might operate, as I shall attempt to outline in the following chapter. In the meantime, Halliday's metafunctions may well be used to briefly survey how metaphor's functional role has been explored and/or discussed. This grouping nevertheless responds to expository needs rather than illustrating a unitary research focus.

2.1. Ideational focus

Of the three general language functions covered by metaphor, the ideational function has deserved the lion's share in metaphor research. The domain where metaphor's epistemic potential has been most frequently acknowledged is that of science (Boyd 1979; Kuhn 1979; Gentner 1982), to the extent that Boyd (1979) singles out a special type he calls *theory-constitutive* metaphor as playing a crucial role in the development and articulation of theories in science by both providing new insight into scientific phenomena and creating "theoretical terminology where none previously existed" (Boyd 1979: 357). This is contrasted to what he calls *exegetical* or pedagogical metaphors, whose main role is to teach or explain theories even if these may also be well formulated in non-metaphorical ways. In this sense, although attention is particularly devoted to constitutive metaphor, the interpersonal needs covered by metaphor are also addressed as intrinsic to its use as an explanatory device.

Boyd's views will be incorporated in different – general or specific – accounts of metaphor and, thus, we find both types in Indurkhya (1992) under the names of *comparative* and *projective* metaphors respectively, and in Ungerer and Schmid (1996) where a functional distinction is drawn between *constitutive* and *explanatory* metaphor. Both roles are also indirectly

present in studies devoted to architectural discourse (Ackerman and Oates 1996; Medway 1996, 2000; Forty 2000), where metaphorical language has been often explained as meeting disciplinary needs at critical moments of theory formation (Forty 2000), as well as fulfilling the needs of architects when interacting with people outside the community. Finally, research on metaphor in educational settings basically hinges upon its explanatory potential (Petrie 1979; Sticht 1979; Lindstromberg 1991; Mayer 1993; Petrie and Oshlag 1993) as derived from views on metaphor as a "bridge from the known to the unknown" (Petrie and Oshlag 1993: 584). In this respect, Mayer (1993) accounts for a type of metaphor (*instructive* metaphor) which helps learners to direct their attention towards key information about new concepts, connect new events into a coherent structure, and integrate old and new knowledge.

It is experientialist scholars who have paid greatest attention to metaphor's ideational dimension because of their strong conceptual approach to the subject. Thus, despite Lakoff and Johnson's (1980: 153) views on metaphor as "a matter of thought and action" with social consequences, it is the matter-of-thought aspect that has been mainly cherished within the paradigm. Likewise, attempts to explore metaphor in discourse contexts along experientialist guidelines have tended to concentrate on metaphor's contribution to building up a certain world view, be it that of a particular literary work (Tsur 1992; Simon 1994; Jahn 1997), or that of a cultural, professional community or domain (Dirven 1994; Koller 2004; Musolff 2004). Discussion of the latter has usually centered on the figurative motivation of professional jargon, often considering further application to the LSP classroom (Lindstromberg 1991; Henderson 1986, 1994, 1998; Boers and Demecheleer 1997; Boers 1999, 2000).

2.2. Interpersonal focus

A classical attempt to clarify the general communicative function(s) of metaphor is illustrated by Ortony's (1975) three hypotheses, where metaphor is regarded as a tool for overcoming language 'limitations'. In the first place, metaphors provide a way of expressing ideas difficult to convey otherwise, as specified by his *inexpressibility* hypothesis. Secondly, the *compactness* hypothesis explains metaphor as a shorthand device in order to convey a great deal of information succinctly. Finally, the *vividness* hypothesis draws upon one the classical uses of metaphor, i.e., that of convey-

ing information in a vivid and memorable way. The implicit assumption in all three hypotheses is that metaphor is a resource we consciously seek when everything else fails, rather than actually underlying a great deal of conventionally used language. Nevertheless, although metaphor may be indirectly portrayed as a surrogate for literal language, Ortony's views have powerfully influenced further discussion on the role of metaphor to cover interpersonal needs.

Later work has made explicit the pragmatic bias in Ortony's hypotheses (e.g. Gerrig and Gibbs 1988; Albritton 1995). Thus, Gibbs (1994) offers an overview of the communicative potential of metaphor, describing figurative talk as often presupposing and reinforcing intimacy between interlocutors, informing others about one's own attitudes and beliefs, and providing signals of the nature of a given interaction (e.g. intimacy, formality, hostility, membership, etc.). In this respect, together with fulfilling an informational, ideational function, metaphors are essentially pragmatic devices often used as "reasons to support claims and to emphasize, concretize, or personalize particular issues ... metaphor can indeed significantly change people's attitudes toward various political and social topics ... Metaphor by itself doesn't necessarily change people's attitudes, but when used in conjunction with other prose material, it is useful for highlighting arguments that are consistent with its entailments" (Gibbs 1994: 145).

Research on more specific discourse contexts has further discussed metaphor's contribution to persuasive discourse practices, as illustrated in research on political discourse (Lerman 1984; Howe 1988; Winter 1989; Voss et al 1992; Chilton 1996; Musolff 2004) and advertising discourse (Loffler-Laurian 1994; Forceville 1996; Piller 1999), two types of discourse epitomizing the extensive use of metaphor to promote the acceptance of certain beliefs or ideas, and guide consumption practices. For instance, in Howe (1988) and Voss et al (1992) we find metaphors described as devices deployed for creating common ground between political orators and their audiences, as well as providing the former with a foundation on which to build up their arguments, highlight and downplay political issues at their own convenience and, in certain cases, indirectly exclude certain segments of the electorate – as appears to be the case with the male-centered sports metaphors described in Howe (1988).[20] Similarly, Loffler-Laurian (1994) and Piller (1999) point out that metaphor helps make the mass-media discourse accessible to non-expert audiences by erasing the technical description of certain topics and/or products (e.g. cars), and describe how this is used to monitor their consumption habits. However, al-

though much of metaphor's persuasive potential relies upon its textual rendering, the scarce discussion on such rendering seems, at the very least, odd.

2.3. Textual focus

A first provision of metaphorical patterns in texts may be found in Lakoff and Turner (1989: 69-72) even if their acknowledged purpose is not to examine the managerial, or textual, role of metaphor but, rather, describe four "mode[s] of poetic thought", whereby poets may extend, elaborate, question, and compose conventionally used metaphors for literary, aesthetic purposes. Poets, for instance, can *extend* a conventional metaphor by including those parts of it that are not normally used in everyday thinking. This is the case with "To sleep? Perchance to dream! Ay, there's the rub; For in that sleep of death what dreams may come?" – a frequently quoted example from *Hamlet* where Shakespeare includes the dream element implicit, yet seldom used in the metaphor DEATH IS SLEEP.[21] Literary authors may also *elaborate* some of the conventionally used parts of a metaphor in a novel, unexpected way, as illustrated by Emily Dickinson's elaboration of death's destination in the metaphor DEATH IS DEPARTURE: "Of whom am I afraid? Not Death, for who is He? The porter of my father's lodge." Poets can also *question* the validity of well entrenched metaphors to make sense of our lives, as happens with Catullus questioning of the metaphor LIFETIME IS A DAY by portraying death as "perpetual night to be slept through" contrary to what happens in the day-night cyclic succession. Finally, metaphors may involve the same target in metaphor *composing*, thus producing richer effects upon readers.

Some of these metaphorical patterns are incorporated in Goatly's (1997) survey of seven patterns of metaphor interplay, described within both semantic and textual parameters: that is, how sources help understand targets and how this is lexically realized in text (both ultimately ensuring textual coherence and cohesion). The first type is *repetition*, and concerns the consistent repetition of a source term referring to the same target throughout a text or textual chunk. When a repeated source term refers to different targets each time we have *multivalency*. *Diversification* involves the use of different sources to talk about or refer to the same target, each source term highlighting different aspects of it. This roughly corresponds to *composing* in Lakoff and Turner (1989). Metaphor *compounding* occurs when the

source of a metaphor previously established becomes the target in a new metaphor. *Modification* requires that the source terms mapped onto the same target are related among themselves through lexical relations such as synonymy and the like, or by their belonging to the same lexical set. *Extension* involves a number of semantically related sources being mapped onto semantically related targets, and draws heavily upon both extension and elaboration in Lakoff and Turner (1989). This pattern stands in clear contrast with metaphorical *mixing*, where sources are related syntactically but not semantically. These patterns will be amply illustrated when discussing examples from the architectural corpus here analyzed in Chapter 6 (cf. section 5.).

The managerial role of metaphor in non-literary discourse and, more specifically, in conversation is explored in Drew and Holt (1988, 1995, 1998), whose work represents a truly discursive approach to the role of figurative language in conversation, and has influenced later applied-linguistics research on metaphor. Their main finding is that "the use of figurative expressions in conversation is a property of the design of turns at talk" (Drew and Holt 1998: 497). Thus, after identifying the distribution patterns of figurative language in a corpus of telephone calls, Drew and Holt explain their use as associated with topic termination and with transitions to a new/next topic. Concerning the first aspect, they indicate that figurative expressions usually function as summary assessments of what has been previously reported – a summary function often combined with an evaluative role. Figurative language may also allow the participants in a conversation to become "empirically disengaged" from their topic(s) and ready to give the floor to their interlocutors, who may also use a figurative expression to introduce the new topic. Moreover, figurative language also helps create topical frames within the texts, which contributes to their coherence and cohesion, and hence comprehension.

Low (1997) explores the role of metaphor in an assortment of academic texts paying close attention to the location and density of figurative language in the texts under analysis, the reasons for their presence, and the way metaphor works in conjunction with other rhetorical techniques to help structure topics and texts. His main assumption is that metaphor is a strategy insofar as it serves a given purpose and, therefore, should be learnt by anyone aiming at mastering a given language:

> What the writer needs to know ... in order to construct an appropriate and effective text, is *when*, *where*, *how often* and *in what form* to use the 'argu-

> ment is a building' metaphor, or indeed, any metaphor at all. ... What we need is some indication of how writers use metaphor, or related figurative devices, to help organise and 'manage' academic text. (Low 1997: 1)

He also relates the locus of occurrence of metaphor to topic closures and transitions, and to face and politeness constraints. Among the functions signaled by metaphor's textual distribution, he accounts for (a) negotiating the end of, disengaging or summarizing a topic, (b) positioning the reader with regard to a given topic, (c) continuing to write about problematic topics, (d) marking out an important section, (e) marking a jump to/from seriousness, (f) simplifying an explanation, (g) refusing to take responsibility for action, (h) making a coded aside, and (i) being ironic. His conclusion is that "metaphor use is central to discourse, is principled, is describable and lastly, relates to contexts and activities or skills that language learners might reasonably be expected to develop control over ... metaphor use is an extremely important part of pragmatic functioning, and as such should be involved in language training" (Low 1997: 10-11).

A final insightful contribution to the study of figurative language in discourse is Moon's (1998) research on fixed expressions and idioms (henceforth, FEIs), many of which are metaphorically grounded. Working from the lexicographical and corpus-linguistics trend of research within Hallidayan functional grammar, Moon offers both a quantitative and qualitative study of the textual occurrence and role of FEIs, classifying them according to word class and text function, and discussing the latter with regard to the informational, evaluative, situational, modalizing, and organizational roles of FEIs.

Together with encoding both the writer's worldview and his/her attitude towards topics in texts, Moon (1998: 259-260) argues that FEIs "operate as discourse devices ... Metaphorical FEIs and proverbs represent cultural schemas, with entailed evaluations, and they are marked selections within the paradigm available at a given point in text".[22] Consequently, the evaluation encoded in these linguistic chunks also has an important structural role within the texts in which they occur, an issue that Moon links to the generic ascription of the texts where they may occur. More specifically, Moon stresses that

> the importance of FEIs in relation to discourse and text: in particular, in terms of cohesion, evaluation and politeness. It is significant that FEIs provide cohesive ties within texts, and that metaphorical FEIs function as indi-

> ces of intertextuality. It is significant that many FEIs have strong evaluative content ... Finally, it is appropriate to re-emphasize here that FEIs have roles as enabling devices in discourse: they are not redundant, nor necessarily casual or meaningless lexical choices.... FEIs are a phenomenon of discourse as well as the lexicon. (Moon 1998: 310-311)

In sum, Moon stresses the role of FEIs, and, among these, metaphors, in creating grammatical, lexical and semantic cohesive networks within texts (especially, extended metaphor), and in marking topic boundaries at the beginning and end of texts and paragraphs, calling attention to their role as evaluative and politeness devices.

In the previous sections, I have outlined some of the research on the heuristic role of metaphor in communication, organizing this overview according to whether the main concern is to gain access to the epistemic dimension of metaphor, to determine its role in fulfilling interpersonal needs, or to explore how it helps manage discourse interactions. I have also organized the different works into three groups, as a way to stress that, although all of them provide useful insights into some aspects of metaphor's role in discourse, research integrating all three is still scarce. The next chapter is devoted to discussing one possible procedure for such an endeavor.

Chapter 4
Exploring metaphor in the building review genre

The proposal in this book is that genre provides an operative framework for investigating metaphor in discourse, and, particularly, for exploring the presence and role of metaphor in professional communication. As pointed out in Chapter 1, approaching metaphor from a genre vantage may be a way to go beyond the level of lexis (i.e. metaphor's contribution to disciplinary jargon) to place the emphasis on how metaphor may reveal the worldview of a community, fulfil several rhetorical purposes, and contribute to the unfolding of text according to the genre's conventions. The ensuing sections describe the genre under exploration and the procedure followed in the analysis of the metaphorical language found in the texts ascribed to it.

1. The building review

Building reviews are relatively short texts whose purpose is to describe and evaluate the work of *architectus ingenio* irrespective of whether this is actually erected or is still in project form. They fall into those evaluative practices that, together with more theoretically driven genres, have contributed to shaping architecture's rationale, along with fostering particular architectural trends at different periods. In this regard, the genre has largely contributed to building up the prestige of certain architects, as well as the social acceptance of and consequent demand for specific building aesthetics.

Part of this persuasive potential lies in the fact that reviews are widely read by architects because of the comprehensive nature of the topics covered in the texts. For although reviews may be essentially devoted to describing and evaluating buildings regarded as noteworthy, they often address a large number of issues related to the artifacts under focus as well. For instance, reviews may discuss the current state of the art in the discipline, outline architectural careers or trends, and link all these to broader social concerns (e.g. housing policies). The genre's wide scope and informative potential may therefore explain why it is read by both practicing architects who want to keep up with the latest information in the field, and

by architecture students as part of their training, especially in the middle and final years.

The building reviews used in the research described in this book are specifically aimed at a professional audience, whether architects dealing with building design and/or urban planning or other professionals involved in construction. I chose reviews written in English first because English Philology is my field of study and second, and most importantly, because English is indeed the most widely used language in architectural publications (for instance, Japanese magazines are basically written in English, and well-known Spanish ones such as *El Croquis* provide texts both in Spanish and English). These texts are usually written by architects, and published in specialized periodical magazines concerned with architectural design. However, although the genre may have been originally designed by and for professional architects, it also displays influences from discourses and texts outside the architectural realm, particularly journalistic texts. In fact, architectural reviews written by journalists rather than architects have recently become a regular section in broadsheets and quality magazines aimed at non-specialized audiences. The increasingly popular (as opposed to technical) flavor of some professional building reviews may thus be due to the influence exerted by the all-pervading media discourse. This is particularly salient in the use of catchy titles and leads to attract the readers' interest or in the recurrent presence of intertextual allusions and puns with the same purpose, both characteristic of other review types like, for instance, book reviews in non-academic publications. The following examples may give the gist of the playful, even tongue-in-cheek, use of language exhibited by some reviews in professional publications:

(1) WINDOW SHOPPING. In image-conscious Miami Beach, customers are the commodity in a new supermarket by Wood and Zapata. [WINDOW.TXT]

(2) WALL GAMES. After last year's Robin Boyd win, Durbach Block deliver another lesson in freestyle radial geometry, perspective manipulation and the spatial potential of the sweeping wall. [WALL.TXT]

(3) Like the transformative process of winemaking, Herzog & de Meuron have elevated the most unassuming of raw materials into an architecture which is both functional and beautiful, robust and delicate, tactile and highly abstract. This building, like the wine it houses, is a refined blend of science and art. While highly rational, efficient and

intelligent, Dominus Winery is also a sensuous fusion of nature and the man-made. [3STEEL.TXT]

As shown in example 3, building assessment is also often conveyed by means of language reminiscent of reviews prototypical of disciplines that share aesthetic concerns with architecture, namely painting or sculpture. In this regard, although highly idiosyncratic, building reviews are also closely related to textual practices driven by similar evaluative concerns. In the following sections, we will see how these aspects impinge upon the functional and formal traits of this particular type of review. The first section describes how the genre's rhetorical goals show up in its prototypical structure, and the second section deals with the aspects that differentiate building reviews from other reviews.

1.1. The rhetorical organization of building reviews

The textual organization of building reviews is determined by the descriptive and evaluative aims of the genre. Thus, the texts prototypically show three distinct sections: Introduction, Description, and Closing Evaluation. Each of these is further structured in recognizable textual sequences or *moves* which, in turn, are organized in a number of *steps* and *sub-steps* representing the diverse ways chosen by authors for accomplishing rhetorical goals (Swales 1990). Finally, two other typical components of the genre are the visuals co-occurring with the verbal commentary, and the Technical Specifications Card providing information on the people participating in the project and its budget. The genre's rhetorical organization is schematized in Table 1 on the next page.

Table 1. Rhetorical structure of the building review

TITLE + LEAD (Topic introduction and evaluation summary)	
INTRODUCTION	
Move 1: Creating Context	Step 1: Building a situation – Generalizations and/or – Background information and/or – Description and/or – Other (narrative, anecdote) Step 2: Evaluating the situation – Problem spotting and/or – Claiming importance
Move 2: Introducing building	Step 1: Positioning the building in the previous context and/or Step 2: Highlighting a specific trait of the building and/or Step 3: Introducing the building
Move 3: Providing first evaluation of building	
DESCRIPTION	
Move 1: Providing technical details of building	Step 1: Siting details Step 2: Information on budget and/or construction phases
Move 2: Outlining the general organization and/or appearance of building (overall plan)	
Move 3: Describing the parts/components of building	
Move 4: Highlighting parts of the building	
CLOSING EVALUATION	
Move 1: Providing closing evaluation of building	
TECHNICAL CARD	
VISUAL DATA + CAPTIONS	

Titles and Leads are the places where we find buildings first introduced and evaluated in reviews. The rhetorical importance of these textual loci lies in that they function as *frame builders* for the subsequent text (van Dijk 1988; Bell, 1996), providing concise summaries of the topic(s) developed in it

and, at the same time, anticipating the assessment provided in the moves and steps specifically focusing on evaluation.

Introductions usually comprise three moves. The first of these often functions as a backdrop for the ensuing description and evaluation of the building(s) at issue. In fact, it is here where reviewers usually establish the criteria followed in their assessment, as well as the issues, problems or constraints faced by the building (steps 1 and 2). This is introduced as such in Move 2, which, as shown in Table 1, may be done in various ways. Thus, reviewers may choose among inserting the building within the context previously commented on (Step 1), explaining what makes it worth evaluating (Step 2), or, simply, providing a sketchy (and usually technical) outline of the points further developed in the ensuing description (Step 3). Of these three options, the first two are essentially evaluative. Finally, Move 3 is concerned with providing the first evaluation of the building. This evaluation often anticipates the reviewer's final appreciation of the building in the Closing Evaluation. The following passage belongs to the review "25 Floors of Glamour" (published in the March 2000 issue of *Architecture*), and provides illustration of the Introduction:

> 25 FLOORS OF GLAMOUR. Christian de Portzamparc fashions a new look for New York skyscrapers and the LVMH luxury-goods empire. [1] New York City didn't invent the skyscraper, but it certainly perfected it. [2] Peering out above Manhattan's crowded streets are the icons of the high-rise era, some topped with gilded crowns, others with hushed, dark slabs, but all designed to convey power above all else. [3] These days, there are few high-rises going up in New York, and those that are being built are more concerned with efficiency and speedy construction than creating a lasting, attractive presence on the skyline and the street. [4] Just visit Times Square to see what skyscraper building has been reduced to. [5] The two new towers soaring above 42nd Street are little more than expensive scaffolds for enormous billboards and building-sized electronica; the new Reuters tower is being built so quickly that the curtain wall is going up on the lower floors before the entire steel skeleton is even erected. [6] So whenever a new high-rise goes up in Manhattan, expectations are high that it might break the mold of developer-driven dross and join the pantheon of great Gotham towers. [7] The new U.S. headquarters of Parisian luxury-goods empire LVMH (Moët Hennessy Louis Vuitton) may not qualify as a skyscraper – it's only 25 stories tall – but it does weigh in as one of the most serious and significant structures in the city in recent years. [8] And it took a French client, the glambitious billionaire Bernard Arnault, and a

French architect, Pritzker-laureate Christian de Portzamparc, to teach New York how to do a skyscraper right.

The organization of this passage may be roughly explained as follows: sentences 1 and 2 generalize about the building practice involving skyscrapers (Step 1 in Move 1), sentences 3 to 6 evaluate its present state as a problem for a number of reasons (Step 2 in Move 1), sentence 7 introduces the building by positioning it against the previous situation (Step 1 in Move 2), and sentence 8 provides a first evaluation of the building (Move 3).

Descriptions are the most technical sections of building reviews. They are concerned with describing the general organization of the building under focus (covering external appearance and arrangement, and internal organization), which is often followed by a more detailed account of its different components. Here readers can also find siting details together with information about the legal and financial constraints on the project. However, since sites are among the building constraints that architects must face in their work, they may also be introduced as problems in Introductions (Move 1, Step 2). The last move in the Description section is the most evaluative, and it is found in reviews dealing with buildings characterized by an outstanding feature worth mentioning (e.g. a façade, a courtyard, etc.). Whenever this is the case, Move 4 is the textual operation chosen by authors to articulate a focused description plus evaluation of that particular trait. Let us now turn to the Description section in "25 Floors of Glamour":

[1] The LVMH Tower fills a narrow, 60-by-100-foot sliver on tiny East 57th Street tucked between the 17-story headquarters of rival Chanel and a beaux-arts brick office block. [2] As if squeezing 25 floors of corporate offices and retail space weren't difficult enough on this tiny plot, de Portzamparc had to face the stringent, if somewhat vague, setback requirements that created the familiar stepped profile of New York City's most famous buildings, including the mighty Chrysler and Empire State Buildings. [3] This tangle of regulations forced him to maintain a strong street edge along the ground and then pull back from the street on upper floors. [4] De Portzamparc and architect-of-record Hillier Group pushed and pulled the tower's massing to meet the letter of the law, if not quite the spirit. [5] Instead of stacking the building blocks wedding cake-style, de Portzamparc chamfered them, pinched them, skewed them, and sloped them, discovering a few tricks along the way. [6] "We learned that once you meet a setback, the zoning law doesn't say you can't come back out toward the street," explains Hillier's project architect, John Mulliken. [7] But no architect had ever tried

> this loophole. [8] So de Portzamparc pulled the surface of the tower's tallest volume outward from its 11th-floor setback to the 18th floor and then pushed it in again up to the roof level, giving the volume an angular profile. [9] This prismatic shape "looked sharper and more Manhattan" to de Portzamparc than his earlier schemes of stacked cylinders, "which were more mannerist and unlike New York." [10] The architect also learned that he could leave a percentage of the building volume open, so he created a void in the lower parts of the facade. [11] De Portzamparc dressed the tower's faceted facade in a sexy ensemble of green and white glass. [12] To the east of the angled line that clefts the tower in two, the architect draped a veil of pure white glass sandblasted with shadowbox patterns; to the west of the seam he switched to a gauzy green glass specked with an almost invisible grid of fritted dots. [13] The glass skin, aside from softening reflections of the ominous monolith of Edward Larrabee Barnes's 1983 IBM Building across the street, becomes a luminous folded and pleated sheath. [14] Like a sexily dressed woman, the building reveals glimpses of itself through the fabric of its enclosure. [15] It doesn't demand to be looked at and understood all at once, as a monument, but slowly and seductively. [16] Inside, the tower's outward image of stylish complexity is dimmed by the reality of its tiny floor plates. [17] Though claustrophobic, the lobby's elegant palette of burled wood, tawny sandstone, and illuminated glass creates a suitably luxurious foyer for the owner of such haute fashion houses as Dior, Givenchy, Guerlain, and Vuitton. [18] But once the doors of the three miniscule elevators close behind you – there's not even room for a separate freight elevator – the glamour ends abruptly; cram, not glam, becomes the operative word. [19] The office floors, which Hillier designed to mimic the look of each label's stores, are stuffed to capacity with showrooms, conference rooms, and cubicles. [20] The private offices lining the street facade aren't particularly grand, and they bear the brunt of the façade's geometric irregularities, like a sliver of a window that tapers to a ridiculously small point. [21] The one great interior is what LVMH calls its "Magic Room", a 30-foot-high, 60-foot-square space for parties and fashion shows that fills the tower's top two floors. [22] De Portzamparc choreographed an elegant promenade into the space: elevators deposit partygoers onto a mezzanine, then they descend a curving stair as dramatic – if not as grand – as the staircases of Technicolor musicals. [23] From this perch 25 stories above Midtown Manhattan, you can marvel at the sliced crown of the Citicorp Center, peer into a corner of Central Park, and gaze down on 57th Street, past Tiffany's storied vitrines, all the way across the Hudson River to New Jersey.

The first three sentences in this extract inform readers about the way the LVMH Tower was sited (Step 1 in Move 1), which responds to both con-

textual (i.e. the particular configuration of the site) and legal constraints. Sentences 4 to 10 outline the overall organization of the building in compliance with the constraints previously mentioned (Move 2). This is followed by a textual sequence which starting from a description of the building's outer coverings in sentences 11-15 leads readers towards an account of how its interior spaces are organized in sentences 16-20 (Move 3). This Description closes with a focused description and evaluation of the outstanding trait of this particular building, referred to in the text as the "Magic Room" (Move 4).

The third structural part in reviews is the Closing Evaluation, and consists of one move. Its main concern is to provide a final comment of the building, which often echoes the reviewer's initial assessment in the first evaluation of Introductions (Move 3) or in Titles and Leads. The passage below closes the text used to illustrate the way reviews are prototypically organized, and shows how the final evaluative remarks on de Portzamparc's building return to the fashion and glamour frame set up at the very beginning of the text:

> De Portzamparc's U.S. debut has proven itself suitably edgy and glamorous for the home of LVMH. This is the empire of Arnault, the man who turned the fashion establishment on its ear by installing iconoclastic designers John Galliano and Alexander McQueen as creative heads of the venerable houses of Dior and Givenchy. Arnault's power base is luxury; his building conveys a sense of power with its style, not the cold dominion of such modern high-rises as Saarinen's CBS Building, unaffectionately nicknamed "Black Rock", or the impersonal IBM building. De Portzamparc's tower says a lot about the company's esthetic philosophy, too. While the Chanel building next door is elegant in an orderly, uptight way – like a Chanel suit – LVMH's tower has a loose, imprecise, and forward-looking sense of style. That style is its power – and its challenge to the status quo of the American high-rise.

The commentary on de Portzamparc's building is illustrated by nine photographs (among which three show some of the three-dimensional scale models made through its design), and three plans showing the spatial arrangement of the third, nineteenth and twenty-third floors respectively. The number of visuals in reviews, however, is not fixed, and appears to depend, among other things, on criteria particular to the magazines where these texts are published, as well as on whether the building under focus is al-

ready built or not. For instance, the reviews in the corpus here described incorporate a number of visuals that ranges from 3 to more than 20, and often discuss projects still under construction.

Finally, reviews usually close with what may be called a Technical Specification Card. This usually includes the name of the client, information about the architect(s), engineers, consultants, manufacturers, and construction manager(s) involved in the project, and even the name of the photographer(s) responsible for the pictures displayed in the text.

In general, building reviews conform to this rhetorical structure which should not, however, be regarded as a rigid sequential pattern followed by all texts in the same manner. Indeed, reviewers may follow all or some of the moves and steps, may play with their order of appearance, or even mix or merge some of them. Nevertheless, the organization here described provides a comprehensive analytical abstraction of how reviews are usually structured, and, accordingly, has been adopted as a useful analytical context for exploring how things are done in the genre.

1.2. The building review versus other reviewing practices

Reviews consist of reports aimed at the consumption – understood in broad, not necessarily commercial, terms – of artifacts such as books, films, musical performances and the like, whose assessment is the *raison d'être* of this particular type of text. Evaluation is the main rhetorical purpose of any kind of review; it may be conveyed by diverse lexical and rhetorical devices and, as has been seen, determines the presence of explicitly evaluative textual sequences in the rhetorical organization of texts. In this regard, building reviews are reminiscent of genres driven by similar evaluative concerns like book reviews (Motta-Roth 1995).

However, building reviews differ from other review types in two respects. In the first place, as happens in many other architectural texts, the information in reviews appears in both verbal and graphic form. Secondly, in contrast with book or film reviews in publications aimed at a general audience, reviewers in architectural assessment must comply with a number of requirements dictated by the professional status of the genre. The way the assessment is conveyed in building reviews, and the rhetorical strategies involved, are largely determined by the factors discussed in the following sections.

1.2.1. Viewing or re-viewing?

The starting assumption in any kind of review appears to be that readers do not know anything about the artifacts under focus and, above all, cannot physically access those while reading the commentary on them. Accordingly, reviewers need to provide a sufficiently accurate description that will guide the readers' choice of whether they should buy, watch, or attend the different entities and events thus described and evaluated.

As is immediately apparent, the authors of building reviews have privileged knowledge of the buildings under consideration, and therefore are the best-informed participant in the genre. They have access to both the written and graphic bulk all design projects inevitably generate, and are often in contact with the architects responsible for them, who may provide information difficult to obtain otherwise. Therefore, they may textually reconstruct the architectural project under focus as they like, starting from deciding upon which aspects will be highlighted or downplayed in their commentary. This may, for instance, dwell on the intellectual aspects informing a given design or pay closer attention to its aesthetic dimension without any reference to other abstract or technical issues. Likewise, reviewers may choose to play up a given trait or aspect within those two dimensions, and draw attention to the architect's choice of materials, describe how a given trend is re-interpreted in the new design, or make the external appearance of a façade the topic of the whole review.

However, the textual reconstruction or *re-view* of buildings in architectural texts is essentially different from the description and assessment in book or film reviews.[23] Thus, while the latter relies exclusively on words, building reviews always incorporate graphic representations of the objects under focus alongside the verbal commentary, which allows their readers to go back and forth between the images and the text. The presence of visuals in building reviews therefore allows readers to judge the object under evaluation by themselves, particularly when compared with the dependence (and, presumably, reliance) of readers of book or film reviews on the reviewers' words. However, the *reading* of the images may be guided by the textual commentary, although it can be presumed that the expertise of the readers would allow them, in other conditions, to interpret the images as they choose. Take, for instance, the earlier example dealing with a "tadpole-like" building. Here the verbal description somehow exploits the resemblance of the building with a tadpole explicitly shown in the plan in-

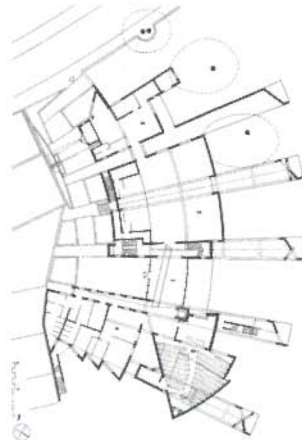
cluded in the text and, in this regard, works hand in hand with the building's graphic representation.

There may also be cases where, as noted in Chapter 2, images and words do not provide such a contingent view of the artifacts at issue. They may also articulate different explanations of buildings and even contradict each other. Forceville (1996: 73) dealing with pictorial metaphors in advertising raises a related point:

> The text of an advertisement is often deliberately ambiguous or enigmatic … and requires information supplied by the picture to solve the riddle. Here one could say that the pictorial information to some extent 'anchors' the linguistic information as well as viceversa. Inasmuch as this means that linguistic and pictorial information complement each other, we should probably say that much contemporary advertising features 'relay' rather than just (linguistic) 'anchor'.

Likewise, the visuals in building reviews may show readers what the design solutions under examination look like in a dispassionate manner. In turn, verbal commentary often involves foregrounding some trait at the expense of others, which may influence the audience's approach to the graphics. Consider the following example from the corpus:

(4) *It is a jagged fan of five overscaled concrete fins webbed together* by an entrance lobby, synagogue, and multipurpose hall, as well as less public spaces … The architect likens the building to *an open book, the five pages of which – the concrete fins –* represent significant events in the history of Duisburg's Jewish population. [OUTOFT~1.TXT][24]



The description in this review draws upon the images of a "fan", a "book", and something consisting of a number of "fins webbed together" which, in principle, are not incompatible among themselves: imagine an open book seen in section with all its pages spread and it does resemble something like

fins webbed together or an open fan. If we now look at the visuals, such imagistic expressions, indeed, capture the external appearance of this spatial arrangement, because it does look like a spread book or fan. However, it also may be said to look like a rake or the spread tail of a dove. In fact, the reviewer later quotes the architect's views of the building as an "outspread hand." These various possibilities suggest that there are diverse ways in which the building's appearance may be interpreted; various metaphors may therefore be used to evoke what it looks like.

This multimodal quality of building reviews, then, makes it necessary to pay close attention to the way the information furnished by the visuals may be related to the assessment verbally conveyed, and the way in which this image-text combination may affect the author-reader interaction in the genre. These issues will be addressed in detail in Chapter 7.

1.2.2. Professional status

Given the expertise of the genre's readership, verbal explanations that go beyond informing architects of something they can easily understand for themselves may be potentially threatening to both the reviewers' and the readers' face. Thus, as happens with other academic and scientific texts, the equal status and expertise of the participants in the genre determines the way(s) in which the reviewers' views are couched in the texts. For, although few practitioners actually become reviewers, and a long career in building design is not a prerequisite for being a reviewer, both sides participating in the professional version of the genre are architects themselves, and hence are equally entitled to make assessments. *Architectus ingenio* may therefore become *architectus verborum* and vice versa.

It is to be expected, then, that this symmetrical situation in terms of status and authority will affect the encoding of propositions in these texts. The presence of hedging devices, and the related pragmatics of text *averral* and *attribution*, may therefore be foreseen. That is, the texts display a number of resources used to signal (overtly or covertly) the source of authority in the texts, as well as the commitment to the views sustained (Sinclair 1986, 1987; Tadros 1993; Hunston 2000). For instance, if they wish to acknowledge responsibility for the opinions expressed in the texts, reviewers may explicitly show that this is the case by using first person pronouns or by using explicit comments and evaluations – i.e., by *positive averral*. Yet, they may avoid open acknowledgement, and this absence of explicit attri-

bution is known as *negative* (in the sense of unmarked) *averral*. On the other hand, reviewers may elude responsibility for what is discussed in the texts by attributing it to a different source. This may be done in one of two ways: by citing another authority (often the architects responsible for the building) or by using general-truth statements. In the absence of explicit citations, however, the authors' convictions may also be inferred.

Both strategies are illustrated in the following extract, which opens with a comment (negatively) averred by the reviewer, and validated by the inclusion of the architect's own words:

(5) One geologically contoured part of the building heaves up from the site like surrounding pre-Alpine hills rising out of the valley, while another part thrusts toward the intersection in an eruption of angled volumes caught in seismic upheaval. "A thickening of the earth's surface is the zone of occupation," says Mayne. "We wanted to come out of the ground and go into it, always breaking its surface." [2HIDDE~1.TXT]

In this respect, it should be noted that, although generally signed by their authors, reviews in professional publications are characterized by the recurrent absence of an authorial first person explicitly committing him/herself to the commentary in the texts. In fact, of the ninety-five texts in the corpus analized in this book, only seventeen use first person pronouns and, among these, barely three use the first person singular pronoun to signal positive averral. This is the case of example 6 below, whose author makes no effort to either conceal himself or disengage from the views expressed:

(6) The lecture theatre is among the most inviting I have seen, with excellent sight lines and generous legroom. ... The abruptness of the angle change between the wings and the acute corner of the entrance also seems to me to reflect a territorial difficulty. ... In my view this [brick tower and clock] also strikes a false note, for it marks no vertical circulation axis like a Gothic (or Modernist) tower, and the servicing aspect is something that the architect chose for good reasons not to articulate. [SPEAKI~1.TXT]

In the remaining fourteen texts, we find reviewers using first-person plural pronouns in an inclusive manner. This is the case of the following example,

where pronoun "us" in "those of us" not only signals positive text averral, but also engages readers in the commentary:

(7) Unfortunately, for those of us who admire Isozaki, and expect more from our architecture, COSI is a disappointment. [SCIENC~3.TXT]

Apart from these few cases, the norm is the absence of an explicit authorial first person. Nevertheless, this does not mean that authors are absent from the texts. Rather, as will be seen in Chapter 7 the authorial presence is implicit in their choice of both literal and figurative language. Indeed, the way that authors use the latter suggests that it is related to face and politeness strategies in the genre.

2. Building a text corpus for analysis

After choosing the community and context for exploring metaphor, researchers need to select the amount of textual data that will allow them to draw generalizations about how metaphors are used by the chosen community in that particular context. For instance, if the main research goal is to examine metaphor's contribution to developing arguments or certain topics in text, one or very few text samples may well be sufficient, and the analytical framework can be formulated according to the idiosyncrasy of the text(s) under analysis. However, if what is at stake is how a given community communicates through metaphor in a particular genre, a manageable yet representative text corpus must be selected.[25]

The work summarized here used a corpus of 95 building reviews, which involved selecting both magazines devoted to architectural design and texts within them. The choice of the magazines was guided by the results of a questionnaire distributed among 100 architects belonging to the Association of Professional Architects in Castellon (Spain) asking them about their reading habits. I was especially interested in retrieving information about the magazines written in English that they regarded as most significant in the field, and the type of article(s) they favored within them. The answers of the 47 architects that filled in the questionnaire determined the inclusion of texts from *Architectural Record*, *Architectural Review*, *Architectural Design*, and *Architecture*. I also incorporated a few samples from *Architecture Australia*, and *Architecture SOUTH* for personal reasons (I particularly liked some of the reviews in them), and because of their quality and audi-

ence potential. *Architecture Australia* is the official magazine of the Royal Australian Institute of Architects (RAIA), and *Architecture SOUTH* is the cyber-version of a print journal, financed by an online resource centre for building design, and aimed at architects and construction-related professionals in the Southeastern area of the USA. This makes the potential audience of both magazines much larger than that of most national magazines of the same type.

From these magazines, I selected the 95 texts that made up the corpus for analysis (all dated between 1997 and 2001), following no particular selection criteria other than that of length. Only reviews with a minimum of 500 words were chosen, in order to ensure that enough description and evaluation were provided, regardless of whether the building reviewed was actually built or not.[26] This decision affected the number of texts selected from each magazine, which only partially reflects the ranking of the six magazines by the architects consulted. Thus, the sample distribution is as follows: *Architectural Review* (34 texts), *Architecture* (31 texts), *Architectural Design* (10 texts), *Architecture Australia* (9 texts), *Architecture South* (6 texts), and *Architectural Record* (5 texts). This 95-text corpus permitted the abstraction of the rhetorical structure of the genre described in Chapter 3, and provided the context for exploring the grammatical form, locus of occurrence and function of metaphorical language in this specific instance of architectural communication.

A corpus alone is of little use if some principled form of analyzing linguistic data is not adopted as well. That is, some reliable means of identifying the form, location, and density of metaphors in texts was required to relate their use to the goals, participants, and general context shaping the interaction under analysis. And, of course, the first item in this research agenda involved distinguishing metaphorical from non-metaphorical language in texts.

However, this issue of metaphor identification is one often understated in current metaphor research, particularly in approaches following the experientialist cognitive tradition. In general, these cognitive linguists appear to take for granted that the identification of conceptual metaphors is unproblematic for researchers exploring metaphor in discourse, as implied by the scant discussion of the issue in the literature. Furthermore, after differentiating *metaphor* as a general cognitive mechanism from *metaphorical expressions* or *linguistic metaphor*,[27] experientialist scholars have customarily been concerned with the former at the expense of the latter.[28] It is thus not surprising that classificatory attempts have pivoted on the cognitive

dimension of metaphor, be it its cognitive function (Lakoff and Johnson 1980), the nature of the knowledge mapped across domains (Lakoff and Turner 1989), or the cognitive processes motivating the diverse types into which it may fall (Grady 1999). As will be seen later in this chapter, among these the second parameter has been paramount for classifying metaphors into two broad types: *conceptual* metaphor and *image* metaphor. These have been distinguished in terms of the types of mapping involved – of abstract information or of images.

On the other hand, scholars with different research agendas have attempted to provide diverse analytical procedures to unearth and formalize the transfer of meaning underlying figurative language of diverse sorts. Thus, Interaction approaches have adopted the semantic and/or pragmatic incongruity of linguistic utterances as a criterion for metaphor identification in textual contexts (Kittay 1987; Indurkhya 1992; Goatly 1997), whereas Comparison approaches have been more concerned with metaphor processing, focusing on how people may interpret figurative language (Miller 1979; Ortony 1979). In the latter trend of research, utterances are measured according to their innovativeness or unconventionality, since this is regarded as the fundamental test of metaphoricity.

In sum, in contrast with the experientialist focus on metaphor's instantiation in conventional, everyday language, both Interaction and Comparison researchers have paid close attention to obviously figurative language, drawing attention to its saliently incongruous or innovative (i.e. metaphorical) quality, and classifying it into diverse types accordingly. Indeed, what actually draws the line between all these research traditions is that they attempt to describe and classify two different, yet related phenomena and use the same term *metaphor* to refer to them. Thus, when Comparison and Interaction approaches talk about the different degrees of creativeness or innovation exhibited by metaphor types, it is metaphorical language that is being discussed. This arises from their concern with the processing activities enabling people to understand language that does not seem to follow linguistic conventions, that is, feels innovative or figurative. Experientialist scholars, in contrast, focus on conceptual metaphor, and are mostly concerned with explaining the role played by metaphorical mappings in our everyday, conventional thinking as reflected in linguistic expression. Their interest in conventional metaphor follows from their strong cognitive stance as well as from the basic assumption that *all* metaphors are creative – or, put in another way, constitute reality. Although we no longer feel the oddity of *falling in love* or *into a depression*, the metaphors motivating expres-

sions like these may be highly conventional or yield language more innovative in flavor and, hence, feel more creative.

In principle, although these – somewhat crudely described – positions need not be wholly incompatible, difficulties arise when attempting to approach the metaphorical data found in real discourse contexts following their basic criteria. One of the problems derives from the innovation-conventionality opposition discussed above, an opposition which may not only substantially affect the selection of the data regarded as worth investigating, but also needs to be discussed as relative to the particular context at issue. The resulting classification of the data identified is also troublesome, since metaphorical language may fit ill within the diverse theoretical accounts in the literature. A case in point is the classical distinction made in Lakoffian research between the conceptual and visual knowledge involved in metaphorical mappings which, although crucial for discussing architectural metaphors, proves especially difficult to put into practice. What follows is a discussion of how contextual factors may impinge upon both metaphor identification and classification.

3. Identifying metaphorical data in texts

When discussing metaphor, the notions of creativeness and conventionality are particularly relevant for exploring figurative language in professional discourses. A case in point is professional jargon, which may well be motivated by metaphor, yet, at the same time, is absolutely conventional. That is, it would be regarded as non-metaphorical by those scholars interested in metaphor processing and metaphorical by those interested in how metaphor constitutes everyday thinking and language.

Indeed, the question of whether professional language is figurative or literal has deserved the attention of metaphor scholars and applied linguists, but the issue remains unresolved. For instance, some researchers do not regard professional jargon as metaphorical in a strict sense, even if metaphor may have been a contributing factor at a given stage of jargon formation. Rather, professional terms and patterns thus derived are described as *fossilized collocations* devoid of figurative content (Partington 1998) or, simply, as literal expressions that fully comply with the conventions of the discipline using them and, therefore, no longer feel semantically or pragmatically incongruous (Kittay 1987). In turn, other scholars have underlined the risks of approaching metaphor without taking into account the

users' point of view, that is, whether these regard their own language as metaphorical (incongruous or innovative with regard to certain conventions) or not. Finally, ESP (English for Specific Purposes) researchers examining the metaphors used by professional communities take into account both saliently figurative language and conventional jargon, and seldom contrast their intuitions with the professionals whose use of language is at issue (see Henderson 1986, 1994; Boers and Demecheleer 1997; Boers 1999, 2000; Charteris-Black, 2000).

The existence of various positions on what should be investigated under the name of metaphor suggests, in the first place, that metaphor identification is far from being an easy or uncontroversial matter. At the same time, it underlines the importance of fully explicating the identification and/or selection criteria adopted in metaphor research, which, in turn, involves specifying whether incongruity (or metaphoricity) is defined from the analyst's or the user's perspective. This particular issue is addressed in Low (1999b). He critically examines several approaches that unilaterally decide what is and what is not metaphorical and, accordingly, worth exploring (Drew and Holt 1995, 1998; Deignan 1997; Cortazzi and Jin 1999), and compares them with more user-centered research (Steen 1994; Cameron 1999b; Low 1999a). However, even the user-centered approach involves the intuitions of the analyst, albeit more than one.[29]

The research summarized in this book falls within the introspective and analyst-centered approaches cited above in the sense that the identification, classification and interpretation of metaphors did not essentially rely upon architects deciding upon the figurative quality of the data under analysis. In order to identify the figurative expressions in the review corpus, I considered whether they illustrated any domain incongruity in reference or attribution (both often suggested by incongruous collocation). A given linguistic expression, then, was considered incongruous or metaphorical whenever it involved the understanding of and/or reference to an architectural entity, agent or process in terms belonging to an experiential domain other than architecture. This meant that the degree of innovation of the expression was irrelevant. Moreover, although I took into account linguistic form as a metaphoricity indicator, the classification of expressions as figurative also took into account their potential to activate a cross-domain mapping at a conceptual level. However, the latter aspect does not imply any claim regarding the actual activation of such mappings each time architects use figurative language. Similarly, it does not mean that they are aware that knowledge is transferred from one domain to another whenever an urban

context is, for instance, described as "tightly-knit," as already noted in Chapter 2.

Nonetheless, I held frequent discussions with architects in order to disambiguate some very specific architectural expressions, and contrast my intuitions on particular uses of figurative language with theirs. One such discussion pivoted on the examples below. These were shown to four architects, who were asked whether they thought the term "wings" in extract 8 meant the same as "wing" in 9:[30]

(8) *A pair of curved glazed wings* extend to embrace the neighbourhood. [CPPARIS.TXT]

(9) The square could scarcely be left open and unprotected, but Wilson had to argue hard to be allowed to project *the south-east wing* forward. [SPEAKI~1.TXT]

All four architects unanimously acknowledged the figurative and, indeed, visual quality of the description in the first example yet had nothing to say about passage 9. Thus, although both examples instantiate the same metaphor and work upon the resemblance of spatial volumes to actual wings, the architects regarded "wings" in 8 as metaphorical, but not the conventional reference to a spatial volume as "wing" in 9, and related the image suggested by "wings" in the former with the also imagistic verb "embrace". Nevertheless, none of them was able to explain why it *felt* more metaphorical than passage 9.

The architects' reaction to these examples addresses some of the points already raised. Thus, although the originality of the expression in example 8 seemed to gear its interpretation as a metaphor, innovation here does not result from the intrinsically unconventional nature of "wings" or from the new information about built space provided by the expression. Rather, it derives from the way in which this is textually rendered, which covers both the co-occurrence of "wings" and "embrace" within the same co-text, and a departure from their usually referential role. In other words, although both are conventionally used to describe spatial layouts in other contexts, here they are combined to qualify a building according to the image or picture evoked by its external appearance.

This discussion hinged upon the same source term as it appeared in two different textual contexts. The following examples (on the next page) illustrate a different situation:

(10) The plan is based on two wedge-shaped volumes pushed together and enveloped by a great oversailing pitched roof, like a big log cabin or ranch house gable. [2RUSTI~1.TXT]

(11) Foyers, auditorium and flytower are all enclosed in a single sculptural form, *like an upturned hull*, running west-east across the main north-south grain of the building. [2BAYWA~1.TXT]

(12) *Hovering like a gargantuan blancmange above the Greenwich Peninsula*, the Millennium Dome is now an inescapable part of the London skyline. [MAGICB~1.TXT]

Passage 10 compares a building with two other building types, the three entities in the comparison belonging to the same architectural domain. Example 11 is somewhat less conventional, even if fairly recurrent in architectural discourse: here "hull" comes from the nautical domain, and provides a differentiated (non-architectural) topology to describe the external shape of a building. Finally, "hovering like a gargantuan blancmange" in example 12 feels more markedly metaphorical than the other two expressions: on the one hand, it is impossible for either buildings or blancmanges to "hover", and, on the other, there is no connection between food and buildings. As expected, whereas the architects regarded example 10 as a literal comparison (as did the analyst), examples 11 and 12 were considered to show different degrees of metaphoricity. The architects acknowledged that describing buildings as though they were ships was metaphorical, but pointed out that it is a commonplace in the discipline. In contrast, "blancmange" was saliently metaphorical for these informants. However, both are equally figurative for this analyst. The architects' reaction to the second set of examples suggests that such debated notions as incongruity, literalness, conventionality, or innovation are, indeed, also related to the nature of the experiential domains from which the source terms in the comparison are drawn, regardless of their linguistic instantiation or of whether they are technically classified as metaphors or as similes.

In short, the metaphorical feel of a given expression may result from the disparity of the experiential domains involved as well as from the way it appears in a particular text, which means that incongruity and saliency are quite different issues when identifying metaphorical language in texts. This brings us back to the question of whether conventional, even fossilized metaphor is a proper object of enquiry because it does not call attention upon itself. If this were the case, research on metaphor in professional discourse would be deprived of a substantial amount of data since the users of

professional jargon very seldom regard it as odd, let alone figurative, however metaphorically motivated it may be. Disregarding jargon as a suitable object of analysis because it largely illustrates conventional metaphor would therefore impoverish any description of how metaphor helps build up the particular worldview of professional communities.

In fact, the vitality of certain conventional metaphors in the thinking of architects is suggested by their susceptibility to being rhetorically exploited, which often gives rise to much more saliently figurative expressions (see also Lakoff [1990: 50] in this respect). This is the case with the term "staccato beat" in the example below, which is used to refer to a sequentially ordered ornamental arrangement instead of the more conventional, yet also figurative *rhythm*:

(13) Despite modern materials such as a corrugated-steel roof, the placement of the hall on the pseudoclassical stylobate of this terrace, along with *the reassuring staccato beat of the concrete colonnade* that forms a veranda facing the river elevation, recall an ancient Greek temple, which comes as a total surprise in the Australian bush. [2BETWE~1.TXT]

Together with showing that the conceptualization of architectural reality in terms of certain metaphors is fully operative and alive, examples like this imply that metaphor may also be consciously, indeed strategically used for communicative purposes. In other words, the figurative language found in texts reveals a conventional mode of thinking as well as the purposeful use of language to achieve rhetorical goals in discourse interactions. In this respect, both conventional and innovative metaphorical expressions may provide useful information about the ways people think and interact in their discourse world.

After collecting the metaphorical data from the texts under analysis, the second research step involves *unearthing* the cognitive mappings thus instantiated. Simply put, we need to specify the transfer of knowledge informing, for example, the reference to the sequential ordering of elements in buildings as *rhythm* or *staccato beat*, which may be formulated as BUILDINGS ARE MUSICAL PIECES. Furthermore, we need to explain how we have reached the conclusion that this is actually the case. For, the A IS B metaphor notation conventionally used in cognitive linguistics may conceal the fact that metaphorical expressions explicitly equating one thing to another as in, for instance, "a house is *a machine for living*" are less frequent than

may be implied by this shorthand formula. In fact, many metaphors need to be inferred from their linguistic realization.[31] However, this is no easy matter. By way of illustration, consider the examples below:

(14) On the southern side [of the building], the dark green painted steel plate cladding resembles a distorted ship's hull; the strong geometrical forms recall naval engineering. *Supported by steel ribs, the muscular south elevation* shields the aerial promenade from the strong winds. [2DRAGON.TXT]

(15) *Stockholm's Royal Library has had one of its periodic spurts of growth.* The old building has been brilliantly added to and converted for modern uses. [ROYALL~1.TXT]

Both "ribs" and "muscular" in passage 14 are motivated by the same organic metaphor, which equates buildings with living bodies. Yet, the analyst does not reconstruct this equation in the same way in both cases. On the one hand, "ribs" refers to an absent architectural target (in this case a support element) which, in this respect, *becomes* (actually, *is*) a rib by means of the referential power of language. The underlying mapping may therefore be formalized as A SUPPORT ELEMENT IS A RIB. At the same time, "ribs" may well suggest an organic view of built space as a whole. In other words, the term may be regarded as a particular instantiation of the superordinate metaphor BUILDING PARTS/ELEMENTS ARE BODY PARTS, which, in turn, may provide the grounds for going further in the level of generality and formulate the metaphor BUILDINGS ARE ORGANIC ENTITIES.

In contrast, "muscular" in 14 and "periodic spurt of growth" in 15 do not allow for this stepwise access to their underlying metaphors. Rather, concluding that the aforementioned terms instantiate BUILDINGS ARE ORGANIC ENTITIES arises from a more holistic process that depends on our default knowledge of the entities susceptible to growing and being muscular. The expressions may also allow for further refining the organic view of built space portrayed in this way. Thus, "muscular" is usually associated with an adult specimen, whereas having "periodic spurts of growth" is typical of the youngest members of any animal species (human or otherwise).

At the same time, there are verbs that may co-instantiate two metaphors. This is the case with *dress*, *clad*, or *wear* in the review corpus, which suggest the metaphors BUILDING ELEMENTS/TRAITS ARE PIECES OF CLOTHING, and BUILDINGS ARE PEOPLE, both underlying an expression like "the building, ... never *wore its newness with pretension*".

Last but not least, syntax has a bearing on metaphor construal. This may be illustrated by a verb like *weave*, which may realize two different metaphors depending on the syntactic subject in the linguistic expression. Thus, whenever it is the architect as in "Fuksas *weaves off* a surprising variety of spaces," we may infer the metaphor ARCHITECTS ARE CLOTH MAKERS (more specifically, WEAVERS) and, therefore, ARCHITECTURAL PRACTICE IS MAKING CLOTH (or WEAVING). In contrast, the expression "The house *weaves* the landscape inside and outside of itself" implies a personified view of buildings, that is, BUILDINGS ARE PEOPLE.

The examples cited so far illustrate that both the semantic and syntactic aspects of figurative language need to be taken into account when identifying their underlying metaphors. However, these provide very basic and, in many cases, insufficient information about all the complexities involved in the mappings. For instance, identifying the metaphor BUILDINGS ARE ORGANIC ENTITIES from a given linguistic instantiation only provides information about the two entities metaphorically related, but does not specify the traits shared by the two domains. These can only be understood by consideration of both the textual occurrence of the expression, and our knowledge of the wider discourse context in which the metaphors are used. For, the A IS B formula may conceal the fact that "periodic spurts of growth" in example 15 deals with the functional aspects of buildings – in this particular case, the need to enlarge and update them to meet new demands, as also happens with some organic entities. In turn, both "ribs" and "muscular" in passage 14 play upon the physical resemblance of a constructive element with one of the bones in the skeleton of animals, and the strong-looking appearance of the whole building.

In short, although the three expressions may be discussed as motivated by a metaphor equating buildings with living organisms, the abstract nature of the knowledge involved in example 15 contrasts with the physical, visual quality of the information conveyed in example 14. Familiarity with the community using such metaphors may thus help us understand the different kinds of knowledge that underlie the figurative construal of professional topics. This, in the case of architects, may consist of images, abstract information, or a complex combination of both. In turn, important information may also be derived from the very communicative context where such metaphors take place, as will be seen in the following section.

4. Classifying metaphor

When discourse analysts look at oral or written texts, they pay attention to any device that may shed light on how these are organized in a coherent and cohesive way. One such device is figurative language, which may well appear, and will be analyzed in agreement with different research agendas. Analysts may, for instance, explore the contribution of metaphorical expressions to creating lexical cohesion, their role in topic management, or the ideological implications of metaphorical language, to list but a few research topics. Their main concern would therefore be exploring how metaphors appear and are used in texts rather than classifying them. Such is the case of Markus and Cameron's (2002) interesting description of how metaphorical language contributes to forwarding particular design practices. However, it pays no attention to whether such language is informed by knowledge of a conceptual or visual kind – even if most of the examples discussed are image-based and, therefore, provide an aesthetically focused evaluation.

There can be no doubt about the value of this top-down, functional stance on metaphor. Nevertheless, attention also needs to be paid to how different kinds of metaphorical language meet the demands imposed by particular communicative interactions as well as how they reflect the idiosyncrasy of the community at issue. A case in point in the analysis of architectural texts is the difference between what are referred to as *image* metaphors and *conceptual* metaphors in experientialist taxonomies (e.g., Lakoff 1987b; Lakoff and Turner 1989). The former are metaphors that map mental images onto other mental images by virtue of their external resemblance (for instance, the reference to constructive elements as "ribs" or the qualification of buildings as "muscular" seen previously). These are contrasted with those metaphors that map more abstract knowledge across two domains and, therefore, are referred to as *conceptual* metaphors. This type may be exemplified in the expression "Stockholm's Royal Library *has had one of its periodic spurts of growth*," which is functionally rather than visually motivated.

Before further discussing the differences between both types of metaphor as well as the frequent difficulties in drawing the line between them in architectural texts, a brief outline of how metaphors have been classified within the experientialist paradigm is in order.

4.1. Metaphor taxonomies

Metaphor may be well regarded as an umbrella term subsuming different types of knowledge transfer across domains, ranging from the mapping of a few traits, as in "John is *a pig*" or "cancer is *my enemy*" to the projection of a whole structural system, as in CAREERS ARE JOURNEYS. The broad range of metaphorical processes has led scholars to attempt their systematization and classification into distinct types, even if, as Lakoff and Turner (1989: 55) acknowledge, "metaphors have many statuses ... Metaphors differ along many parameters ... often the difference is a matter of degree." The classical taxonomies proposed by experientialist scholars are summarized in Table 2:

Table 2. Metaphor taxonomies

AUTHOR(S)	METAPHOR TYPES
Lakoff and Johnson (1980)	Ontological Structural Orientational
Lakoff and Turner (1989)	Concept-to-concept – Generic level – Specific level Image-to-image Image-schema-to-concept
Grady (1999)	Resemblance-based Correlated

A first attempt to classify metaphor is the one found in Lakoff and Johnson (1980), where metaphors are grouped into three types according to the cognitive function they serve. As briefly mentioned earlier, the first of these is *ontological* metaphor, whereby concrete entities and substances provide ontological status to abstract targets such as certain events, activities, emotions, or ideas. An example of this is the metaphor THEORIES ARE BUILDINGS underlying expressions such as "we need to *buttress* the theory".[32] *Personification* is regarded as an especial case of ontological metaphor, whereby abstract concepts and phenomena are regarded in human terms,

e.g. DISEASES ARE ADVERSARIES motivating the expression "cancer is *my enemy*" cited previously. In *structural* metaphor abstract targets are structured in terms of concrete sources, as in ARGUMENT IS WAR (e.g. "Your claims are *indefensible*" or "He *demolished* my argument"), the implicit assumption being that the amount of information mapped is richer than that involved in ontological mappings. A final type is *orientational* metaphor, whereby a concept is given a spatial orientation due to a mapping from an image schema onto a concept, as in HAPPY IS UP (e.g. "My spirits *rose* when I saw her").

The problems with this early classification derive from adopting function as a parameter for distinguishing metaphor types only at a cognitive level, that is, without taking into account their role in actual communication. This partial view may be illustrated by metaphors such as PEOPLE ARE ANIMALS (e.g. "He is *a monkey*") or DANGEROUS IS HOT (e.g. "The strike policy became *a hot potato* for the Government"), whose main role is not to provide an ontological status to target entities but, rather, to highlight some of their properties. Thus, even if these properties may be regarded as being endowed with ontological status, the whole process is essentially attributive. Moreover, such an attribution is only meaningful in communication (where it covers our interpersonal needs) rather than at a conceptual, abstract level. In other words, equating people to animals makes no sense if what is at stake is thought organization, yet it acquires full meaning if we have a communicative need, e.g. insult, evaluate something as negative or positive, and so forth, as would also be the case with image-schematic, orientational metaphors such as RATIONAL IS UP and the reverse EMOTIONAL IS DOWN (e.g. "The discussion *fell to the emotional* level, but I *raised it back up to the rational* plane").

Lakoff and Turner (1989) provide a further refinement of the account in Lakoff and Johnson (1980), re-classifying the metaphors in that earlier work into three main types in accordance with the nature of the domains involved in their respective mappings. The first type is *concept-to-concept* metaphor, and involves the mapping of a concept onto another one, subsuming both ontological and structural metaphor. These conceptual mappings are further classified into two broad classes, the parameter now concerning the degree of generality of the information mapped across domains. Thus, on the one hand we have *generic-level* metaphors which "lack specificity in two respects: they do not have fixed source and target domains, and they do not have fixed lists of entities specified in the mapping" (Lakoff and Turner 1989: 81) as in the expression "Illness *kept* me at home for

a whole week" illustrating EVENTS ARE ACTIONS. On the other hand, we have *specific-level* metaphors (also referred to as *basic* metaphors when they become conventionalized) which specify the domains and entities in the mapping as in the expression "Our relationship *leads* nowhere" illustrating LOVE IS A JOURNEY. Their differences concern the functional needs fulfilled by each type – the parameter of degree of generality being therefore closely linked to the parameter of function in Lakoff and Johnson (1980). We may thus build a sort of functional hierarchy concerning metaphor: you need generic-level metaphors in order to understand specific-level metaphors (e.g. as these are realized in proverbs), whereas specific-level metaphors are used to understand abstract domains. This situation has lead to a view of the generic-level metaphorical schema GENERIC IS SPECIFIC as one of the most important metaphors lying at the basis of many conceptual mappings.

Lakoff and Turner (1989) also introduce a high-level metaphorical schema or hierarchy based in the folk model that they label the GREAT CHAIN OF BEING. This model represents a hierarchy structured from top to bottom according to the attributes and behaviors characterizing each level. In it, human beings occupy the highest position, followed by animals, plants, complex objects, and natural physical things. This metaphorical schema determines the relationships that exist between the different orders of the hierarchy; that is, each level bears the properties attributed to the lower ones, yet also incorporates an additional distinctive feature. As noted by metaphor scholars, this metaphor underlies our understanding of human attributes in terms of corresponding animal attributes as in "He is *a lion*" or "My neighbor is *a rat*" (all of them specific instantiations of the ontological metaphor PEOPLE ARE ANIMALS).

The second broad class of metaphor in Lakoff and Turner's taxonomy concerns *image schema-to-concept* metaphors. These map very general image-schematic structures such as UP-DOWN, IN-OUT or PATH onto concepts such as states, locations, etc., structuring abstract domains like 'being *in* love', and underlying many prepositional uses. Image schema-to-concept metaphors correspond to orientational metaphors in Lakoff and Johnson (1980).

Finally, we find what they call *image-to-image* metaphor since the mapping involves mental images rather than concepts as in "my wife ... whose waist is *an hourglass*" (taken from Breton's poem "Free Union"). Lakoff and Turner's (1989) account draws upon Lakoff's (1987b) earlier discussion, where metaphors of this kind are defined as topological mappings

arising from the perceived similarity between concepts, and differing from conceptual metaphors in a number of ways:

- They map image structure rather than propositional, conceptual knowledge.
- They are not conventionalized and, therefore, not used in everyday reasoning.
- They are not used to understand the abstract in terms of the concrete.
- They are not experientially based and, therefore, lack a basis determining what gets mapped onto what.
- They do not have a stable or systematic linguistic counterpart(s) resulting from them.

In Lakoff and Turner (1989) we find image metaphors described as *ad hoc*, *fleeting* metaphors of such a specific nature that they are not involved in daily reasoning. Rather, they are seen as particularly suited for discourses favoring highly creative, unconventional metaphors susceptible to triggering different readings and interpretations, such as may be found in literary or advertising discourse.

This description of image metaphors is problematic in a number of ways, starting with the characterization of metaphor types without taking into account the different discourse contexts other than literature or advertising where they may play a role or, at least, be less fleeting. In fact, architectural discourse appears to be one of those contexts where the proverbial unconventionality of image metaphors may be questioned, as suggested by their critical presence and role in the textual practices of architects. Another issue concerns the inferential richness attributed to various types of metaphor other than image metaphors. The underlying assumption appears to be that inferential structure is a ready-made information pack that can be discussed at a theoretical level, rather than as something activated by real people when encountering metaphorical language in discourse contexts (the idiosyncrasies of which will, of course, affect the audience's inferential activity). A final misunderstanding of the differences between image and conceptual metaphors is encapsulated in the very terms used to refer to each type. Indeed, it arises from the clear-cut distinction drawn between conceptual and visual knowledge, and hence between classes of metaphor, which may well suggest that only those metaphors labeled as conceptual are cognitively relevant or dramatically different from those involving knowledge *of other sorts*. In this regard, the description of how image

metaphors are used by architects to discuss built space in this book may help redress the characterization of image metaphors here outlined.

Further reworking of the views surveyed so far may be found in Grady (1999), where metaphors are classified along a motivation parameter, defined as "the principles which cause some metaphors to be in the conceptual repertoire and others not to be," which, in experientialist fashion, "must logically be due to either something about the human organism ... or the patterns must arise from something about our experiences, or possibly both" (Grady 1999: 80). He distinguishes between two types of metaphor. On the one hand, what are called *correlation* metaphors, defined as experientially motivated (i.e. directly grounded in aspects of our experience) and involving a "tight correlation between two dimensions of experience –typically with one more directly related to sensory input than the other" (Grady 1999: 84-84). Primary metaphors of the kind of MORE IS UP, DESIRE IS HUNGER, or ORGANISATION IS PHYSICAL [PART-WHOLE] STRUCTURE are included within this group. The second type are called *resemblance* metaphors, and comprises all those cases when two concepts are cognitively linked due to their actual similarities or to the human capacity to impose resemblance between them. Resemblance metaphors include image metaphors, the metaphors relying upon Lakoff and Turner's (1989) GENERIC IS SPECIFIC metaphorical schema, and the metaphorical process underlying expressions such as "Achilles is *a lion.*"

Apart from motivation, both types of metaphor show other differences. Thus, resemblance metaphors usually involve concepts of the same type, they can be bi-directional, and are nearly unconstrained. In contrast, correlation metaphors link concepts of different types, are unidirectional, and are more constrained by the nature of the types of experience motivating them. Given the relevance of this characterization of metaphor types for architectural metaphors, I will return to this topic in Chapter 5 (cf. section 3).

4.2. A proposal for classifying architectural metaphors

Architectural texts yield both clear cases of metaphors concerned with the abstract properties of built artifacts, and clear cases of metaphors informed by visual knowledge (each type responding to the complexity of architects' work, as well as to their idiosyncratic *thinking eye*). However, numerous figurative occurrences appear to be less easy to class as conceptual or image metaphors. For, although both may be crucial for discussing metaphor

in architecture, the clear-cut distinction between visual and conceptual knowledge informing each type is particularly troublesome when examining the figurative data in architectural texts. In fact, these yield numerous cases of figurative instantiations apparently motivated by conceptual metaphor, yet tinted with imagistic overtones as well. Before taking this point further, compare the following examples:

(16) Cognitive linguistics is not of course the same as *cognitive grammar*, which *represents just one of the numerous strands in this loosely woven fabric*. (Langacker 2002: ix)

(17) Constructed from indigenous eucalyptus hardwoods, *this element has*, as Andresen says, "*a warp and weft as if woven from the trees.*" [2LIKEA~1.TXT]

In both passages, "woven" foregrounds the structured quality of the topics discussed in their respective texts, yet the expressions incorporating the term display different degrees of graphic or visual potential. This is closely related to the target in each metaphor (a theory and a building respectively). Thus, of all the possible traits of cloth making which might be alluded to in example 16, the expression appears to be solely concerned with making abstract structure accessible by equating it to physical structure (as discussed in Grady 1997). In other words, understanding the textile analogy does not imply seeing it. In contrast, describing architects' work in terms of weaving in example 17 is more visual, although the combinatory skills of architects appear to be the special focus of attention. However, this graphic bias may be missed if we formalize the metaphors as THEORIES ARE CLOTH and BUILDINGS ARE CLOTH respectively.

Textile metaphors may therefore be used to draw attention to the complex mixture of information conveyed by a large amount of figurative language in architectural texts. Their linguistic instantiations are often used to invoke architects' combinatory skills as reflected in their architectural products while, at the same time, stressing their patterned quality, articulating how such organization may be visually perceived and/or imagined.[33] In fact, diachronic and synchronic approaches to the same linguistic expressions may yield surprisingly different interpretations. The term *fabric* originally referred to the walls, floor, and roof of a building in compliance with the Latin term from which it derives: *fabrica*, actually meaning 'building', 'something made or manufactured'. This term entered the English language *via* French *fabrique* (mid seventeenth century), and its first – and

literal – sense was architectural until the eighteenth century when it acquired its current – and figurative – *textile* sense. Current textile analogies, then, appear to have originated from a literal use of an architectural term, however figurative (that is, non-literal) the equation between buildings and cloth pieces may feel nowadays. Architectural arrangements originally provided the information mapped onto other experiential domains (either concrete or abstract) where the particular combination of elements into a final product called to mind architectural fabric. However, it appears clear that currently the relationship between the two domains has been reversed.

A similar visual focus can be discerned in a number of adjectives apparently portraying buildings as human beings. This is the case with a conventional term in architectural discourse such as *blind* (as in *blind wall* or *blind building*), as well as the adjective "mute" in the following passage:

(18) [The rooms] sit flush with the facade and fold open and back as necessary when the rooms are occupied and used in different ways: *the mute box suddenly speaks of humanity.* [2MONTA~1.TXT]

Here one of the buildings in a university campus is evaluated by means of an expression playing with both personification and visual information. The adjective "mute" appears to suggest a personified view of the building under review (reinforced by its immediate co-text), pointing, at the same time, to characteristics similar to those encapsulated in adjective *blind*, namely, solid, closed to the exterior. However, interpreting the term in the latter sense involves paying attention to the images accompanying the verbal commentary, which help decide that "mute" refers to the building's 'keeping its mouth shut' or lack of openings, rather than to its ability to produce sound. Indeed, the pictorial quality of many figurative expressions in the corpus is not only strengthened by the images in architectural texts, but in certain cases may be missed unless these visuals are paid due attention. This being the case, analysts dealing with architectural metaphor must take into account such graphic data in their identification and classification procedures.

The examples discussed so far suggest that, although the idiosyncrasies of the knowledge projection involved in diverse metaphorical mappings may be discussed in terms of concepts, the formal and contextual aspects intrinsic to their actual instantiation need to be considered if we want to gain some insight into metaphor. Furthermore, in the case of multimodal texts such as those characterizing architectural discourse, classification may

be facilitated by the information provided by the graphics and images in them.

The complex and multidimensional nature of metaphor then makes it necessary to adopt a corresponding multiplicity of parameters in order to classify it (see also Goatly 1997; Cameron 1999a, 1999b; Ruiz de Mendoza 1999). Emphasis should also be placed on describing the different ways in which metaphor's linguistic realization is determined by and reflects the particularities of the discourse context where these appear, rather than on discriminating among metaphor types in cognitive-only terms. Moreover, talking about dimensions involves adjusting our expectations and theoretical concerns to what is actually found in texts, as well as allowing for fuzziness and blurred boundaries between metaphorical cases. It also entails that the dimensions taken into account need to be specified for the particular context under study.

As shown in Table 3 on the next page, my proposal for classifying metaphors in the discourse of architects rests upon the following three basic dimensions:

- The structuring potential of the metaphorical mapping instantiated in a given expression.
- The degree of representationality or graphicness of the metaphorical instantiation.
- The more or less conventional status of metaphorical expressions in the discourse community of architects.

Since metaphorical cases may illustrate diverse degrees of structuring potential, representationality, and conventionality each dimension is discussed in terms of a cline rather than in absolute terms (as indicated by the + / – symbols). Finally, although the three dimensions represent distinct levels of explanation, they are all related.

Table 3. Basic dimensions for classifying architectural metaphors

DIMENSIONS	EXAMPLES	+ / –
STRUCTURING POTENTIAL Projection of partial or complete structure from source onto target according to underlying image-schematic information base	DESIGNING A BUILDING IS MAKING MUSIC DESIGNING A BUILDING IS MAKING CLOTH ARCHITECTURE IS LANGUAGE	+
	A BUILDING IS HYBRID OF EAMES AND KAHN [names of architects]	
	A BUILDING IS A BOX/A TEXT/A PIECE OF CLOTH/A MUSICAL PIECE/A MACHINE	–
REPRESENTATIONALITY Potential of linguistic instantiation to activate representational, graphic information	Language activating clearly geometrical or clearly visual representation (A BUILDING IS A POD, WEDGE, THE CONCORDE)	+
	Some organic, motion, malleability, and textile expressions (*tightly* woven space, *visceral* colour, buildings *crouching* in their sites).	
	Machine, teaching, organic, experiment, language and music expressions (A BUILDING IS A MACHINE/A LESSON/AN EXPERIMENT/A SYMPHONY). Personification.	–
CONVENTIONALITY Conventional quality of linguistic instantiation (entrenched metaphor)	Architectural jargon (building's *bowels*, *wing*, *rib*, *skeleton*).	+
	Novel exploitation of architectural jargon, or use of ad-hoc sources.	–

The greater or lesser structural potential of a given metaphor is determined by the aspects of a metaphorical mapping that may be activated in a given expression in its context of occurrence. Simply put, it depends on the traits regarded as similar between source and target in a given metaphor as these may be inferred from the way it is linguistically realized in a text. For instance, in the positive end of the cline we would have the metaphor DESIGNING A BUILDING IS MAKING CLOTH, which recruits basic information from several elements in the logic of its underlying PART-WHOLE image

schema and hence exhibits a wide structuring scope in metaphorical terms. This is the case of example "Fuksas *weaves off* a surprising variety of spaces" previously introduced, which draws attention to both the architect's role (portrayed as a weaver) and the quality of the built artifact (implicitly compared to a piece of cloth). In contrast, metaphors such as A BUILDING IS A MACHINE or A BUILDING IS A ZEPPELIN involve the mapping of a smaller set of traits, i.e. recruit poorer knowledge from their underlying image schemas or metaphorical sources. Accordingly, their linguistic realizations only highlight some aspects of the topics thus articulated. For instance, the reference to a building as a *pod* or a *wedge* may be explained as motivated by a metaphorical mapping projecting partial information across domains, i.e. the shapes of the entities involved. The image-schematic motivation of the architectural metaphors found in the corpus will be discussed in detail in Chapter 5 (cf. section 3).

At the same time, metaphors may illustrate different degrees of graphic or visual potential in compliance with a number of linguistic and contextual factors, as the foregoing discussion has attempted to demonstrate. Finally, figurative expressions may exhibit different degrees of conventionality within the specific discourse community using them, although fairly conventional figurative language may also appear more innovative as a consequence of how it appears textually realized. Thus, although expressions with verb *weave* illustrate in general a fairly conventional way of talking about building design, the verb in a passage describing a timber screen as having "a warp and weft *as if woven* from the trees" feels more innovative than otherwise. Similarly, the term "wing" is conventionally used to refer to long volumes within a building and is seldom felt as figurative. However, the same term in the expression "*A pair of curved glazed wings extend to embrace* the neighbourhood" was unanimously regarded as metaphorical by the four architects asked to interpret it.

In sum, although the characterization of metaphorical instances sketched so far is only applicable to architectural discourse, it may be used to underline the importance of paying attention to contextual and cultural factors in metaphor research in general. Here it should be borne in mind that whereas for an architect certain metaphorical expressions may feel more or less conventional or encapsulate both visual and non-visual information, this need not be the case for somebody outside the community. Thus, whereas architects do not consider the qualification or reference to a given building as a *box* a metaphor, my first reaction, as a non-specialist, was that it was a clear metaphorical case. Also, when asked to explain the term, the archi-

tects consulted pointed to its visual quality, whereas for me it foregrounded the role of buildings as huge containers rather than a particular layout or typology. Scholars attempting to explore metaphor in discourse must therefore situate their description within a given cultural context, and approach metaphor classification along parameters reflecting its idiosyncrasy.

5. Exploring metaphorical language in reviews

After having decided what counts as a metaphor and what does not, a set of research hypotheses needs to be formulated together with an analytical procedure for confirming or disregarding them. Given the assumption in genre research that audience and purpose issues converge in the prototypical organization of texts, locating metaphorical language in their rhetorical structure may help us explore its contribution to fulfilling generic goals. In my view, one of the most fruitful insights of genre research into professional communication is the provision of a useful analytical procedure attempting to describe how topic, goal, and audience factors conflate in the prototypical rhetorical organization or structure of genres (Dudley-Evans 1987; Swales 1990; Bhatia 1993; Devitt 1993; Flowerdew 1993; Berkenkotter and Huckin 1995).[34]

In short, if, as genre scholars claim, communicative purposes are textually realized in a number of recognizable functional units (i.e., rhetorical moves and steps), locating metaphorical expressions within the texts' rhetorical structure may shed some light on the ideational and interpersonal aspects involved as well as on the role of such expressions in discourse management. This, in turn, implies considering whether (a) metaphorical expressions tend to cluster at given textual loci, (b) this occurs in a patterned way, and (c) metaphorical language appears explicitly signaled as such by means of orthographic, lexical or rhetorical devices (e.g. use of inverted commas, lexical markers such as *metaphorically* or topical thematization strategies). The whole procedure, then, leads to examining how metaphorical language is used in combination with any other discourse strategies to suit the rhetorical needs of the genre.

Just as it was assumed that metaphor's location and role would be related, the figurative expressions in the corpus focusing on description were expected to occur at clearly descriptive loci, and the same should happen with expressions driven by evaluative concerns. In order to ease the location of such expressions in the corpus, I divided the reviews into their four

structural parts: Introduction, Description, Closing Evaluation, and Captions (the latter also showing the recurrent presence of metaphorical expressions). This division facilitated the spotting of the expressions within the rhetorical structure of the texts, which was done with the help of a concordancer.

This computing tool also proved very helpful for quantifying the occurrence of figurative language. For, although I was mainly concerned with providing a qualitative description of how architects use metaphor, quantification proved a good source of insight into two aspects of that use. On the one hand, the recurrent realization of visually driven or image metaphors in recognizable patterns suggested their conventionality in contrast with prevailing views of them as highly ad-hoc cases of metaphorical mappings. On the other hand, quantification helped justify the rhetorical import of metaphor in compliance with genre activity in contrast with a view of metaphor as subject to personal authorial preferences and choices. Nevertheless, numerical importance does not necessarily substantiate functional importance. A case in point is that of expressions motivated by musical or textile metaphors which, though less frequent than expressions drawing upon biology, were found to play an important structural role in many of the reviews in which they occur.

The functional distinction between descriptive and evaluative uses of figurative language was adopted in order to study how it may contribute to accomplishing generic goals, but did not imply a clear-cut distinction between these communicative purposes, nor did it entail viewing metaphorical language as the product of conscious, deliberate use by reviewers. Indeed, the recurrent presence of figurative expressions at given structural loci of the reviews may simply illustrate a conventional way of doing things through genre, where the patterned use of rhetorical devices of all sorts (metaphorical or otherwise) may be explained as resulting from repeated practice.[35] However, the way metaphorical language occurs in reviews also suggests that it may be purposefully exploited for rhetorical reasons at certain critical loci, as will be discussed in Chapter 7.

Finally, the distinction between the descriptive and evaluative roles of metaphorical language needs some commentary. In fact, although the intrinsically evaluative nature of the genre made me pay special attention to metaphor's contribution to the assessment of buildings, distinguishing clearly descriptive metaphorical expressions from clearly evaluative ones proved a difficult task, since choosing a particular expression from any linguistic repertoire often entails conscious or unconscious evaluation. In

other words, evaluation is intrinsic to lexis and patterns that clearly encode the addresser's stance or subjective views towards what is discussed in texts (consider, for instance, clearly evaluative terms such as *important*, *problem* or *interestingly*), and also plays a role in discourse organization (Labov 1972; Winter 1982; Hoey 1983). This choice points to the importance of distinguishing between evaluation as meaning and evaluation as textual function. Together with these two functions or levels of evaluation, in Hunston and Thompson (2000: 8)[36] we find it defined as also encompassing the relationships established between writers and readers in texts: "The second function of evaluation is to build and maintain relations between writer and reader. This has been studied in relation to three main areas: manipulation, hedging, and politeness. In each of these areas, the writer can be said to be exploiting the resources of evaluation to build a particular kind of relationship with the reader."

The research summarized here starts from the all-encompassing views on evaluation as covering the three functions outlined above, as identifiable in various lexical, grammatical, and textual aspects of written communication. Nevertheless, my use of the term in this book is restricted to the former two. These are referred to as *intrinsic evaluation* meaning the set of subjective judgments and views lexically indexed in texts, and *structural evaluation* concerning the explicitly evaluative sections, moves, and steps in the rhetorical structure of the genre. The interpersonal dimension of evaluation is here referred to as *authorial positioning*, and covers the notions of text averral and attribution briefly introduced earlier in this chapter, as well as the related hedging strategies followed by authors in the genre. These three dimensions of evaluation are exemplified in the following passages:

(19) Here, the green glass wall [the rear facade of a café] becomes transparent and houses overlapping diagonal sheets of glass, intended to create plays of light and reflection. *An aviary without birds or a fish tank without fish*: one is forced to look at a detritus of bogong moths, palm leaves, cigarette packets and grime. [2CHIFLEY.TXT]

(20) Corridors are enclosed on the garden side by a glass skin, so that *the garden elevations are transformed into huge fish tanks*, animated by the bursts of colour and the daily comings and goings of residents. [2PARIS.TXT]

(21) Hardy let *the sawtooth profile* and translucent roof of this parking shelter (*which he likens to "the tail on a kite"*) stand in contrast to the plaza's enclosed structures. [2RAINBOW.TXT]

In passage 19 the images "an aviary without birds or a fish tank without fish" anaphorically refer to a glass wall, further describing and evaluating its external appearance in negative terms as inferred from the post-modification of "aviary" and "fish tank": both are useless if empty, and they reveal the unsightly views described in the following text. The description of corridors as "huge fish tanks" in example 20 also has an evaluative flavor in the sense that it encapsulates the reviewer's personal perception of a glass enclosure as resembling or reminding him/her of a fish tank, but the reviewer's appraisal is less salient than that of passage 19. Likewise, the architect's comparison of a building component to "the tail of a kite" in example 21 is *intrinsically* evaluative, since it involves his personal, subjective appreciation of a particular appearance. The reviewer also explicitly attributes the expression to the architect, thus apparently distancing himself from the assessment thus conveyed – even if the architect's image may well suit the reviewer's previous interpretation of the roof's profile as looking like a "sawtooth".

The three examples have been extracted from the Description part of their respective reviews, yet may be discussed as representing different degrees of functional relevance. Thus, both examples 19 and 21 illustrate Move 4 (Highlighting parts of the building), which is devoted to providing a focused description *and* evaluation of noteworthy building parts or aspects (here a café in a building complex and a roof respectively). In turn, passage 20 realizes Move 2 (Outlining the general organization/overall plan of the building), which is an essentially descriptive section. In this regard, although all three interpret a building, the evaluation in 19 and 21 fulfils the textual emphasis on appraisal (i.e., illustrates structural evaluation). In contrast, example 20 encapsulates the author's subjective perception of the building under focus, that is, is intrinsically evaluative, yet fulfils a descriptive role. The three passages also show different degrees of authorial commitment and, thus, whereas 19 and 20 may be seen as cases of text averral, passage 21 illustrates text attribution. Nevertheless, both strategies are often combined in reviews as part of the hedging strategies followed by authors in the genre, as will be seen in Chapter 7.

Bearing all these points in mind, all the metaphorical uses clearly exemplifying architectural jargon were regarded as fulfilling an informative,

descriptive function (e.g. reference to parts of a building as its *skeleton*, *rib(s)*, or *bowels*). On the other hand, all those cases involving obviously cultural sources were seen as intrinsically evaluative because of the values and judgments inherent within them. The latter include metaphorical expressions incorporating the names of famous architects, like the qualification of a building as *a rational, Miesian box*, or cases involving film sources, such as the appraisal of a house as being *like Anthony Perkins' mother's house in Psycho*. The metaphorical instances that did not clearly fit into either group were analyzed and classified in relation to their textual occurrence, being assigned to each category taking into account the descriptive and evaluative goals of the genre.

However, any such classification cannot be made before examining the role of metaphor in articulating the worldview of the discipline. This is the subject of Chapter 5.

Chapter 5
Metaphorical language and its underlying schemas in architectural assessment

> The necessity of breaking typicality conditions – or in other words, the inevitability of metaphor – is so high in some semantic fields that one cannot communicate without it. Music and art cannot be discussed intelligently without words such as *austere, balanced, charming, complex, empty, flamboyant, forceful, graceful, insipid, majestic, rough, soft, sweet, warm* – words which are also used for the description of wine. Indeed, if one were restricted to only a prototypical use of words, wine would be undiscussable. (Aitchison 1987/2003: 164)

Architectural practice must reconcile all aspects of spatial complexity, starting with mentally visualizing (i.e. *imagining*) how space may be enclosed and arranged in order to provide its future users with both behavioral and sensual experiences, and finishing with endowing such an arrangement with a pleasant external appearance. Given this complexity of the craft of architects, the convergence of diverse metaphors in their intellectual and rhetorical endeavors is not surprising. For, although metaphor is a particularly useful device for understanding and discussing (indeed, foregrounding) certain properties of the entities or concepts involved, other properties are always left out of the picture in the process. The co-instantiation of diverse metaphorical expressions in architectural discourse may, therefore, be broadly seen as compensating for the somewhat fragmentary glimpses provided by single metaphors.

The figurative repertoire of architects draws upon diverse experiential domains. Among these, the natural sciences, linguistic description, and spatial mechanics have already been discussed as classic source domains in architectural metaphors. Other metaphors come from such different experiences as cloth making, music, or experimentation. The analysis of the figurative data in the corpus, then, started by counting the instances of metaphor in building reviews (i.e., the number of times a given figurative term or token occurred). This figurative dataset comprised 1,972 instances, which were further sorted according to the domains providing the sources for the metaphors. Table 4 shows the number of instances per domain, and the frequency of occurrence of metaphorical sets within the corpus.

Table 4. Frequency of occurrence of metaphor realizations

Metaphors	Number of instances	% of occurrence in corpus
Organic metaphors	514	26.0%
Motion metaphors	416	21.1%
Textile metaphors	160	8.1%
Malleability metaphors	133	6.7%
Language metaphors	128	6.5%
Machine metaphors	78	3.5%
Experiment metaphors	70	3.5%
Music metaphors	45	2.3%
Other metaphors[37]	428	21.7%
Total	**1,972**	**100.0%**

At this point, it should be borne in mind that the term *building* designates both a tangible artifact prototypically consisting of a roof and walls, and the process and/or business of making it. Likewise, among the figurative sets in this table some appear to be particularly concerned with describing the processes undergone by architects to achieve particular design solutions. These metaphors usually involve the projection of a rich set of elements across spaces, which allows for structuring the building practice in terms of seemingly related practices (e.g. ARCHITECTURAL PRACTICE IS CLOTH-MAKING). In this sense, many such mappings correspond to the structural metaphors accounted for in the Lakoffian literature. Other metaphors, in turn, inform the language whereby architects refer to and qualify the products of their craft. Some of these are ontological metaphors, many of which are subsumed by the structural mappings referred to above (for instance, the metaphor BUILDINGS ARE TEXTS is implicit in the structural metaphor ARCHITECTURE IS LANGUAGE). Others result from visually informed mappings and are, therefore, instances of image metaphor (e.g. A BUILDING IS A TADPOLE).

The following sections are devoted to outlining the aspects of architectural processes and products highlighted by the diverse metaphors linguistically instantiated in the corpus.

1. Turning space into a building: Process-focused metaphors

Several metaphors in architectural texts draw attention to the combinatory procedures involved in building design. Yet, although all of them render architects' work as *shaping* space matter into an artifact with a distinctive form and function, each metaphorical frame suggests a different view of space, from the more specific and tangible to the more abstract.

1.1. Manipulating concrete, physical matter

The metaphorical schemas and language that portray architectural practice as a manipulation of physical matter may be further grouped into three distinct sets in compliance with how concrete or abstract the sources involved are. The metaphors are described under the headings of *textile* metaphors, *malleability* metaphors, and *experiment* metaphors.

1.1.1. Weaving space: Textile metaphors

One of the metaphorical sets in the corpus that renders a view of space as concrete, physical matter draws upon the domain of textiles and cloth making, as shown in the following passages:

(1) The architect's interpretation of the spirit of the place is restrained and lyrical, and *the delicacy with which he has stitched the new to the old* recalls Foster's work at the Royal Academy (AR December 1991). [3PASTO~1.TXT]

(2) The architect *cut a hole* measuring 80 feet wide by 100 feet high by 71 feet long from the building's center, *floated a concrete box inside it, and wove the building back through it.* [2CREAT~1.TXT]

(3) The masterstroke is the light and elegant bridge over the museum forecourt. ... It is, says Couvelas, *'a thread darning the hole caused by the excavation,'* and, *in the darning, the pattern of the old weave of the city has been brought to the surface to take part in the modern tapestry.* [3MUSEU~1.TXT]

The first two examples above focus on architects' intervention upon buildings, describing them in different degrees of specificity: from the vaguer "stitching" of new architectural spaces to older, already-existing ones in 1, to the more specific "cutting-and-weaving" processes in 2. At the same time, by referring to architects' doings in such terms, the expressions also implicitly bring to mind a view of space as *cloth* or *threads* susceptible to being woven into different patterns. This is explicitly conveyed in example 3, extracted from a review suggestively titled "Tapestry Weaving", and showing different realizations of the textile schema under discussion. Here a bridge is presented as a "thread darning" (i.e. as 'traversing') the literal hole caused by the archaeological excavation which the museum under review attempts to protect. This hole reveals the remains of the older city's plan, referred to as "the old weave of the city", and is set in contrast with the plan of the new town or "modern tapestry".

As illustrated in example 3, cities are also often discussed in textile terms according to the metaphor CITIES ARE CLOTH. The examples below further illustrate how the metaphor appears instantiated in the corpus:

(4) [The theatre] is a bold and conspicuously contemporary addition to the *urban fabric*. [THEATR~1.TXT]

(5) Green space is a rare commodity in this *tightly-knit* urban neighbourhood [2PARIS.TXT]

If buildings and cities are portrayed as cloth, their different elements and parts may also be damaged and repaired accordingly (as is suggested by "darning" in example 3), as well as manipulated in various ways:

(6) The ground floor is given over to shops and cafés, *threaded through with a glazed street*, to encourage general daily use as a public concourse. [2MANCH~1.TXT]

The textile domain also supplies architects with some of the technical terms they use for labeling some constructive elements, especially the outer layers of buildings. A case in point is *clad*, used for referring to both the covering of a structural part (*cladding*) and the action of doing so, the term bringing to mind *clothing* rather than *cloth*:

(7) Externally *the building is clad* in Cornish granite and Jura limestone, both materials which age gracefully. [2LONGMAN.TXT]

Together with *cladding*, we also find *jacketing*, *coating*, *sheath*, *sheathing*, *revetment* or *sheeting*. Such textile-related terms may be further exploited in other architectural texts for different communicative purposes. For instance, in the following passage (partly quoted in Chapter 1) we see how a textile analogy is developed in order to explain how buildings may be protected against water:

(8) *The* many *layers of a building's protective skin are much like clothing*. ... These elements are defined and quantified by the building code, and, according to the degree of danger or discomfort, are remedied by a particular surface *wrapping*. *The structural skeleton is clothed* to suit the anticipated conditions. ... **Water Protection** The waterproofing consists of some combination of coating the surfaces with a liquid, and *wrapping the surfaces with a sheeting material*. Essentially, this process creates *a rubberized membrane like a rain boot*, continuously sealed around the footings yet stopping at a level above the ground where the water is not a threat. As for water from the sky, the walls and roof must protect the inside body of space from becoming wet. The code provides a list of weather coverings along with their required thicknesses. These skins ... are specified in order to keep out rain and snow. Even though these materials consist of small individual pieces, by overlapping, *seaming*, and sealing, they can be forced to behave as one membrane. ... *Just as an umbrella or rain hood is designed to repel water, so too is the upper casing of a building*. As an extra protection against moisture, the interior spaces of walls and roofs are given a vapor barrier. This plastic material (usually) keeps air borne moisture from entering and condensing in the interior. *Like a raincoat*, it provides a continuous wrapping around the body/space, and completes the protection between ground water and sky water. *A building protects itself from water by wearing three garments*. A vapor barrier lining creates *a rain-coat* around all extremities and appendages of the space, *a rubberlike membrane provides a boot around the foot of the structure, and a variety of materials are stitched together to make an umbrella of protection around the top*. Whether *these garment-like layers* begin as small units or as *sheeting* materials, their end results must take the form of homogenous *coatings*. (Centuori, 1999)

In turn, example 9 illustrates a more innovative (and playful) way of referring to a building's cladding. Here a personified building is described as

wearing a "metal jacket", an expression that also shows an interesting interaction of metaphor and intertextual allusions to Stanley Kubrick's film *Full Metal Jacket*:

(9) *IMAX is stretching beyond its full metal jacket* and breathing life into Darling Harbour. [3IMAX.TXT]

Other textile-motivated expressions suggest the related metaphor COLOURS ARE CLOTH/CLOTHING. This is usually instantiated by verb *wrap*, as exemplified below:

(10) It [the building] is *wrapped in tones of wheat and dirt brown* baked onto the Colorbond metal *cladding*. [CONTOU~1.TXT]
(11) The space is enclosed by *two walls* of the same height which meet at right angles and are *wrapped in white* for a vaguely public feel. [2RED.TXT]

The passages seen so far point to another implication of textile metaphors: the equation of coverings to diverse pieces of clothing may also suggest a view of buildings as the people wearing those. This is evoked by verbs such as *dress*, *strip*, or, indeed, *wear*, all prototypically associated with human beings. This personification of buildings is often rendered by other figurative expressions co-occurring with the textile ones:

(12) The old barracks, for instance, became dorms; the airport's squat, art deco control tower *took on new life* as a classroom building; and *an old hangar, stripped down to its steel skeleton*, was turned into a hollow canopy shielding a garden. [LIGHTW~1.TXT]
(13) De Portzamparc *dressed the tower's faceted facade in a sexy ensemble of green and white glass*. [225FLO~1.TXT]

Finally, although the figurative expressions drawing upon the domain of textiles and cloth making may convey both abstract and visual information, their major concern appears to be the former. In other words, they are used to highlight the procedural and functional aspects involved in the making of buildings, as well as the elements used in so doing.

Nevertheless, the corpus yields examples that appear to be exclusively concerned with visual information, the metaphorical transfer relying on the physical resemblance of the entities thus related. This is the case of "curtain

wall" in example 14 below, which is a common term in architectural discourse for referring to a type of wall because of its resemblance to a curtain (cf. also section 1 in Chapter 6). In turn, passages 15 and 16 use more innovative terms to refer to structural elements:

(14) Tables in the reading area along the north facade line *a glass curtain wall* that overlooks the sloped reading garden. [2TIGHT~1.TXT]

(15) Atop its lumaquella base are bands of stark stone piers that support the exposed concrete slabs of balconies tucked behind *the shifting scrim of columns*. [2CHURC~1.TXT]

(16) The generating concept has been *to swirl* (within the limits of technology) *two floaty 'scarves' of glass around a conventional concrete structure* faced – where it is exposed at the building corners – with substantial panels of sand-coloured terracotta. [2PIANO.TXT]

In sum, architects draw frequently upon the domain of textiles to describe their practice and name several of the elements involved. This metaphorical set may be broadly formalized as ARCHITECTURAL PRACTICE IS CLOTH-MAKING, which, in turn, may be further decomposed in several, more specific metaphors, like ARCHITECTS ARE CLOTH MAKERS or WEAVERS, BUILDINGS/CITIES ARE CLOTH, and BUILDING ELEMENTS or COLOURS ARE PIECES OF CLOTH/CLOTHING.

1.1.2. Shaping space: Malleability metaphors

Metaphorical language also renders buildings as plastic artifacts that can be modelled into different shapes. This illustrates the influence that visual arts such as painting and, especially, sculpture have exerted upon architecture from the Italian Renaissance onwards, and, particularly, in the 1920s and 1930s. Buildings became the exponents of views on architectural form as *the* one and only ornament required, as illustrated in passage 17:

(17) Achieved by advanced computer techniques, *it* [the building] *is pure sculpture*. [3GENET~1.TXT]

This plastic view of buildings is explicitly conveyed by adjectives such as *malleable*, *plastic*, and *flexible*, as shown in the following examples:

(18) Instead [the house] is about *a plastic architecture that makes complicated shapes*, contains complex space and harbours a rich lineage of modernisms [WALL.TXT]
(19) The building is in two parts. In what the architects call the 'beam' (*a 165m long, 22m high slab of flexible space*), the TIC and the DC are at each end. [2TOTHE~1.TXT]

Although passages like these highlight the quality of the architectural achievement, most expressions instantiating the metaphor BUILDINGS ARE MALLEABLE ARTEFACTS are mainly concerned with process, rather than product. They draw attention to the ways in which architects manipulate both *raw* as well as built space in order to achieve a body of work – in a sense, as if they were sculptors. However, in contrast with the textile metaphors seen previously (which specify the nature of the material thus manipulated), malleability expressions suggest a view of space as a tangible, yet non-specific matter which architects may shape or mould as if it were clay, stone or wood.

This view of space is mainly instantiated by verbs. These include verbs that refer to processes of perforating (*hollow*, *gouge*, *carve*, *skew*) or cutting (*incise*, *bisect*, *chamfer*, *cleft*, *slice*), as well as processes involving the exertion of some force on architectural artifacts and elements in order to displace or reshape them (*squeeze*, *push*, *pinch*). The following extracts illustrate how such verbs are used for describing architects' manipulation of space:

(20) Studio Works reaffirmed the central-hall organization, but *hollowed out* a light-filled transverse space across the linear structure on each floor of the three-story building (which includes a half-basement). [2MONTE~1.TXT]
(21) *Gouged into the heart of the building* is a three-floor atrium. Blue bands ... [2COLOR.TXT]
(22) As if *squeezing 25 floors* of corporate offices and retail space weren't difficult enough *on this tiny plot*, de Portzamparc had to face the stringent, if somewhat vague, setback requirements that created the familiar stepped profile of New York City's most famous buildings [225FLO~1.TXT]
(23) Instead of *stacking* the building blocks wedding cake-style, de Portzamparc *chamfered* them, *pinched* them, *skewed* them, and *sloped* them, discovering a few tricks along the way. [225FLO~1.TXT]

Verbs such as *break*, *fracture*, *crunch*, and *crack* play a similar role in architectural texts, even if this portrayal may seem paradoxical given that one of the requisites of buildings is, precisely, stability and durability:

(24) Woodard strategically *cracks smooth wall surfaces open* to reveal, like geodes, painted, tiled, or wood-paneled services such as fireplace and cabinets. [CPPAINT.TXT]

(25) *By breaking the building into three pavilions* linked by semi-outdoor decks, the architects brought daylight into key interior spaces. [LIKEAG~1.TXT]

Finally, spatial elements may also be referred to by means of nouns derived from these verbs, all of them instantiating image metaphors. Indeed, the diverse openings in buildings, and even whole spatial volumes, are often called *cuts*, *gashes*, *incisions*, *slashes*, *slices*, *slits*, *slivers* or *slots*. These belong to the malleability schema described here, although they refer to the products rather than the processes involved in building construction:

(26) *A couple of vertical incisions in the* tight green pre-oxidised copper *skin* signal entrance. [2MONTA~1.TXT]

(27) *A long slash of glazing* provides glimpses to the interior inviting further investigation. [2DINING.TXT]

(28) On the north-facing entrance facade (left), for instance, *a wide slot* faced with concrete-blocks leads to the building's lobby. [2LASER~1.TXT]

(29) It also makes visible the experiments in sound and form that are embedded in the ad hoc, *slice-and-dice urbanism* the Smiths and Moss are creating in Culver City. [3GLASS~1.TXT]

In example 26, the external appearance of the entrance to a building is referred to as "a couple of vertical incisions". This external appearance is also the focus of examples 27 and 28, where a window and some sort of corridor or passage are referred to as a "long slash of glazing" and a "wide slot" respectively. Such expressions convey visual rather than procedural information: "incisions", "slash" and "slot" foreground certain outstanding physical traits of the architectural entities thus labeled, and this, in turn, is often reinforced by the pre-modifiers co-occurring with such terms (e.g. "vertical" and "long" in 26 and 27). Finally, in example 29 we find "slice-and-dice" used to qualify the kind of work typical of a given architectural firm, the whole passage not only drawing upon the malleability schema

described in this section, but also pointing to the experimental quality of their work.

1.1.3. Experimenting with space

Views of architectural practice as an experimental activity are also the product of the aesthetic revolution of the 1920s-30s and the influence of painting upon all arts, architecture included. Technical development and, particularly, the emergence and/or refinement of construction materials enabled architects to experiment with spatial forms in new ways, all of which prompted the emergence of a critical discourse reflecting this change of attitude. The following passage shows that these views are still operative:

(30) For Sandy Wilson it [the British Library] has been something of a millstone, and he might have preferred to spend the effort on 10 lesser works, with more chance for *development, experiment and exploration.* [SPEAKI~1.TXT]

Overall, experiment metaphors foreground the intellectual dimension of architectural practice, rather than its manual side. Accordingly, the figurative language thus informed conveys a view of space less physical or tangible than the metaphorical expressions seen so far. The various instantiations of DESIGNING A BUILDING IS EXPERIMENTING stress different aspects involved in architectural experimentation. For instance, nouns like *experiment*, *exploration* and *research* refer to the previous or ongoing design stages as well as to the building itself – the latter two drawing attention to the intellectual process previous to the actual experiment. On the other hand, *transformation* and *blend* usually refer to the results of such experiments. This use of *blend* is exemplified in example 31, although, in this case, the expression appears to be concerned with both process and product:

(31) The architect then *splices that blend into the tradition of the steel house*, which had evolved before the concept of lofts rooted in contemporary life. [2CUSTOM.TXT]

The combinatory process involved in building design and construction is addressed by verbs such as *combine*, *fuse*, and *mix*, whereas *turn into* or *transform* draw attention to the transforming power of architecture as a discipline:

(32) Similarly, existing *slate and stone walls are fused with the glass partitions of the architecture.* [TRAWSF~1.TXT]
(33) For almost two decades, Moss and the Smiths have been *transforming warehouses* in Culver City's Hayden Tract, once home to many defense-related industries, *into the workshop for Los Angeles' visual culture.* [GLASSF~1.TXT]

A few metaphorical instantiations also present buildings as the very agents of this process of transformation and, therefore, as people – as was also the case of some textile expressions:

(34) Unlike these conventional forms, however, which are replicated throughout the region regardless of site conditions, *Rosebery House engages the landscape more directly by fusing the tectonic with the organic.* [3LIKEA~1.TXT]

The figurative language thus motivated does not generally draw upon a particular field of experimentation. This does not mean, however, that certain expressions may well point to a specific domain as providing the sources for the metaphors:

(35) Eric Owen Moss, *the architectural alchemist* who turns base buildings into sites of revelation, *has conducted another brilliant experiment* in Culver City, California. [GLASSF~1.TXT]
(36) The Greenwich Peninsula was chosen over a site in Birmingham because of its symbolic associations ... because the area was in dire need of reconstruction and *the millennium programme provided an opportune catalyst.* [MAGICB~1.TXT]
(37) Overscaled but delicate, provocative yet serene, *a concoction of opposites* – this urbane container for books and media both celebrates and rejects its place in the matrix of time, space, and commercial culture. [3TIGHT~1.TXT]
(38) *This building*, like the wine it houses, *is a refined blend of science and art.* [3STEEL.TXT]

The first two passages point to chemistry as the source domain underlying in the metaphorical rendering of architectural practice, as suggested by the reference to the architect as an "alchemist" (example 35), and by using "catalyst" to indicate the intervention of diverse factors accelerating or initiating the *experiment* under review (example 36). In turn, examples 37 and 38 point to cooking and wine making respectively as the source domains in the metaphors – two activities which, in fact, are often discussed by means of language similar to that used by chemists themselves.

1.2. Combining abstract, non-physical matter

Building design is also often described by means of figurative expressions drawing upon the domains of language and music. The resulting metaphors, however, are less physically grounded than figurative descriptions of architects as manipulating textile or plastic matter.

1.2.1. ARCHITECTURE IS LANGUAGE

As briefly mentioned in Chapter 2, linguistic description has often supplied architects with the means for discussing their craft. The suitability of language metaphors is largely due to the broad scope of the topics they help articulate. In the first place, the metaphorical schema ARCHITECTURE IS LANGUAGE, and usually ARCHITECTURE IS WRITTEN COMMUNICATION, is often used for referring to the process prior to building design, especially the interaction between architects and their clients, as illustrated in the following example:

(39) The architecture arises from *a generous reading of the client's requirements* and an extreme engagement with context and program. [3MACHI~1.TXT]

Language metaphors also provide the means to explain the interaction between the visual and verbal representations of buildings throughout the design process. As pointed out earlier, this is often seen as a recursive process of translating images into words and *vice versa*, as exemplified in examples 40 and 41 on the next page:

(40) At La Mensa and at Verona, he [architect] demonstrates that he has the capacity to *comprehend and translate into built expression all of the rich possibilities of the brief.* [3DINING.TXT]

(41) [Architect explains] "I was interested in *abstractly translating the narrow, twisting passage and plazas of Klagenfurt into the building.*" [2HIDDE~1.TXT]

Linguistic description also provides metaphorical sources for referring to the elements and conventions used and followed by architects when designing a building, as suggested by terms such as *vocabulary*, *rhetoric*, *imagery* or *syntax*:

(42) The question is particularly thorny in the current postmodern era, in which *building imagery* (be it classical or modernist) dominates our definition of architecture, and "functionalism" (a term Aalto bandied about generously) has virtually dropped from *the contemporary lexicon.* [BACKTO~1.TXT]

(43) Mayne has always articulated the architectural parts, but at the Hypo Bank *the parts are not locked into a binding orthogonal syntax.* Instead, they move within a field of agitation generated by the intersection of separate systems. [2HIDDE~1.TXT]

(44) Like a Renaissance architect, *Holl studies architecture's rhetoric*; he uses typological conventions and elements to create new meanings. In the Cranbrook science center, Holl begins with *the basic vocabulary of foursquare enclosures* infiltrated by oblique angles at facade openings. [2BETWEEN.TXT]

Accordingly, buildings, and even whole urban contexts, are often presented as written or oral texts which can be manipulated in various ways. The following examples show how the metaphors BUILDINGS ARE TEXTS and ARCHITECTS ARE WRITERS/SPEAKERS are instantiated in architectural texts:

(45) With an initial budget of $15 per square foot (later expanded to $25), necessity demanded invention. *First came the edit.* The architect removed the hung ceilings and partitions ... preserving only those walls that could be factored into the new layout. [2MONTE~1.TXT]

(46) The siting of the pergola ... *The pergola functions as a summary of the building*, condensing the *themes* of massing, colour, verticality and horizontality. [2RED.TXT]

(47) Concerned both *to make the spaces legible* and to echo the grandeur of the humanities side, Wilson pointed out the possibility of a three-storey void along the west side, allowing clerestory light to flood in, with visible stairs to upper terraces. [2SPEAK~1.TXT]

(48) [The architect] spent many summer nights on this property, in just such a shed, and *his love of the type is written all over the new house. It's a shame not everyone reads it the same way.* [3STUDIO.TXT]

Different architects also *speak* in their own idiosyncratic way, that is, they draw upon particular architectural styles or trends when designing a building, sometimes dutifully following them and others reinterpreting them to suit their own concerns. The figurative terms used to refer to such styles and trends show different degrees of specificity: from the vaguest *language* to the more concrete *idiom*, *vernacular* or *braille*, as exemplified below:

(49) While *the landscape is abstracted to an implicit motif*, the expression of the coloured metal cladding, with its sensible cover strip detailing, has definite links to *the light industrial language often found on the fringes of rural towns and*, more specifically, *in the adjacent aircraft hangars*. [2CONTO~1.TXT]

(50) Given *the largely 50s and 60s idiom of many nearby cottages*, it is appropriate that this work should draw on the influence of modernist west coast USA architects where aspirations of lifestyle and climatic conditions coincide. [CUTS.TXT]

(51) RUSTIC REGIONALISM A new county library in Wyoming *draws on the rustic, vernacular style of the regional architecture*. [RUSTIC~1.TXT]

(52) The Möbius strip ... makes the sequence of spaces intriguing – impossible to predict and difficult to grasp. *Eluding easy understanding, Van Berkel & Bos's design works as a piece of environmental braille*, with light, textures, and shifting planes that cue changing interpretations of its form. [2INFIN~1.TXT]

Finally, although language-derived metaphors generally focus on abstract rather than visual knowledge, a few examples in the corpus are particularly concerned with what the building under review looks like – i.e., instantiate image metaphors, as in passages 53 and 54 on the next page:

(53) Approaching the building at night, *the restaurant reads as a luminous band across the facade*; the silhouettes of diners black against the bright interior. [2DINING.TXT]

(54) *The architect likens the building to an open book, the five pages of which* – the concrete fins – represent significant events in the history of Duisburg's Jewish population. [OUTOFT~1.TXT]

Nevertheless, such cases are rare in the corpus, the norm being to find language metaphors conveying the kind of abstract information illustrated in previous examples.

1.2.2. ARCHITECTURE IS MUSIC

Musical composition is another classical domain in metaphors dealing with building design. The importance of music metaphors in the corpus is, however, qualitative rather than quantitative. Although less frequent than others in the corpus, they inform one of the most conventional terms in architectural discourse, *rhythm*, and their different instantiations often occur at crucial points of the rhetorical structure of the reviews.

Musical expressions evoke the metaphorical schema ARCHITECTURAL PRACTICE IS MUSICAL PRACTICE, which may be further decomposed into more specific, ontological metaphors highlighting particular aspects of architects' work. For instance, the verbs *choreograph* and *orchestrate* refer to the architects' job of arranging spatial volumes and elements (presenting him/her as a CHOREOGRAPHER or a CONDUCTOR) and, at the same time, indirectly portray buildings as MUSICAL PIECES:

(55) *De Portzampac orchestrated a sweeping entry promenade* from elevators that open onto an elliptical mezzanine, down a curving stair. [CP25FL~1.TXT]

The complexity of the spatial arrangements thus described may vary according to whether they are referred to as *melodies*, *musical scores*, *symphonies* or *set pieces*, all of them sources in the metaphor BUILDINGS ARE MUSICAL PIECES as fully illustrated in example 56:

(56) *It* [the facade] *is organized as a musical score: numerically. ... Each level of columns follows its own regular rhythm; together, the layers*

read as simultaneous melodies or separate instruments playing their own part of a symphony. [2CHURC~1.TXT]

Sometimes a musical expression may also give rise to diverse interpretations, as is the case of example 57, where "setpiece" and "programme" reinforce each other, but also play with ambiguity since both may also suggest a machine metaphor:

(57) A triumph of engineering ingenuity, the Millennium Dome is *the largest setpiece project of the UK's millennial programme.* [MAGICB~1.TXT]

Furthermore, metaphors equating architectural composition to music may articulate visual and abstract knowledge. A case in point is *rhythm*, a term conventionally used by architects to refer to the sequential arrangement of structural and ornamental elements in buildings (cf. passage 56 above). However, such arrangements may also be referred to and described in more innovative ways by means of the pre-modification patterns often co-occurring with *rhythm* and its counterpart *beat*:

(58) Expression and function coincide in white-painted concrete *sun-shading blades* separating each window alcove: They *introduce a driving rhythmic beat to the facade*, blinker each cantilevered bed alcove for privacy, and wake the students by admitting only early morning sun. [2BETWE~1.TXT]

(59) Moneo modulates the rectangular openings of this blunt trabeation floor by floor; *each level of this outermost skin is set to its own syncopated rhythm.* [2CHURC~1.TXT]

Likewise, reviewers often assess the visual impact of buildings upon their observers or their surroundings by means of terms such as *discordant, jarring* or *harmonious*, all of them related to aural experience, yet focusing on external appearance in the architectural context:

(60) Despite the violence of its sun and the stark profile of its mountains, *the Sonoran desert around Tucson is*, like most deserts, *visually fragile – easily thrown into imbalance by a jarring building*. Though many architectural designs ... [EARTHW~1.TXT]

(61) *Spaces are* sequentially complex and *discordant.* [WALL.TXT]

Passage 60 displays an interesting mixture of figurative expressions and language games. In the first place, the assessment plays with the aural connotations of "Sonoran", a term related to sound. Such connotations are playfully combined with the musical connotations of the building's qualification as "jarring". Finally, both terms co-occur with the expression "visually fragile" in order to qualify the context of the building under review, drawing upon the senses of sight and touch.

Indeed, these examples show the ability of metaphorical language to convey disparate sensorial experiences (here those of sound, touch, and sight), a mixture referred to as *synaesthetic* metaphor after the phenomenon known as *synaesthesia*. As is well known, this concerns the involuntary physical experience of a cross-modal association whereby some people can, for instance, taste colours or experience aural episodes as visual ones (Cytowic and Wood 1982; Cytowic 1989, 1995). In a similar fashion, synaesthetic metaphors (which, although related, should not be confounded with the aforementioned physical and largely involuntary experiences) draw upon diverse sensorial domains and experiences,[38] as illustrated in the examples cited above.

Finally, buildings themselves may also be presented as musical instruments through verbs such as *resonate* or *strike a note*, and adjectives like *tuned* and *modulated*:

(62) In my view *this* [a clock tower] *also strikes a false note*, for it marks no vertical circulation axis like a Gothic (or Modernist) tower, and the servicing aspect is something that the architect chose for good reasons not to articulate. [SPEAKI~1.TXT]

(63) *Finely tuned to the climate, the views, the breezes and sunlight*, this building in no way detracts from the seductive qualities of site. [3LIKEA~1.TXT]

Again, example 62 may be discussed as an instance of a pun playing with the referent's ability to "strike" notes like any other musical instrument.

The process-focused metaphors discussed so far share two characteristics. In the first place, all of them foreground the process(es) of combination in architectural practice, each metaphor emphasizing different aspects in compliance with its own idiosyncrasy. In turn, conceiving architectural design in terms of cloth making or scientific experimentation usually rests upon rich knowledge schemas that include both particular procedures as

well as the resulting artifacts. Accordingly, a figurative expression describing architects' work as *stitching* spatial volumes not only portrays design processes in textile terms, but also suggests a view of architects as cloth makers, and of buildings as textile artifacts – even if the expression does not explicitly refer to these in such terms.

The broad range of entailments of these expressions and the metaphorical schemas underlying them contrasts with the figurative language that is solely concerned with what buildings look like or how they *behave* after construction. The following section discusses the metaphors focusing on the products of architects' work rather than the processes undergone to achieve their construction.

2. Highlighting the functional, behavioral and aesthetic properties of buildings: Product-focused metaphors

Product-focused metaphorical language draws upon a broad range of experiential domains, which provide the means for referring to and qualifying buildings in agreement with their external appearance, as well as for describing their functional or behavioral properties. Among these are what I have termed *organic*, *inorganic*, and *motion* metaphors.

2.1. Organic metaphors

Buildings and building elements are often referred to and described as animals and plants because of the similarity of their appearance, bodily functions, and general behavior. Such *organic* analogies may be roughly divided into two groups depending on whether they articulate visual or nonvisual knowledge. This may be illustrated by the following example:

(64) *The walls* of the wedge-like form *are clad entirely in a delicately translucent glass skin*, so that *the building is perceived as a series of elements encased within a shimmering membrane.* [MANCHE~1.TXT]

Here we find three terms related to the outer coverings of a building: "clad" realizing a textile metaphor, and "skin" and "membrane" instantiating a

biological metaphor. The passage illustrates a case of metaphor diversification whereby three metaphorical sources are used to describe a single architectural target (i.e., the outer layer of a building).[39] The example may also be used to illustrate the different types of information often conflated in architectural commentary, particularly when organic sources are involved. Thus, whereas "skin" draws upon the functional aspects of this organic tissue, regardless of its actual physical resemblance with the external cover of buildings, "membrane" is used in the passage to further qualify that protective layer because of its external appearance rather than its function. In other words, "skin" exemplifies a metaphor concerned with abstract knowledge, and "membrane" exemplifies a visual or image metaphor, although both draw upon the same biology domain.

Indeed, a large amount of metaphorical language incorporating animal or plant sources conveys visual knowledge, and instantiates image metaphors. That is, it is less concerned with the functional resemblance of built structures with living organisms. This is most evident in architectural jargon, much of which deals with anatomical, *visual* detail, as is the case of terms such as *wing* or *branch*, which refer to long volumes within a building. Likewise, reference to a building as a *pod* or a *dragon* and to some of its elements as *fins*, *eyes* or *beaks* highlights the physical similarity of built artifacts to such entities and body parts. Table 5 (continued on the next page) shows the organic sources involved in the image metaphors found in the corpus.

Table 5. Organic sources of image metaphors

TARGETS	**SOURCES**	
WHOLE BUILDING	ANIMAL	WHOLE: bi-valve, creature, dragon, jellyfish, mammoth, Pre-Cambrian life form, tadpole, embryo
		BODY PART/LIMB: eye, fist, hand, navel, palm, wing
	PLANT	WHOLE: onion
		ORGAN/PART: pod

Table 5. Organic sources of image metaphors (cont.)

TARGETS	SOURCES	
BUILDING PARTS	ANIMAL	WHOLE: bird, butterfly, excrescence, snake
		BODY PART/LIMB: beak, bone, cage of ribs, carapace, eye, eyelashes, eyelid, fin, finger bone, flesh, grasshopper's leg, head, leg, lip, mouth, membrane, orb, pelt, skeleton, tail, tear drop, wing
	PLANT	WHOLE: onion
		ORGAN/PART: branch, pod, stalk, stem, tendril, tree trunk
SITE	OTHER: wound	
COLOUR	ANIMAL: blood, peacock, reptile, viscera	

As illustrated in the table, organic terms may suggest similarity of colour rather than shape. This is exemplified in the passage below, where "visceral" departs from its (metaphorically motivated) more conventional sense of 'instinctive' in order to emphasize the colorful quality of the spatial artifact under review, as specified by the apposition:

(65) *Visceral shots of colour* – yellow fibreglass cubicles, a yellow wall in the entrance hall, purple and red wetsuits – *also animate the stark composition.* [2BOAT.TXT]

However, distinguishing between the visual and non-visual information conveyed by metaphorical language is not always this simple. In fact, visually informed metaphorical expressions and jargon may encapsulate physiological properties as well. This is the case of such conventional terms in architectural jargon as *skeleton* or *rib*, both used to refer to rigid supportive architectural structures and their elements, thus combining physiological and anatomical information.

Despite this twofold focus on form and function, certain biology metaphors appear to be exclusively concerned with function. These portray buildings as living organisms rather than lifeless, inanimate entities:

(66) *The top-to-bottom renovation of Baker House*, which culminated in a rededication ceremony last October, *has breathed new life into a*

still-vital organism rather than mothballing a hallowed artefact. [BACKTO~1.TXT]

This passage shows the metaphor BUILDINGS ARE LIVING ORGANISMS explicitly realized by the term "organism". However, it is more frequently the case that the metaphor is indirectly evoked. The use of nouns that refer to building elements as if they pertained to animals or plants, and adjectives and verbs more suitable for predicating something about an animate agent than for discussing inanimate artifacts is very common:

(67) By the end of the 1980s, *Moderna* [museum] *was simply too cramped for its skin* and drastic action was needed. [NORDIC.TXT]
(68) [A new square] *offered Smirke's building breathing space* and would have produced a significant new public meeting place for London, but was abandoned with the rising tide of conservation, for it threatened a substantial piece of Georgian Bloomsbury. [SPEAKI~1.TXT]
(69) The [complex will be built in] a site in the middle of *a still-born pedestrian wasteland* between towering freeway overpasses. [1IMAX.TXT]

This last extract nicely illustrates a related version of this metaphor, which may be formalized as CITIES/CONTEXTS ARE LIVING ORGANISMS. This organic view of cities or building contexts is implicit in reference to streets and avenues in cities as their *arteries*, to green spaces as their *lungs* or *green hearts*, or in descriptions of urban spaces as susceptible to being *reborn* or *resuscitated*:

(70) Recent years have witnessed *a rediscovery of our downtowns as the heart and soul of a community and they are once again alive* with new construction and activities. *This rebirth* has coincided with a new emphasis on high quality design by our federal government under the GSA Design Excellence Program, through which distinguished architects have been selected for many new projects. [FEDERA~1.TXT]

Last but not least, figurative expressions may specify this organic perspective on buildings, presenting them as human beings. In fact, buildings are often described as susceptible to having moods and personality, playing social roles, or having kinship relationships with other buildings in their surroundings. The metaphor BUILDINGS ARE PEOPLE is invoked in those

cases where buildings appear as the syntactic subjects of verbs prototypically related to human beings (e.g. *speak*, *succeed*, *seek* or *aim*). It is also implicit in the qualification of buildings through adjectives such as *self-conscious*, *friendly*, *brooding*, *ungainly* or *unassuming*, to list but a few of the personifying adjectives found in spatial assessment. By way of illustration, consider the following examples:

(71) Despite its size and location, *the building doesn't engage its neighbors; rather, it politely turns its back to them.* [LIGHTW~1.TXT]
(72) This building, *which steadfastly refused to pretend it was old but never wore its newness with pretension*, is now an historic monument and canonic work of modern architecture. [3BACKT~1.TXT]
(73) In fact, the house's form is so totemic, so familiar, that *it seems to have a personality, albeit an empathetic rather than emotive one. Its mood relies on climatic and seasonal changes*, and reflects the impressions of the person looking at it. [2STUDIO.TXT]
(74) The structure also reinforces the so-called Bilbao effect, which has expanded expectations about *how a building can exceed its immediate job to assume an important civic role.* [3HIDDE~1.TXT]

Examples like these draw attention to the entrenchment of certain schemas in architectural discourse, anthropomorphism being one such schema. However, the recurrent portrayal of buildings in human terms is not merely symptomatic of a particular way of thinking. The analysis of the review corpus suggests that this humanized rendering of buildings may also respond to more particular, rhetorical concerns of architects in concrete communicative situations. The role of personification as a discourse strategy in reviewing practices is discussed in Chapter 7.

2.2. Inorganic metaphors

Architectural metaphors also draw upon domains outside the realm of nature in order to draw attention to the visual and non-visual qualities of buildings. Among such metaphors, machine analogies are prototypically concerned with their functional, post-construction properties, equating them with machines, as shown in the examples on the next page:

(75) *MACHINE FOR LIVING* A client's disability gives new impetus to the classic Corbusian dictum. [MACHIN~1.TXT]
(76) *Under its skin the library is a great machine*, and a High-Tech architect could have had a field day with *its mechanisms*, but Wilson rightly chose not to play up this aspect. [2SPEAK~1.TXT]

In passage 75, "machine" both refers to and qualifies a house built for a disabled client tied to a wheelchair, the expression skillfully combining a pun with a metaphor. Thus, the title of this review is an intertextual allusion to le Corbusier's slogan "a house is a machine for living", while also pointing to the most outstanding aspect of the house under review, namely, its incorporation of a number of mechanical facilities making the client autonomous inside the house. The building in 76 is also explicitly qualified as a "machine", the term "mechanisms" further reinforcing the previous predication. Furthermore, the latter term illustrates how machine metaphors are often indirectly, rather than directly, instantiated by nouns such as *hub*, verbs like *adjust*, *work* or *maximize*, and adjectives such as *functioning*, *operational* and *functional*. All of these suggest the metaphor BUILDINGS ARE MACHINES, yet do not straightforwardly name the building at issue as such.

The linguistic instantiations of this machine schema refer to diverse aspects of buildings. For instance, whereas a term like "hub" in example 77 below alludes to (central) location, most other nouns, verbs, and adjectives focus on the machine's workings, drawing upon the different elements responsible for the building's functional properties and its goals, as shown in 78 and 79:

(77) The new housing is divided into two linear four-storey blocks arranged along the long edges of the site, *linked by a hub of circulation* at the south-east end. [2PARIS.TXT]
(78) Though the program is simple, *the building's mechanics are complex*. [2BUILD~1.TXT]
(79) Towards this end, *each unit aims to optimise* the use of passive solar energy, natural ventilation and daylight *to create a comfortable and energy efficient working environment*. [DAIMLE~1.TXT]

Together with this functional concern, machine metaphors may also invoke the external appearance of buildings, as shown in extracts 80 and 81:

(80) *A couple of squashed zeppelins* [i.e. building's roofs] *hover* over the solid structures. [2GOLF.TXT]

(81) At the north-west end, each block curves to a point, *like a pair of sleek ocean liners nosing gently into dry dock.* [2PARIS.TXT]

Most figurative expressions incorporating inorganic sources in the corpus are similarly concerned with external appearance. The sources involved in these image metaphors are displayed in Table 6 (continued on the next page).

Table 6. Inorganic sources of image metaphor

TARGETS	SOURCES	
WHOLE BUILDING	SHAPES	Geometric: cone, crescent, cube, curve, parallelepiped, prism, rectangle, star, wedge
		Alphabetic: H, L, U
	THREE-DIMENSIONAL OBJECTS	aerofoil, ark, band, beacon, blancmange, blob, boat, book, boomerang, box, bubble, cigar, Concorde, doughnut, egg, fan, hull, lantern, monolith, pinwheel, planter box, scaffold, ship, slab, spiral, surfboard, umbrella, wagon train, weather vane, wedding cake
	NATURE	canyon, comet, fossil, grove, island, rock, rural landscape, tree, wake
	BUILT SPACE	dome, futuristic monument, tent

Table 6. Inorganic sources of image metaphor (cont.)

TARGETS	SOURCES	
BUILDING PARTS	SHAPES	Geometric: lozenge, pyramid, wedge
		Alphabetic: H, I, L, T, U, V, Z
	THREE-DIMENSIONAL OBJECTS	accordion, aviary, backdrop, baguette, beam, bow, bowl, bowstring, box, cage, coil, curtain, drum, egg, fan, fish tank, hairpin, hub, knife, lantern, lattice, lens, moiré, musical instrument, net, ocean liner, page, perch, percolator, prow, ring, saw-tooth, scarf, scoop, scrim, seam, shield, ship, sieve, ski slope, slab, slit, slot, spiral, strip, taffy, tail of kite, visor, web, wheel, zeppelin
	NATURE	canyon, cave, cavern, cliff, cloud, crystalline formation, force, geodes, hill (pre-Alpine), island, oasis, rabbit warren, rock, saddleback, schist shard, strata, valley, wave
	BUILT SPACE	amphitheatre, chamber, chimney, city wall, dome, gallery, igloo, laboratory, plaza, pond, pontoon
SITE	THREE-DIMENSIONAL OBJECTS	aspic, bowl, gash, sliver, slot, strip
	NATURE	moon

As shown in the table, the terms used for conveying what buildings look like are very varied, and comprise well-known objects of everyday life (e.g. *hairpin*, *umbrella*, *fan*), food items (e.g. *baguette*, *doughnut*, *wedding cake*), as well as other terms denoting shapes of diverse sorts (e.g. *box*, *pinwheel*, *surfboard*). Such terms bring into focus the shape of the building or building element at issue, a shape that may be more or less geometrical and/or well defined depending on the metaphorical sources of the expressions. Consider, for instance, the terms "slab", "beached ark", "box", and "cone" in passages 82-84, which occupy different slots within the aforementioned geometrical cline:

(82) The médiathèque consists of two parts: *a red brick and glass orthogonal slab*, topped by an oversailing zinc roof and a seductively curved volume, *like the hull of a ship or beached ark*, clad in broad strips of red cedar. [2SHIP.TXT]

(83) *The building is a simple two-storey box* 140m long by 25m wide with its long axis running north-south. [2STEEL.TXT]

(84) A similar strategy informs the learning Resource Centre (or library), *a free-standing inverted cone* which floats on a polygonal timber deck within the lake, and is unquestionably the most contentious element of the entire complex. [2CAMPU~1.TXT]

In other words, whereas nouns such as *hull*, *slab*, or *sawtooth* encapsulate recognizable, non-geometrical shapes, *box*, *wedge*, *ring*, *cone*, and alphabet letters articulate geometrical information proper. Furthermore, a small set of terms in the corpus rendering shape combine information about the size as well as the width or height of the architectural entities involved. This is the case of terms such as *strip*, *slot*, *hairpin* or *perch*, two of which are exemplified below:

(85) Elevators deposit partygoers onto a mezzanine, then they descend a curving stair as dramatic – if not as grand – as the staircases of Technicolor musicals. *From this perch 25 stories above Midtown Manhattan*, you can marvel at the sliced crown of the Citicorp Center, peer into a corner of Central Park, and gaze down on 57th Street ... [225FLO~1.TXT]

(86) The two blocks enclose and overlook *a narrow strip of semiprivate garden*; green space is a rare commodity in this tightly-knit urban neighbourhood, so the presence of a new garden is especially welcome. [2PARIS.TXT]

In turn, terms drawing upon the domain of geology highlight the general appearance of buildings rather than a specific trait, as shown in the following passage:

(87) *If the front elevation* [of the house] *is a cliff face, the back is a crystalline formation breaking free of the earth.* [2INTHE~1.TXT]

The most complex set in this group of metaphorical expressions draws upon cultural domains such as music, fashion, the cinema, and architecture itself. The sources from such domains are particularly interesting given the

amount and quality of the knowledge projected onto architectural targets. Before taking this point further, consider the following examples:

(88) *The almost gaseous materiality* reflects the distance Mayne has come *since the heavy-metal days in the 1980s, when his Schwarzenegger display of steel* implied permanence and a form of unyielding truth in construction. [2HIDDE~1.TXT]

(89) Myers' design is *a multiple hybrid of Eames and Kahn.* [CUSTOM.TXT]

In passage 88, the evaluation of the architect's excessive reliance on metal structures in previous work is articulated by the use of "heavy metal" (a pun referring both to that excess and to a musical trend also characterized by excessive noise). Similarly, the name of a famous muscular actor is used to pre-modify the architect's "display of steel". Understanding expressions like these will involve, in the first place, imagining the typical appearance of the entities used as qualifiers. At the same time, it requires appreciating the positive or negative connotations of such nouns within the general cultural context in which the discourse interaction takes place. Even more specifically, those implications will be related to the specific set of values of the community of architects (actually, a particular culture within that broader frame).

The clearest case of the influence of cultural aspects on metaphor interpretation concerns figurative language incorporating the names of well-known architects. This may be seen in passage 89, which is concerned with describing the overall appearance of the building at issue while ascribing that appearance to a specific trend or typology. This commentary is incomprehensible if the reader has no familiarity with the physical appearance of Kahn's and Eames's work, the body of knowledge informing it, the corpus of practices it encapsulates, and the implications for the community of architects in terms of status and value. Thus, the use of names of architects proves a particularly comprehensive strategy in architectural discourse.[40] On the one hand, they are shorthand reference terms in that they encapsulate well-known design typologies in the architectural canon. On the other hand, they may be usefully deployed to convey judgments precisely by appealing to the status of the architects whose prototypical design style is being referred to. Moreover, their discipline-specific nature results in the expressions reinforcing the sense of community between reviewer and audience, since they activate information that those outside the profession may not

easily understand. These points will be re-addressed in the following chapters.

2.3. Motion metaphors

An important metaphorical set in the corpus draws upon the concept of motion. This is hardly surprising given that it is largely by moving in space that we obtain our partial understanding of it. Some of the figurative expressions informed by motion pivot on the concept of JOURNEY. The metaphorical schema MOVING WITHIN A BUILDING IS MAKING A JOURNEY is implicit in terms like *routes* (usually co-occurring with *circulation*), *itineraries*, *path*, *promenade*, *direction*, *orientation* or *journey* itself. Passage 90 below shows the diverse aspects of the experience of moving inside buildings that may be expressed in figurative terms:

(90) "From one building to another, *you're experiencing movement as part of a journey*," claims the architect, who always *deploys orientation devices – views, openings, corridors – to make the path of the constantly changing officescape self-guiding and cogent.* [2HIDDE~1.TXT]

We may also find examples where this particular journey is specified as a sea voyage or trip – the expressions often evoking the metaphor SPACE IS A FLUID, as shown in the following extract:

(91) After years of Post-Modernism ... Wilson has shown us the value of letting the building articulate its own content, of making its parts recognizable and *its spaces navigable.* [3SPEAK~1.TXT]

Most lexis drawn from motion, however, portrays buildings themselves as moving rather than merely supplying people with spaces that allow movement. This kinetic view of buildings is conveyed by verbs (e.g. *move*, *go*, *clamber*, *run*, *meander*), nouns (e.g. *progress*, *rotation*, *flow*), and adjectives. The latter often explicitly qualify buildings as *kinetic* or *dynamic* entities:

(92) The masonry-framed building's interiors are as spatially complex as its outward form suggests: *sliced, canted, jostling spaces that slide*

around and between the concrete sections like a bustling crowd. [2OUTOF~1.TXT]

(93) Santiago Calatrava's *kinetic* building parts fold and unfold, spread and glide. [CPBUIL~1.TXT]

Nevertheless, most motion metaphors are realized by verbal patterns like the one shown below:

(94) *The new library eases gently into a Wild West landscape* of rolling forested hills and snow-capped mountains. [2RUSTI~1.TXT]

Descriptions of trails or roads *running* from one place to another, or, as in the passage above, of buildings *easing into* some location have drawn the attention of scholars from various disciplines and schools of thought, who have explained them from different perspectives.

Within Systemic Functional Linguistics they have been explained as expressing the relationship between a participant (e.g. the trail, road, or building) and one of its attributes, while noting that, in this case, the attribute concerns a particular location or *circumstance* rather than the usual properties designated by adjectives or nouns (Halliday 1985; Eggins 1994; Thompson 1996; Martin, Matthiesen, and Painter 1997). These constructions are seen as realizing a relational A IS IN BE circumstantial pattern in which the ascription of an attribute to the participant in subject position is conveyed *via* a verb realizing a material, dynamic process rather than the prototypical verb or copula *be*.

This explanation is congruent with the key notion of choice in Systemic Functional Grammar and the views of language as a network of options for encoding meaning according to a given situation (be it the extra-linguistic context where communication takes place or the textual context or co-text determining the choice of particular expressions). In this regard, what is postulated by functional linguists is that language users may choose between two different ways for construing the semantic notion of location. They may choose to construe it relationally, that is, by means of verbs of *having* or *being* (prototypically used to convey relations and states) or, rather, they may express spatial configurations in more material terms by means of verbs of *doing* like motion verbs.[41] Thus, in Thompson (1996: 81) we find the use of a verb like "run" in the sentence "Hope Street runs between the two cathedrals" explained as a case of *blending* in which "the relational ('state') meaning is dominant but the wording brings in a material

('action') process colouring." The choice of a motion verb to express a circumstance like location is implicitly attributed to the rhetorical demands imposed on authors, who may seek "a more dynamic tone" in their descriptions "especially if there are a number of similar choices in that area of the text." In short, the implicit view is that the use of a motion verb is subservient of other textual considerations and, therefore, dispensable, rather than the natural or first option to linguistically convey a given situation.

Motion patterns have also deserved the attention of cognitive linguists and scholars, who have attempted to explain the *stative* use of motion verbs in spatial descriptions from diverse perspectives. Thus, in Lakoff and Turner (1989: 142-144), they are regarded as particular instances of the metaphor FORM IS MOTION whereby our understanding of certain spatial arrangements and topologies rests upon particular ways of moving. In other words, motion is mapped onto form or shape.

Other cognitive scholars have framed such a figurative combination within the broader phenomenon variously referred to as *fictive motion* (Talmy 1983, 1996, 2000), *abstract motion* (Langacker 1986, 1987) and *subjective motion* (Matsumoto 1996), a view that does not necessarily imply the presence of a metaphorical mapping underlying the motion patterns.[42] Thus, for Langacker (1986, 1987) a sentence like "Highway A3 goes from Valencia to Madrid" would not instantiate a mapping from a spatial domain to a non-spatial domain. Rather, it designates a particular spatial configuration as this is dynamically construed by the agent responsible for the expression. The resulting construction invokes a road seen or profiled in full, that is, imagined and verbalized through the simultaneous activation of every single location in its spatio-temporal base *via* what Langacker calls *summary scanning* (1986, 1987). The expression conveys a certain sense of motion as imagined or conceptualized by the utterer, but this does not imply the presence of a metaphorical mapping from a motion domain onto a spatial one.

Finally, expressions making use of motion verbs to describe motionless scenes and events are seen in Talmy (1996: 213) as illustrating our "cognitive bias toward dynamism." In contrast with Langacker's explanation, Talmy (1996) points to the presence of metaphor in fictive motion constructions concerned with spatial descriptions regardless of their stronger or weaker evocation of *actual* motion for every speaker. Talmy frames the phenomenon within the broader notion of *ception*, which encompasses both notions of perception and conception. To some extent, Talmy's views of fictive motion constructions as manifestations of how people *ceive* and talk

about world phenomena takes us back to Lakoff and Turner's FORM IS MOTION introduced earlier. However, in contrast with their views of this schema as an instance of conceptual metaphor, Talmy draws attention to the visual plus conceptual quality of the process. His notion of *ception* may, in this sense, prove a useful way to approach the figurative constructions used by architects to describe spatial arrangements. The need for a new framework avoiding the clear-cut distinction between cognitive phenomena is postulated in Talmy (1996: 244-245) as follows:

> Much psychological discussion has implicitly or explicitly treated what is termed *perception* as a single category of cognitive phenomena. If further distinctions have been adduced, they have been the separate designation of part of perception as *sensation*, or the contrasting of the whole category of perception with that of conception/cognition. One motivation for challenging the traditional categorization is that psychologists do not agree on where to draw a boundary through observable psychological phenomena such that the phenomena on one side of the boundary will be considered "perceptual", while those on the other side will be excluded from that designation. ... Moreover, psychologists not only disagree on where to locate a distinctional boundary, but also on whether there is a principled basis on which one can even adduce such a boundary. Accordingly, it seems advisable to establish a theoretical framework that does not imply discrete categories and clearly located boundaries, and that recognizes a cognitive domain encompassing traditional notions of both perception and conception. ... To this end, we here adopt the notion of "ception" to cover all the cognitive phenomena, conscious and unconscious, understood by the conjunction of perception and conception. While perhaps best limited to the phenomena of current processing, *ception* would include the processing of sensory stimulation, mental imagery, and ongoingly experienced thought and affect. An individual currently manifesting such processing with respect to some entity could be said to "ceive" that entity.

In this regard, *ception* may be a useful – and unbiased – concept to approach what particular communities like architects do when perceiving, conceptualizing, and talking about their specific world.

The perspective adopted in this book for discussing expressions like "the massive warehouse runs along the north side of the site" or "the tower soars above the quay" draws upon both trends of research briefly outlined above. On the one hand, it draws upon the work of cognitive scholars, particularly those that postulate the metaphorical motivation of the phenome-

non. Thus, as will be explained in detail in Chapter 6 a large number of motion patterns in architectural discourse point to the presence of the aforementioned metaphor FORM IS MOTION, where the trait metaphorically articulated is the shape or image suggested by spatial arrangements. In other words, this general formula comprises mappings which concern mental images of particular kinds of moving, and provide the means to understand and articulate the external appearance and siting of buildings in agreement with the visual concerns of architecture. On the other hand, the linguistic instantiations of these image-motion mappings help architects articulate the relationship between two spatial configurations whereby built ensembles are qualified according to how they appear in their sites – a grammatical explanation compatible with the functional-systemic views briefly surveyed earlier. The position sustained in this book is, then, that the relational predications incorporating motion verbs are motivated by visually informed metaphors where particular layouts or appearances (the targets in the mapping) are seen as reminiscent of the kind of movement encapsulated in the metaphorical sources (the motion verbs).

However, simply subsuming expressions like these under the general formula FORM IS MOTION would give a poor account of what appears to be a fairly complex metaphorical transfer. For, as will be seen later, the verbs concerned with describing spatial arrangements are not equally imagistic and kinetic. This may be evidenced by comparing verbs such as *crouch* and *hug* to *run* and *travel*, the former two evoking clearer pictures of spatial arrangements than the latter. In the second place, the relationship between the building and its site may be described in more or less dynamic terms depending on the different verbs employed in the expressions. Compare, for instance, a description of a building as *resting* in its site with another saying that a given structure *soars* above it.

At the same time, many verbs may also evoke the entities (agents, inanimate entities and forces) whose prototypical movement helps describe spatial arrangements. This is the case of *step*, *settle*, *clamber*, *crouch* or *reach*. These may equally well be said to evoke the metaphor BUILDINGS ARE ANIMATE BEINGS, since they require agents whose bodies can move. Some of these further specify the limbs involved in the expressions. For example, *stand*, *step*, or *crouch* incorporate legs in their semantics, while *reach*, *hug*, *punch*, and *embrace* are typically performed by the upper limbs. These are illustrated in passages 95 and 96 on the next page:

(95) *The green prism* [building] *crouching* among neo-Corbusian mediocrity. [CPMONT~1.TXT]
(96) The different elements are articulated externally, with *the IMAX which punches into the hub* as a glass cylinder illuminated to become a beacon at night. [2TOTHE~1.TXT]

In addition, verbs like *hover*, *oversail*, or *float* bring to mind boat or plane sources and, hence, a metaphor that may read BUILDINGS/BUILDING ELEMENTS ARE MOBILE ARTEFACTS:

(97) *Hovering like a gargantuan blancmange above the Greenwich Peninsula*, the Millennium Dome is now an inescapable part of the London skyline. [MAGICB~1.TXT]

A third not unrelated group comprises the verbs *surge* and *flow*, which bring to mind the metaphor SPACE IS A FLUID, also implicit in the figurative expressions using the verb *float*:

(98) In the Reyes-Retana House, *rooms flow freely into each other* along the inside edges of the L; all provide easy access to the courtyard through sliding glass doors. [2SUBURB.TXT]
(99) A similar strategy informs the learning Resource Centre (or library), *a free-standing inverted cone which floats on a polygonal timber deck within the lake*, and is unquestionably the most contentious element of the entire complex. [2CAMPU~1.TXT]

Other verbs point to the MALLEABILITY schema discussed earlier, and characterize buildings and parts of them as pliable (*fold*, *unfold*), soluble (*melt*) or flexible solids (*stretch*, *splay*, *spread*, *flex*, *extend*, *expand*) whose movement results from the application of an external or internal force of some sort causing a change of shape or state. This can be illustrated by the following extracts:

(100) *The new building* – an oblong, boatlike shape – *will stretch behind the old school*, with a main entrance on the west side. [2ISOZAKI.TXT]
(101) Seen from the west end, the jointed glass shells enclosing the planetarium's sides open and close in stages, *as its jointed frame flexes*. [CPBUIL~1.TXT]

As we have seen, motion metaphors are far from being simple, most of them often evoking figurative schemas drawing upon other domains. Nevertheless, despite their differences all the motion expressions seen so far exemplify the intrinsically visual quality of a large amount of the metaphorical language found in architectural texts. A detailed discussion of this dynamic and graphic construal of static scenes is provided in Chapter 6 (cf. section 2).

3. Metaphor diversification in architectural discourse

The foregoing discussion has described the mapping of sources from such different domains as textiles, music, or language onto architectural targets. The mappings give rise to ontological metaphors like BUILDINGS ARE CLOTH, BUILDINGS ARE TEXTS, BUILDINGS ARE MUSICAL PIECES, BUILDINGS ARE LIVING ORGANISMS and BUILDINGS ARE MACHINES among others, as well as structural metaphors portraying architectural practice as MAKING CLOTH, LINGUISTIC PRACTICE or MAKING MUSIC (the latter subsuming most of the ontological ones).

This metaphorical confluence may be seen as illustrating what is referred to as *metaphor composing* (Lakoff and Turner 1989) and *metaphor diversification* (Goatly 1997), that is, the use of multiple sources to conceptualize and refer to the same target while highlighting different aspects of it. Of course, many of the metaphors described so far belong to the figurative repository of architects built throughout the long life of the discipline and, in this sense, their use and co-occurrence in contemporary texts might well be explained as something largely inherited (cf. Chapter 2). However, the question still remains as to why diversification takes place. Are there any properties shared by source and target entities sanctioning the diverse metaphors conflating in architectural discourse? In order to answer this question, let us consider what buildings are in the first place, and in what ways they may resemble living organisms, texts, pieces of cloth or music, and machines.

3.1. Buildings as containers

One of the folk theories of architecture, inherited from the discussion in German aesthetics in the nineteenth century and constantly revisited by

diverse contemporary trends, is that the discipline is the art of creating space by enclosing it. Accordingly, buildings are commonly viewed, first and foremost, as spatial enclosures, that is, as huge containers used for sheltering people and/or storing things. This notion of buildings as containers can be expressed by means of diverse lexical items alluding to the interior, exterior and boundary elements characterizing containers in a non-metaphorical way (e.g., nouns such as *container*, *containment* or *interior/exterior*; verbs such as *contain* or *house*; adjectives such as *full*, *internal/external* or *stuffed*; and the diverse prepositions used in architectural commentary). On the other hand, this view of buildings as containers may be metaphorically rendered by means of figurative language incorporating sources also characterized by having an interior, an exterior and a boundary perceived as similar or, at least, suitable for discussing built space.

Thus, we have already seen that the interior and boundary of built artifacts are often referred to and discussed by means of language mostly drawn from the textile and biological domains, as illustrated by architectural jargon terms such as *bowels*, *skin* or *cladding*. The presence of an interior and a boundary is also implicit in verbs that describe architects' intervention on buildings as *plugging into* or *carving out*, which have been introduced earlier as instantiating malleability metaphors:

(102) On the east side, where *his addition plugs into the U-shaped high school, Isozaki carved out the back of the lozenge and plugged in a row of stair towers* clad in black-painted corrugated-metal panels. [2SCIEN~2.TXT]

This passage also exemplifies an image metaphor instantiated by the term "lozenge" used to refer to the building at issue. Image metaphors rely upon the actual or perceived similarities between source and target and, in this sense, are resemblance motivated (Grady 1999). In turn, most image metaphors in the corpus may well be explained as also grounded at a very basic level in the CONTAINER image schema and two schemas related to it, namely, the BOUNDED REGION and the SURFACE image schemas.[43]

Some of the images grounded in the CONTAINER image schema highlight the three-dimensionality of buildings, as exemplified by metaphorical sources such as *box*, *aviary*, *fish tank*, or *ark* (all of them variants of the notion of cube). These represent 8.8% of the total number of image metaphors in the corpus, and are illustrated in passages 103 and 104:

(103) Here, the green glass wall [the rear facade of a café] becomes transparent and houses overlapping diagonal sheets of glass, intended to create plays of light and reflection. *An aviary without birds or a fish tank without fish*: one is forced to look at a detritus of bogong moths, palm leaves, cigarette packets and grime. [2CHIFLEY.TXT]

(104) *The building is a simple two-storey box* 140m long by 25m wide with its long axis running north-south. ... *The box is punctured* by two covered passages which separate the functional components of the building. [2STEEL.TXT]

Apart from such cases, the image metaphors in the corpus seem to be particularly concerned with two specific traits related to containment, namely, the form suggested by the surface covered by built space (as shown in plans), and the form or contour adopted by its boundary (as shown in elevations), both involving two-dimensional perspectives of built work. Metaphors motivated by the SURFACE image schema represent 30% of the corpus, and are instantiated by terms which evoke basic geometrical shapes such as a triangle (*three-sided doughnut*, *fan*), a circle (*onion*, *coil*), or a line (*slash*, *strip*, *swath*).

Nevertheless, it is metaphors motivated by the BOUNDED REGION image schema that yield the largest number of instantiations in the corpus (53.2%). Some of these may be further grouped according to the basic contour or shape suggested by the sources involved in the mapping, for instance, a triangle (*wedge*) or an ellipse (*cigar*, *zeppelin*, *baguette*, *eye*). Other more eclectic sources include *star*, *sawtooth* or *the Concorde*. Both "sawtooth profile" and "tail on a kite" in the following passage point to the presence of the BOUNDED REGION image schema:

(105) Hardy let the *sawtooth profile* and translucent roof of this parking shelter (which he likens to *"the tail on a kite"*) stand in contrast to the plaza's enclosed structures. [2RAINBOW.TXT]

In this regard, the image sources in the corpus may be broadly seen as different ways of highlighting or profiling specific configurations against a spatial base (Langacker 1987). Many sources can be explained as specific realizations of three-dimensional spatial configurations in agreement with the CONTAINER image schema, or of two-dimensional configurations relying on the BOUNDED REGION and SURFACE image schemas. The exceptions to this fairly simple correspondence between image schemas and meta-

phorical sources concern metaphors drawing upon the names of architects and cultural artifacts. These have been discussed as carrying a complex mixture of information comprising physical and relational features associated with both source and target, but also all the connotations and values implicit in the source term in compliance with both the architectural canon and the value system of the broader culture to which the sources belong.

When various image expressions co-occur within the same text it is often the case that more than one image schema is invoked. By way of illustration, let us reconsider example 102 seen earlier and example 106 below:

(106) *The LVMH Tower fills a narrow, 60-by-100-foot sliver* on East 57th Street. [225FLO~1.TXT]

In example 106 "sliver" refers to the two-dimensional surface providing the siting space for the new building, whereas the verb "fills" evidences its actual three-dimensional nature (i.e. what looks like a "sliver" in ground plan will become a three-dimensional void after digging work, *filled in* with the building's foundations). Similarly, in example 102 a building is referred to as a "lozenge" in accordance with the shape suggested by its boundary or contour, the term being concerned with a two-dimensional description of the building. In contrast, "plugs into", "carved out" and "plugged in" provide a three-dimensional perspective of this "lozenge", thus highlighting its container quality. This prototypical use of figurative expressions for providing different spatial perspectives of the buildings under review in architectural texts is discussed in detail in Chapter 7.

An important aspect of the profiling process involved in image metaphor is that it ultimately rests on metonymy, as also suggested in Lakoff and Turner (1989), and Gibbs and Bogdonovich (1999). The metonymy involved is the high level metonymic mapping WHOLE-FOR-PART since what is mapped from source onto target is not the whole entity but, rather, a small number of its characteristic features, such as the shape suggested by its boundaries or that of the surface covered by the building's plan.

In order to illustrate this point, let us go back to example 102. Here the term "lozenge" instantiates a mapping that only involves the oval contour of a lozenge rather than any other trait of such an entity (e.g., texture or color), even if the whole lozenge entity is used to refer to the building. This lozenge whole is then mapped onto the target building entity on the grounds of their similar contour or overall shape. The metonymy thus seems to be twofold: (a) the image mapping concerns one trait (part) of two

entities (wholes) perceived as similar on account of that trait, and (b) the whole entity stands for the trait thus mapped, allowing for the reference to the building in 102 as a "lozenge" although it is, rather, its contour that is mapped onto the contour of the spatial arrangement at issue. A schematized view of the mapping would run as follows:

Metonymic mapping within image source domain

source domain		**target domain**
shape (of lozenge)	is profiled from & stands for	lozenge
BOUNDARY		CONTAINER
PART	►►	**WHOLE**

Metonymic mapping within image target domain

source domain		**target domain**
oval shape/contour	is profiled from	built volume
BOUNDARY		CONTAINER
PART	►►	**WHOLE**

Image mapping

target domain		**source domain**
shape (oval) of building	looks like	shape of lozenge
PART (CONTOUR/BOUNDARY)	◄◄	PART (CONTOUR/BOUNDARY)
built volume	is a	lozenge
WHOLE (CONTAINER)	◄◄	WHOLE (CONTAINER)
	LINGUISTIC REALIZATION	
	"Isozaki carved out the back of *the lozenge*"	

In short, many of the image metaphors found in architectural discourse seem to ultimately rely on a metonymic selection of certain features characterizing the entities involved in the mapping (and standing for those traits in the final linguistic expression). They also appear to be informed by a number of image schemas, even if these are not used to give ontological status to abstract notions (as happens with MORE IS UP) but to foreground some

physical properties of buildings at the expense of others. Image metaphors provide the means whereby architects discriminate bodies of space according to their external traits, and refer to and qualify them in concomitant ways. Furthermore, image metaphors not only arise from visual perception, but also, and most importantly, from our intellectual capacity to abstract schematic configurations from it, thus reducing what would be an enormous quantity of input data to a manageable amount of basic topologies that can be applied whenever new information is encountered – a potential of resemblance-motivated metaphors also acknowledged in Grady (1999) when comparing this type of metaphor with correlation-based ones. The image metaphors found in the corpus, however, are not bi-directional; that is, they do not display the symmetry that Grady (1999: 95-96) finds characteristic of many resemblance metaphors. For, although the equation of a woman's waist with an hourglass may well work in either direction, it is difficult to see how a given building may, in turn, help us visualize and describe an *extended palm*, a *fan*, or a *lozenge* – even if these three images are, indeed, often used by architects to describe their work.

3.2. Buildings as part-whole composites

Buildings are, of course, more than simple containers: they are very complex and highly structured artifacts resulting from the correct, orderly combination of a large number of elements. The way in which this part-whole quality of spatial arrangements is metaphorically described calls attention to the presence of another basic image schema, namely, the WHOLE-PART image schema. This may explain, at a very basic level, the co-existence of textile, biology, machine, language or music metaphors in architectural discourse, even if some of them appear to be more closely related to our prototypical conception of part-whole composites (e.g., textile metaphors) than others (e.g., experiment metaphors). In fact, their co-existence may well be partly seen as related to the changing views on two of the notions most widely debated throughout the long life of the discipline, namely, *order* and *structure* – two concepts intrinsic to any whole-part entity.

On the one hand, we have already seen that views of order and structure as comprising compositional plus functional considerations took shape following organic and machine metaphors (both fully alive in contemporary practice and discussion). Organic metaphors found their outmost expression in the work of Mies van der Rohe and his views that it is "the organic prin-

ciple of order that makes the parts meaningful and measurable while determining their relationship to the whole" (quoted in Neumeyer 1991: 317). In turn, le Corbusier's definition of buildings as machines epitomized the mechanical analogies used in the discipline from the nineteenth century on.

Both the ontological metaphors BUILDINGS ARE LIVING ORGANISMS and BUILDINGS ARE MACHINES currently used to discuss the functional and/or behavioral properties of buildings draw upon the particular conception of the relationship of parts within a whole posited by each organic or mechanical model (inherited, yet consistently revisited by diverse contemporary architectural trends). Indeed, following Grady's (1997, 1999) discussion of primary metaphor and of metaphor types, we may hypothesize that the co-occurrence of both metaphors in architectural commentary relies upon two mechanisms – albeit somewhat different ones. On the one hand, the metaphors BUILDINGS ARE LIVING ORGANISMS and BUILDINGS ARE MACHINES may be explained as motivated by the perception of a functional resemblance between such disparate entities as buildings, living organisms, and mechanical contrivances, in which case both metaphors would fall within the resemblance type accounted for in Grady (1999). On the other hand, since the behavioral or functional properties of living organisms and machines largely depends on the relationship among its component parts (limbs, organs, or mechanisms), and given the aforementioned compositional plus functional concerns in architecture, it may also be argued that both metaphors are, in turn, grounded in a primary metaphor that could be formalized as BUILDINGS' FUNCTION/BEHAVIOR IS [DETERMINED BY] THE RELATIONSHIP BETWEEN PARTS WITHIN A WHOLE.

The co-instantiation of these organic and mechanical views with descriptions of buildings as textile artifacts, musical pieces, experiments, or texts is more difficult to explain, if this is understood without also considering the process-focused, structural metaphorical schemas subsuming them (schemas which, as has already been described, help conceptualize the process of organizing spatial parts into a whole along different degrees of concretion).

On the one hand, the process of designing and building a spatial artifact may be conceived as a concrete, manipulative process whereby physical matter of various sorts is arranged into a composite structure. In this sense, we could claim that the malleability, experiment and textile metaphors described in this chapter also point to a process-focused, primary metaphor (in Grady's terms) formulated as ASSEMBLING/ORGANIZING SPACE IS MANIPULATING TANGIBLE/PHYSICAL MATTER (itself motivated at a very basic

level by the PART-WHOLE image schema, and relying upon our capacity of establishing similarities among disparate entities and processes). The difference between the architectural metaphors ARCHITECTURAL PRACTICE IS CLOTH-MAKING, ARCHITECTURAL PRACTICE IS MANIPULATING/SHAPING RAW MATTER INTO A SPATIAL WHOLE (implicit in BUILDINGS ARE MALLEABLE ARTEFACTS), and DESIGNING A BUILDING IS EXPERIMENTING with those discussed in Grady (1997) as partly relying on the aforementioned primary metaphor ORGANIZATION IS PHYSICAL STRUCTURE (helping to understand the non-physical organization of society or theories) is that in the architectural realm both source and target in the metaphors are usually concrete concepts, and that the notion of structure may combine both function and physical arrangement (i.e., both abstract and visual information, as happens with textile metaphors). In other words, concrete, physical structure, even if drawn from a domain other than building is used to conceptualize concrete, physical structure as well as those other aspects directly attributed to it – which somehow further warrants the classification of these metaphors as resemblance-based in Grady's (1999) sense.

This being the case, what happens with metaphors like ARCHITECTURAL PRACTICE IS LANGUAGE PRACTICE and ARCHITECTURAL PRACTICE IS MUSICAL PRACTICE (and the corresponding BUILDINGS ARE TEXTS and BUILDINGS ARE MUSICAL PIECES) where the assemblage of parts into a built composite relies on abstract rather than physical, immediately accessible structure? Of course, we may contend that texts and musical pieces are structured entities in their own right, even if part of their structured quality lies in the human ability to impose structure rather than on directly observable structuring principles and elements solely – in contrast with the immediate, tangible structure of a piece of cloth or a building itself. Indeed, the organization of both texts and musical pieces is not only often conceptualized in textile terms (consider, for instance, the term *texture*, *fabric* or *weave* used to refer to the consistent, cohesive quality of textual and musical artifacts), but is also often seen and discussed in spatial, architectural terms (see, for instance, discussions on textuality in the work of Barthes or Derrida and, above all, the current views on hypertextuality, or the discussion of architectural metaphors in music discourse in Larson and Johnson [2004]).

Indeed, the difficulties inherent in the use of the term *structure* in textual and musical practice are similar to those found in the use of the term in the architectural realm. Thus, as discussed by Forty (2000), structure has been used with three different senses: until the mid-nineteenth century, it referred to any building in its entirety. From the mid-nineteenth century

onwards, it was used to mean the system of support of a building – in fact, the physical structure alluded to by Grady's primary metaphor ORGANIZATION IS PHYSICAL STRUCTURE. Finally, after the modern revolution in architecture at the beginning of the twentieth century the term ended up being used to allude to a – somewhat vague – notion of schema or order through which a drawn architectural project becomes intelligible (and, by the same token, a textual or musical artifact). According to this third sense, *structure* represents an abstraction of the relationship between the parts within a whole, presumably there but not directly accessible from or visible in a finished building. Thus, in Forty's (2000: 276-277) words, rather than being a clearly defined and accessible entity

> 'structure' is a *metaphor*, which, while it may have started in building, only returned to architecture after much foreign travel. Furthermore, 'structure' is not one, but *two* metaphors, each borrowed from a different field: first from natural history, which gave it its nineteenth-century meaning; and second, from linguistics, which provided its twentieth-century meanings. ... what has been remarkable in architecture has been the prolonged coexistence within a single word of two essentially hostile metaphors.

In this sense, we may hypothesize that the metaphors BUILDINGS ARE TEXTS and BUILDINGS ARE MUSICAL PIECES (together with TEXTS ARE CLOTH as well as the metaphor TEXTS ARE LIVING ORGANISMS when it is used to focus solely on anatomical detail) actually belong to the many-to-many correspondence network described in Grady (1997) as comprising THEORIES ARE TEXTILES, SOCIETY IS A TEXTILE, SOCIETY IS A BUILDING, a network itself motivated by the primary metaphor ORGANIZATION IS [PART-WHOLE] PHYSICAL STRUCTURE. However, as noted in Forty (2000), this latter metaphor originated in the architectural domain, and returned to it after being successfully applied to conceptualize the somewhat more abstract (i.e., not directly accessible in physical, tangible terms) organization or logic of musical pieces or texts.

In this regard, as happens with the metaphors discussed earlier in this section, the metaphors BUILDINGS ARE TEXTS and BUILDINGS ARE MUSICAL PIECES together with their corresponding process-focused metaphorical schemas (ARCHITECTURAL PRACTICE IS LANGUAGE PRACTICE and ARCHITECTURAL PRACTICE IS MUSICAL PRACTICE) belong to Grady's (1999) resemblance type, yet are also grounded in the correlation-based, primary metaphor ORGANIZATION IS [PART-WHOLE] PHYSICAL STRUCTURE. More-

over, in clear contrast with the image metaphors (also belonging to the resemblance type) discussed in the previous section, the metaphorical schemas above appear to be, in most cases, bi-directional (i.e., a text may be described in spatial, architectural terms and a building may be discussed in textual terms).[44]

In short, many of the metaphors mostly concerned with the less visual aspects of architectural design are resemblance based, yet appear to pivot on the different ways in which the notion of structure has been understood in the architectural realm. On the one hand, organic and machine views of buildings rely upon the primary metaphor ORGANIZATION IS PHYSICAL STRUCTURE, understanding organization as a combination of both assemblage of parts into a whole and the functional possibilities afforded by such combination. On the other hand, musical, textile, and linguistic views of architectural design and buildings rest upon a more abstract, non-functionally biased view of structure (understood as underlying logic or order, and displaying various degrees of visual quality), yet originally also motivated by the metaphor ORGANIZATION IS PHYSICAL STRUCTURE. All these metaphors are, in turn, grounded at a very basic level in the PART-WHOLE image schema, each metaphor highlighting diverse aspects and implications of its logic as discussed when describing how the metaphors are instantiated in the corpus under analysis.

As discussed in this section, both image and conceptual metaphors share the fact of being motivated by image schemas. Moreover, since buildings are both containers and part-whole composites, all the metaphors in the corpus might be discussed as holding relationships among themselves, each metaphor type highlighting different aspects of built space. Thus, whereas the CONTAINER schema imposes a structure on the view of buildings as bounded spatial volumes, the WHOLE-PART schema stresses the different elements and configurations ultimately conforming them. The conceptual metaphors used to describe buildings would recruit basic information from the internal elements configuring these two image schemas, while image metaphors would concern more specifically the topology suggested by the boundaries of and surfaces covered by built artifacts.

This view of image and conceptual metaphors as ultimately image-schematic motivated as well as holding relationships among themselves may not only question the commonly-accepted view towards both types, but also points to Grady's (1999) metaphor classification along a motivation parameter whereby image metaphors fall within the resemblance type while conceptual metaphors can illustrate both the resemblance and the

correlation types. The question is whether correlation and resemblance are mutually exclusive or not, and affects not only the classification of image metaphors, but also the distinction of conceptual metaphors between resemblance-motivated and correlation-motivated ones.

A solution might be to discuss motivation along a cline just as we have done with other parameters in the classification of architectural metaphors described earlier (cf. Chapter 4). This would allow us to do without the sometimes difficult issue of drawing lines between cognitive phenomena and of treating them as belonging to distinct types. Yet, it would also provide a poor and blurred picture of the distinctive features characterizing those very same phenomena.

A different possibility is to shift our attention from the object under classification to the parameter enabling classification itself in order to see whether resemblance and correlation are equal in status and, hence, do allow for a clear-cut distinction of metaphor types. In this sense, let us remember that the image schemas giving rise to correlation metaphors are *pre-conceptual* tools arising from embodied experience and, consequently, essentially unconscious, while the ability to establish comparisons between two given entities is a conceptual and conscious mechanism whereby human beings understand and categorize reality and the entities and processes in it. In other words, world entities *are not* objectively similar but, rather, *are found* similar by the agent perceiving them as enabled by a number of cognitive (e.g., image schematic) and cultural factors mediating that perception and conceptualization. The difference between *being* and *being found* is then important enough at a qualitative level to be kept as distinct.

Thus, and working from the essential experientialist premise that we grasp and understand our world through our experience in it, it seems plausible to argue that our imposing some kind of resemblance upon entities will ultimately rely on this experience as well as the – unconscious – structuring role of image schemas. In other words, image schemas come first, and constrain and structure resemblance-building processes. Indeed, even a correlated, image-schematic metaphor such as MORE IS UP involves establishing similarities between an observable, physical phenomenon and a non-physical, abstract one after having had enough experience with the former. Consequently, if the capacity of imposing resemblance ultimately rests upon image-schematic knowledge, correlation and resemblance are not mutually exclusive but, rather, hierarchically related, and motivation may not be a useful parameter to make fine-grained distinctions between metaphor types.

Under this view, we might claim that the metaphors in the corpus are, in the first place, resemblance based, yet are also dependent on a primary, correlated metaphor grounded in an image schema. Image schematic knowledge appears to play a key role by providing skeletal structure while constraining what kinds of traits are profiled and given higher-level metaphoric status against those backgrounded according to the different figurative schemas at work. Moreover, in my view all the metaphors would ultimately be similarity or resemblance creating rather than similarity based, the similarity resulting from our creative human capacities rather than having an objective, cognitively detached existence of its own.

Chapter 6
The linguistic realization of metaphor in architectural discourse

> Much of the psychological research on metaphor ignores syntax at its peril, but the neglect spoils some of the insights of linguists too. ... the creation of metaphor, though cognitive, is accomplished by means of a linguistic procedure, and ... the syntactic realization will affect the semantics. (Goatly 1997: 198-199).

An applied cognitive approach to metaphor involves discussing metaphor's function in a real discourse context, and this, in turn, requires paying attention to its linguistic realization. This linguistic standpoint is useful for two reasons. In the first place, metaphorical expressions provide concrete data for accessing the cognitive process known as metaphor, and thus deserve a more detailed study than has usually been the case. Linguistic form may thus shed light on the knowledge involved in metaphor. Secondly, one of the requirements for a metaphor to be considered conceptually relevant (that is, conventional and widely used in reasoning) in cognitive linguistics is, precisely, its ability to yield stable and systematic expressions, and this cannot be determined without paying attention to the linguistic realization of metaphor.

This chapter deals with the specific syntactic patterns that instantiate the metaphors described in the previous chapter. These patterns are categorized according to the word class of the term realizing the metaphor. In other words, expressions are grouped according to whether the term used figuratively (what some researchers call the metaphorical *vehicle*) is a noun (e.g. a bridge referred to as a *thread*), an adjective (e.g. an urban context qualified as *tightly-knit*), a verb (e.g. describing an architect's work as *stitching*), or an adverb (e.g. describing a building as evolving *organically*). Counting the tokens of each metaphor yielded the percentage shown in Table 7 on the next page.

Table 7. Metaphorical patterns

Word class of metaphorical term	**Number of occurrences**	**% of figurative data**
Nominal metaphors	949	48.1%
Verbal metaphors	697	35.3%
Adjectival metaphors	310	15.7%
Adverbial metaphors	16	0.8%
Total	**1,972**	**100%**

Even a cursory glance reveals that nominal patterns are more prevalent than verbal metaphors, which in turn are twice as frequent as adjectival realizations. The significance of this and a description of each pattern type are addressed in the following sections.

1. Nominal realizations

Metaphorical nouns may appear as the heads of their respective nominal groups as well as in diverse pre- and post-modification patterns. The particular realization of each pattern, in turn, determines the role of metaphor at clause and sentence levels.

1.1. Noun heads

Figurative noun heads are used by reviewers to refer to the buildings and building elements discussed in the texts. This reference may be of different types according to whether the architectural referent (the target in the metaphor) is present or absent in the metaphorical expression or its immediate co-text. Thus, metaphorical nouns may provide the first and only reference to architectural entities for which there is no other term available and are therefore textually absent. This is prototypically illustrated by jargon terms which, as seen earlier, refer to various elements in buildings because of their functional resemblance (e.g. *skin*), their similar external appearance (e.g. *wing*), or a combination of both (e.g. *rib*). First reference may be also conveyed by less conventional terms, as shown in examples 1 and 2:

(1) The business-like Genetics Institute is oriented towards the street rather than the square, and *linked* to the lower Helix Gallery *by a 'ski slope'*. [2GENET~1.TXT]

(2) *Visitors enter through a glass-and-metal seam* between the copper-clad garage block and the elongated form of the house. [2INTHE~1.TXT]

In these passages, "ski slope" and "seam" refer to a structural linking element and to the entrance of a building respectively, emphasizing different traits of their external appearance. The absence of the architectural targets makes it necessary to resort to contextual – linguistic and/or world – knowledge in order to infer their referents, that is, what entities are capable of linking or being entered when talking about buildings.

The corpus also yields recurrent instances of figurative noun heads that play an attributive rather than a referential role within their nominal groups. Such patterns involve a nominal head post-modified by a prepositional group introduced by preposition *of*, as shown below:

(3) Holl's dialectic between typological conventions and the fetishism of craft is announced at the new entrance to the science center, a three-story tower that looms above *the reclining coil of the new exhibition wings*. [2BETWEEN.TXT]

(4) The private offices lining the street facade aren't particularly grand, and they bear the brunt of the façade's geometric irregularities, like *a sliver of a window* that tapers to a ridiculously small point. [225FLO~1.TXT]

(5) *A long slash of glazing* provides glimpses to the interior. [2DINING.TXT]

(6) When the Los Angeles firm Studio Works converted an office building in Milwaukee into a Montessori school, it found a simple, elegant shell beneath *the rabbit warren of cubicles*. [MONTES~1.TXT]

Despite linguistic form, the notional heads in these expressions are "exhibition wings", "window", "glazing" and "cubicles", which are qualified by "reclining coil", "sliver", "long slash" and "rabbit warren" because of the shapes and forms suggested by these entities.

Examples similar to these are discussed in Taylor (2002), where they are explained as exemplifying *appositional 'of'*.[45] Thus, Taylor explains a phrase like "a beast of a problem" as construing a relation in which "the first constituent is a so-called epithet; the epithet has a highly schematic

profile, with speaker attitude towards the profiled entity very prominent in the base. The second constituent elaborates the epithet's profile." (Taylor 2002: 238)

In other words, "beast" is used to characterize "a problem," whereas the latter elaborates (i.e., specifies) the type of beast at issue. Likewise, in example 4 "a sliver" functions as an epithet characterizing the type of window being described, whereas "window" is used to discriminate this particular sliver from others (e.g., the fragments resulting from breaking glass or wood). This epithet role may be more clearly perceived by comparing examples 3-6 to passages 7 and 8 below. These show a superficially similar structure, but illustrate the referential use of "valley" and "V":

(7) *The valley of the butterfly roof* compresses the space on the low south side and releases it to the view on the high north face. [2EARTH~1.TXT]

(8) The potentially endless shed arrives at a glass wall at each end, which of course floods the terminations of the volume with light, but luminance is carried through the whole place by skylights over *the V of the trusses*. [2CHORDS.TXT]

All the possessive constructions in 3-8 instantiate a relational predication of a whole and its parts, construing this relationship in different ways (i.e., foregrounding certain traits at the expense of others). Langacker (1991, vol. II) discusses possessive constructions as a group covering a variety of relationships ranging from ownership and part-whole relations to association or kinship relations. Irrespective of their linguistic instantiation, these patterns are explained as different ways of construing the relationship between a given entity (referred to as the *reference point*) and one of its properties (be they characteristics, kinship or possessions). In this regard, passages 7 and 8 can be explained as exemplifying an *ownership* relation since both the butterfly roof and the truss described have structural parts referred to as "valleys" and "Vs" after their resemblance with such entities (i.e., both butterfly roofs and trusses possess an element resembling the shape denoted by the terms used to refer to them). The expressions thus convey the prototypical relation between a whole and one of its parts underlying many possessive patterns of this type.

In contrast, although examples 3-6 also predicate something about a whole (i.e., the nouns in the of-phrases) in this case the predication involves attributes of the buildings of building elements as a whole rather than some

of their specific parts or components. Windows or glazing have no such things as "slivers" or "slashes", but the particular types of window and glazing are here described as *looking like* these entities, which are incorporated before the of-phrase in order to qualify the architectural elements whose external appearance or shape is thus foregrounded. In other words, the overall shape of a coil, a sliver, and rabbit warrens is mapped onto the overall shape of the nouns qualified by these expressions (i.e., exhibition wings, a window and cubicles). The syntactic realizations of these image mappings thus highlight – call attention or profile – a property of the entities referred to in the of-phrase by fronting it (that is, by instantiating it as the head of its nominal group). In short, linguistic form draws attention to what architectural arrangements look like, rather than referring to the different parts making up the whole.

Finally, metaphorical nouns may also function as anaphoric devices referring to a previously mentioned architectural entity. Thus, as well as working at the service of textual cohesion, they further qualify their referents, and fulfil both a referential and an attributive function. This is illustrated in examples 9-12, where "this dockside behemoth", "that blend", "this drum", and "a couple of squashed zeppelins" refer readers back to the warehouse, private house, balcony, and roof assessed in the texts while, at the same time, highlighting an outstanding attribute – usually related to external appearance – of these entities:

(9) Measuring some 700 feet long by 80 feet wide, **the new structure** is heroically scaled, and in both form and materiality draws on Nagasaki's historic shipbuilding traditions. RoTo's original brief was to embellish the exterior of *this dockside behemoth* ... but the practice proposed that some public space should also be introduced. [2DRAGON.TXT]

(10) Myers also achieved vigor by separating the bedrooms from the steel living volumes; the served-and-servant strategy of juxtaposed, short and tall volumes allows him to join **the typologies of loft and house**. The architect then splices *that blend* into the tradition of the steel house, which had evolved before the concept of lofts rooted in contemporary life. [2CUSTOM.TXT]

(11) **A little circular balcony** flies over the exhibition area supported by a diagonal steel beam, and acts as an amusing adjunct to the foyer of the round auditorium. Externally, *this drum* is decorated with blue and white ... [2ROYAL~1.TXT]

(12) But the complex really makes its mark because all this rather mundane stuff is surmounted by **a most extraordinary roof**. *A couple of squashed zeppelins* hover over the solid structures. [2GOLF.TXT]

Likewise, metaphorical heads may work as cataphoric devices. This is the case of figurative nouns in the titles of reviews like *Regenerative Journey, Dragon Promenade, Tapestry Weaving, Magic Bubble, Box of Tricks, Golf Umbrella, Ship of Culture, Sacred Box* or *Nordic Lantern*. Such expressions only incorporate the source in the metaphor, leaving the target to be found during the reading of the subsequent text, which clearly refers to the building under examination.

1.2. Pre-modification patterns

Particularly arresting is the case of figurative nouns in nominal pre-modification (N + N) patterns. Most such combinations instantiate image metaphors where the overall shape of the source entity is mapped onto the overall shape of the target entity. As illustrated in the passages below, the figurative term usually behaves as the pre-modifier in the noun group whereas the target in the metaphor appears as its head:

(13) *Rugged 'tree-trunk' columns* and rough sawn internal planking combine with furnishings of cherry, oak and leather to exude rustic homeliness and warmth. [2RUSTI~1.TXT]

(14) The massive walls support corrugated steel *butterfly roofs* with inverted gables ... [2EARTH~1.TXT]

(15) Fiberglass *strip skylights* in the ceiling above the vast double-height space mark *the pinwheel plan*. [2LASER~1.TXT]

(16) 3 million Philmon Library, which opened in January 1998, will be engulfed by a hodgepodge of gas stations, convenience stores, muffler shops, and *big-box retail centers*. [TIGHTB~1.TXT]

(17) *A glass-box café*, inserted along the south edge of the site, faces north. [2CHIFLEY.TXT]

Imagistic pre-modifiers may work at the service of both description and classification, and, therefore, the different instantiations need to be analyzed within their discourse contexts to see which function is predominant in each case. Thus, examples 16 and 17 above illustrate the descriptive or qualifying role of the pre-modifier (i.e., 'big-box' and 'glass-box' qualify

the buildings at issue, yet do not refer to a specific type of retail shop or café) whereas "tree-trunk columns", "butterfly roofs", "strip skylights" and "pinwheel plan" in passages 13-15 exemplify the classifying role of the nominal pre-modifiers in their respective expressions (i.e., the nominal pre-modifier selects a particular type of column, roof and skylight from all other possible items in their respective sets).

Among those other cases in the corpus with a clear classifying function, we find *bowstring truss*, *ring beam*, *wheel arch*, *sawtooth roof*, *V truss* or *curtain wall*, all conventionally used to refer to specific types of truss, beam, arch, roof and wall respectively. Indeed, typological classifications of construction elements in architectural discourse often rely on visually driven metaphors instantiated in N + N compounds. Consider, for instance, a typology of vaults comprising the following classes: *half-barrel vault*, *barrel vault*, *corbel vault*, *fan vault*, *groin vault*, *net vault*, *spiral vault*, and *stellar/star vault* to mention but a few. The first noun in compounds like these characterizes the thing denoted by the second noun in the compound in terms of a stable, inherent property to the extent that each new compound denotes a specific instance of the modified entity (i.e., of a type of roof, vault or any other entity thus designated). Through use, each pair has become to refer to a differentiated thing in architectural discourse and, therefore, can be regarded as a single lexical unit or compound. In general, the imagistic compounds of this kind are *endocentric* compounds in the sense that the referent is designated by one of the elements in the compound, typically the second noun. This second term is the *profile determinant* since the composite structure inherits most of the characteristics designated by the noun (Langacker 1991), whereas the first term in the compound foregrounds a trait that further specifies the referent or categorizes it (Clark and Clark 1977; Ryder 1994).

According to Ryder (1994) the process of creating new N + N compounds basically involves a speaker choosing a noun to be the profile determinant and finding a second noun to further specify it. In architectural discourse, metaphorically motivated compounds are mostly concerned with physical appearance, and follow a similarity schema that may be formalized as X IS SIMILAR TO Y IN SHAPE (as in "tree-trunk columns" discussed earlier).[46] The resulting combinations usually play a classifying role, and have furnished architectural jargon through recurrent use. Moreover, once compounds like *butterfly roof*, *sawtooth roof* as well any other type of roof thus referred to have become fully established in architectural discourse, both the speaker and the listener/reader have a stock of constructions or linguis-

tic templates at their disposal to both create and understand new compounds based on an analogy with existing conventional ones (Langacker 1987, 1991; Ryder 1994). The construction typologies in architectural discourse mentioned earlier might, in this sense, be endlessly enlarged as needed.

In turn, the recurrent collocation of nouns such as *box*, *strip* and *slit* with noun heads denoting buildings and their parts (e.g. a window) may well point to the potential of certain terms for compounding in architectural discourse, the resulting combinations also playing a clearly classifying role. Given the fact that these very nouns also often appear in the appositional-of patterns discussed earlier, we may as well hypothesize the potential of such patterns to be re-used or re-combined into a different, yet related nominal pattern – in this case, into N + N compounds. By way of illustration, consider the following passage from the corpus:

(18) Although the city wanted a full-scale supermarket, it would have been impossible to fit the required sea of parking on the site. Zapata's solution to the problem is startlingly simple, despite its theatricality. He stacked two levels of parking above *the basic box of the store* (Publix didn't let the architect touch the interiors) and added elevators, stairs, and ramps along the street face to connect the parking decks to the market. Zapata wrapped these elements in a sleek, aerodynamic shell of steel and glass that encloses a soaring, three-story-high vestibule grafted onto the street front. The architect completely breaks *the traditional supermarket box*, yet respects its purity as a typological form enough to keep his manipulations distinct from it. "We wanted to show the space as an addition to *the basic box*, making it obvious that our piece was not connected," explains Zapata. Even the sweeping concrete ramps that lead to the parking levels cantilever from the rectangular container to emphasize their additive nature. [2WINDOW.TXT]

In this extract we find a first qualification of the supermarket at issue (literally, a "rectangular container" as explicitly pointed out at the end of the passage) by means of the phrase "the basic box of the store." As described earlier, this expression qualifies the general shape of the supermarket *via* the imagistic noun before the of-phrase. This is later rephrased as "the traditional supermarket box" or, simply, as "the basic box", a rephrasing that involves reusing the most salient attribute of this particular store (i.e., being *boxy*) in order to refer back to it in the subsequent text. For this reason,

Ryder (personal communication) suggests labeling such compounds as *quasi-anaphoric* or *long-distance anaphoric* compounds since they refer to something introduced earlier in the discourse by reformulating some of the expressions previously used in a new way.[47]

The phrase "supermarket box" may also be helpful to illustrate a second type of nominal pre-modification patterns found in the corpus. Here the image providing the source in the metaphor appears as the nominal head in the compound, and the referent or target term in the metaphor behaves as the pre-modifier. As exemplified by "supermarket box", the (literal) pre-modifier always focuses on the functional aspects of the architectural entity thus modified, while the figurative head highlights its external appearance. This is further illustrated in the examples below:

(19) A kitchen behind the social hall connects to the residential wing, which subdivides into *three dormitory pods* along a west-facing veranda, with east-facing verandas between *each pod. ... A fourth dormitory pod* tucks into a basement level at the south end. [2BETWE~1.TXT]

(20) *Smaller vertical window slits* are intermittently cut into the concrete flanks, forming an abstract pattern along the Calle Antonio Machado. [2THEAT~1.TXT]

(21) The insularity of the courtyards gives respite from the sprawl of a modern campus and *the retail strip* that flanks the site. [2CHROM~1.TXT]

Compounds like these, although less common than the type commented earlier are intriguing in several respects. In the first place, contrary to the norm in English, the pre-modifiers in the examples above do not qualify or classify their noun heads. Rather, they *name* them, or, to use Langacker's terms, are the profile determinants in the compound: "dormitory", "window", and "retail" actually designate the architectural entities referred to by the expressions, thus departing from the prototypical functions fulfilled by the first noun in other English compounds. Indeed, the expressions above would be equally comprehensible without the terms that presumably behave as the heads in the compounds ("pods", "box", "slits", and "strip").

These nominal patterns may well exemplify what some researchers refer to as *deictic* compounds, that is, novel compounds created ad-hoc to satisfy a discourse need (Downing 1977; Ryder 1994) and, therefore, highly dependent on context (both verbal and non-verbal) in order to be understood.

As concerns the production of such compounds, these appear to illustrate the tendency of architects to use geometrical proper or geometrically biased terms to refer to structural elements in a building. This tendency is not only congruent with their disciplinary training, but also points to the existence of some of the metaphorical schemas underlying their practice and discourse commented earlier (e.g. malleability metaphors instantiated by terms such as *slits*, *slashes*, *cuts* and the like to refer to functional elements in buildings). The choice of these terms may also well illustrate the visual bias of the discipline: the choice of *slit* as the profile determinant to designate a functional element such as a window somehow calls attention to the aesthetic side of contemporary architectural practice, rather than to its functional-only concerns.

Treating the compounds as resting upon the prototypical English right-handed template suggests a creator who regards geometrical entities (slashes, slits, slots, boxes, wedges and the like) as the concrete, factual entities or *types* involved in his/her work; these types are further specified whenever necessary by means of nominal pre-modifiers focusing on one of their properties – in this case, function. Should this be the case, we might tentatively regard the pattern as susceptible to gradually acquiring the status of a established compound through use, that is, as giving rise to a cognitive and linguistic template in architectural discourse underlying N + N compound families similar to the already-existing ones (e.g., vault or roof typologies). In this regard, the difference between a window being referred to as a *slit window* or a *window slit* is that the former designates an entrenched architectural element characterized in terms of a stable, inherent property, which motivates the jargon status of the compound in the language of the discipline (as also happens with other types of window). On the other hand, designating a given spatial opening as a *slit* and pre-modifying it by means of *window*, *door*, or any other term indicating function implies that the entity referred to in such imagistic terms may fulfil any of the functions referred to by the pre-modifier according to the various requirements at work in building design, but is far from being conventional in the discipline.

A different question concerns the understanding or interpretation of such novel or deictic compounds. As pointed out earlier, one of the distinctive properties of this type of compound is their context dependency. This is evident when attempting to interpret expressions like *window slits*, *dormitory pods* or *retail strip* without taking into account their context of occurrence. The visual component of the genre (photographs and drawings)

plays an important role in this respect. Thus, the referent of *window slits* can be easily spotted once we take into account the photographs of the building, some of which explicitly display the building elements designated in this way.

The other two expressions are less easy to understand given the absence of any graphic or verbal cues in their respective texts (e.g., the previous comparison of the dormitories or retail centre at issue with *pods* or a *strip*). In both cases, their referents need to be inferred through linguistic and extra-linguistic knowledge. For instance, in the case of *retail strip* the usual collocates are *shop* or *centre*, while in the case of *pod* these would be *seed* or *fuel*. In each case, the unusual collocation may challenge the understanding of someone outside the community of architects. Likewise, an outsider might interpret *supermarket box* in example 18 in a way radically different from its sense in the passage. This is due to the somewhat ambiguous – or polysemic – nature of the compound, which may refer either to a typical container provided in supermarkets to carry and store our shopping or, as in the passage, to a concrete building typology. In contrast, given the abundant use of *pod*, *box* and *strip* to describe spatial arrangements in many of the architectural texts any given architect has access to, she/he may well understand the expressions above even in the absence of any clue in the particular text where she/he finds them.[48] The *context effects* invoked by Ryder (1994) in the interpretation of deictic or novel compounds, thus, imply a notion of context somewhat broader than the specific textual context of occurrence of any given compound. For, as she well points out

> today's context is part of tomorrow's meaning. A person's expectations about the instantiations of *tiger* are based on all the experiences in which he has been exposed to *tiger* before, and on the various schemas that have been developed across those experiences. When presented with a novel combination of established forms, such as a new compound, a listener will automatically generalize across knowledge from all the previous contexts in which he has experienced the two words, and any other linguistic experiences he perceives as similar, in order to create an interpretation compatible with whatever contextual information he has. (Ryder 1994: 87)

Cases such as these provide clear evidence of the need to adopt a situated perspective on metaphor and its diverse linguistic realizations: decontextualized, the explanation of how an apparently deviant expression like *dormitory pods* is understood may prove erroneous or, at best, over-

simplistic. A different issue is whether they will acquire the conventional, *template* status of those belonging to architects' conventional language (e.g. *sawtooth roof*) through repeated, consistent use.

1.3. Post-modification patterns

Architectural metaphors are also instantiated in nominal patterns that fulfil a post-modification function, even if some of these may appear thematically fronted (e.g. passage 23 below). Post-modification patterns involve appositions, and like- or as-phrases modifying verbs or adjectives, all of which are mainly concerned with furnishing further qualification of the architectural entities in the expressions. Both patterns are shown below:

(22) The synagogue proper, *a truncated star with a blocky ark*, ... is finished almost crudely. [2OUTOF~1.TXT]

(23) Overscaled but delicate, provocative yet serene, *a concoction of opposites*, this urbane container for books and media both celebrates and rejects its place in the matrix of time, space, and commercial culture. [TIGHTB~1.TXT]

(24) Eluding easy understanding, Van Berkel & Bos's design works *as a piece of environmental braille*, with light, textures, and shifting planes that cue changing interpretations of its form. [INFINITE.TXT]

(25) Beneath [the skylights] a bonelike cage of steel ribs, controlled by pneumatic struts, can open and close *like an eyelid*, revealing the sunken, tile-encrusted orb of the IMAX to the outdoors. [2BUILD~1.TXT]

(26) Hovering *like a gargantuan blancmange* above the Greenwich Peninsula, the Millennium Dome is now an inescapable part of the London skyline. [MAGICB~1.TXT]

Like- or as-phrases are, technically speaking, non-literal comparisons. They usually match two disparate entities according to their similar appearance (examples 22 and 26) or function/behavior (examples 24 and 25). The source terms function as the heads of the groups introduced by *like* or *as*, and the whole group highlights the traits regarded as shared between the two entities involved in the expression, and conveyed by the verbs and adjectives thus modified. Since these verbs and adjectives, in turn, may also realize a metaphor, the expressions often display interesting figurative

combinations. Thus, in example 25 we find the "cage of ribs" in a building (itself an example of image-motivated jargon) first compared to bones because of their similar appearance or consistency, and, later, to an eyelid given their similar function of preventing or allowing egress or closure. The comparison to an eyelid is further reinforced by referring to an element within the IMAX complex as its "orb", although here it is shape rather than motion that appears to be stressed. Similarly, the building in 26 is unflatteringly portrayed as a "gargantuan blancmange" based on its external shape and color. The adverbial group complements the verb "hover" in spite of the fact that blancmanges cannot hover, so we have to regard the verb as metaphorically conveying the effect caused by a huge imaginary blancmange upon the observer. It is this effect that is compared to the one created by the Dome.

1.4. Subject complements

Finally, metaphorical nouns are also found as the heads of subject complements in intensive patterns. These incorporate both the source and target in the metaphor, fully illustrating the conventional metaphor notation A IS B. In fact, this formula subsumes a number of copular patterns that may incorporate verbs other than *be*, all of which add something to the metaphorical expression via their own semantics, an aspect unfortunately downplayed by the conventional notation.

The importance of the impact of the copular verb used in metaphorical expressions has not been totally ignored, however. Goatly (1997: 186-189) shows how certain patterns are more subjectively biased than others because they incorporate verbs related to perception processes (e.g. *seem*, *look*, *sound*, *taste* + like/as though/as if), cognitive processes (e.g. *believe*, *think*, *regard*), or verbal processes (e.g. *say*, *call*, *refer to*), all of which point to the agent behind the expression. In contrast, copulas such as *be*, *become* or *turn into* lack this subjectivity, and hence, may feel more assertive and more objective. In this sense, the most extreme case of an unmediated relationship between source and target in copular metaphor would involve the verbs *be* or *become*, whereas the weakest or most mediated link would be represented by sense, perception, and appearance verbs.

Although the verb *be* may appear more neutral than perception verbs, the expressions incorporating it must also be ascribed to a human agent

(however hidden) stating that a given entity *is*, for instance, *a machine* or *a glowing lantern*, as in the following example:

(27) By night, *the Magic Room is a glowing lantern* atop the pleated, luminous facade. [CP25FL~1.TXT]

Indeed, the type of verb in a copular metaphor may well be determined by the quality of the information metaphorically conveyed, a point not addressed in Goatly's (1997) discussion, yet suggested by the copular patterns found in this corpus. Thus, among the 80 cases of copular metaphor in the reviews, 28 instantiate non-visual metaphors (portraying buildings as machines, books or experiments), and always incorporate the verb *be* in the metaphorical expression. In contrast, the 52 instances of visually informed metaphors are distributed as follows

– expressions with copulas *be* or *become*	46.15%
– expressions with resemblance verbs	23.08%
– expressions with reporting verbs	19.23%
– expressions with perception verbs	11.54%

If we consider the intensive pattern A IS B as the formal representation of an attributive process, copulas other than *be* or *become* taken as a whole are more numerous than the aforementioned default one. The high percentage of perception and resemblance copulas is compliant with the specifics of the metaphors they help realize, all concerned with what buildings look like as perceived by the agent responsible for the expression. In contrast, since conceptual metaphors are essentially concerned with qualifying buildings according to their behavior and/or relationship with other structures or contexts, the norm is to find copular patterns with *be*.

Finally, together with being consistent with the visual quality of certain metaphors, resemblance, perception, and, above all, reporting verbs also appear to be at the service of authorial commentary and positioning. Consider the following passages:

(28) This prismatic shape "*looked sharper and more Manhattan*" to de Portzamparc [the architect] than his earlier schemes of stacked cylinders, "which were more mannerist and unlike New York." [225FLO~1.TXT]

(29) *Hecker* [architect] also *sees the five-part form as a hand opening in a welcoming gesture*. [OUTOFT~1.TXT]

Here verbs *look* and *see* not only link the two entities in the metaphor. They are used by reviewers to ascribe such figurative renderings of buildings to a source other than themselves, therefore disengaging themselves from those appreciations. For in the passages above the descriptions of buildings as "Manhattan-like" or "open hands" belong to their respective architects, the metaphors thus conveying their personal views rather than that of the reviewers. In this regard, copular expressions may be seen as illustrating diverse degrees of subjectivity, and authorial commitment, and, therefore, conform part of the interpersonal strategies in the genre (cf. Chapter 7).

2. Verbal realizations

Earlier in this book, we saw that reference to design procedures as experimenting, making cloth or writing often implied a concomitant view of architects as experimenters, cloth makers, or writers, and of buildings as experiments, pieces of cloth/clothing or texts. In other words, the participant roles in the semantics of some the verbs involved in metaphors dealing with architects' work contribute to their broader figurative scope. Indeed, the expressions incorporating these verbs often activate a rich set of implications, as illustrated in the following passage where "written" suggests, among other things, that the architect is a writer and that the building is some kind of textual artifact:

(30) As a child, he spent many summer nights on this property, in just such a shed, and *his love of the type is written all over the new house.* [STUDIO.TXT]

In contrast, verbs realizing machine or organic metaphors activate inferences exclusively concerned with buildings' functional properties rather than with the agent or process involved in their construction:

(31) *The building maximises* passive solar energy and ambient conditions *to achieve* comfort without air conditioning. [2ELIZA~1.TXT]

Finally, one of the most recurrent and interesting figurative patterns in architectural discourse is the type of expression that describes, in dynamic terms, the way buildings are sited or the way certain elements are arranged within the built whole. This is the topic of the ensuing section.

2.1. Motion constructions

The review corpus yields 282 verbal instances where buildings and building parts are qualified according to how they appear in their respective spatial contexts. The 95 verbs involved in the expressions are the following:

> address, angle, arch, be anchored, be located, be set, be sited, blast, bunch up, butt, cantilever, cascade, clamber, climb, corbel out, crank, crouch, curve, descend, dominate, double, ease, embrace, emerge, expand, extend, face, fan, flex, float, flow, fly, fold, funnel, go, heave, hover, hug, inch, lean, lie, line, list, look out, loom, loop, meander, meet, melt, move, nuzzle, overlook, oversail, perch, poise, project, punch, push, radiate, rake, ramp, reach, rest, ring, rise, run, sandwich, scissor, settle, shift, sit, slide, slip, slope, soar, spill, spin, splay, sprawl, spread, stand, step, stretch, surge, sweep, thrust, tilt, trail, travel, triangulate, tuck, tumble, unfold, weave, wind

These verbs occur in expressions that appear to fall into the relational predication pattern A IS IN B discussed by functional linguists, although, as has been noted, the main focus of description is not solely location but also, and most importantly, what buildings look like in their respective contexts (the expressions highlighting the sense of motion suggested by that appearance).

As can be appreciated in the list above, the relationship between the building and its site may be described in more or less dynamic terms depending on the different verbs employed in the expressions. In fact, these verbs fall into three types. A first set comprises verbs like *lie*, *sit*, *rest*, *settle*, *perch* or *stand*, which portray buildings as they really are: static entities.[49] Despite the lack of dynamism prototypically expressed by these verbs in most contexts, some of them may also help convey a certain sense of motion. This is the case of the verb *tuck* below, which appears in the active voice rather than in the more typical passive voice (e.g. *the building is tucked*) and, thus, portrays the building under focus (figuratively referred to as "a dormitory pod") as effecting some kind of forward motion into an adjacent structure:

(32) A fourth *dormitory pod* [volume in a built complex] *tucks into a basement level* at the south end. [2BETWE~1.TXT]

A second group comprises verbs like *tilt*, *lean* or *list*. Many of these are used to portray inclined or bent static position rather than dynamic scenes. However, as with the previous group, the prepositional phrases complementing them may also contribute to endowing the whole expression with a sense of motion:

(33) The pace gathers towards the building, *the paving tilted down slightly to a secret gutter before tilting up again in front of the multiple doors in the corner.* [2SPEAK~1.TXT]

(34) *A glass enclosure leans toward a shallow reflecting pool,* while *a fountain of water sandwiched between leaning planes of glass trails in the structure's wake.* [2WOOD.TXT]

In this second set, we find verbs derived from nouns like *bunch*, *crank*, *cantilever*, *corbel*, *ramp*, *rake*, *arch*, *triangulate*, *fan* or *scissor*, all of which acquire a motion sense via particles and prepositional phrases:

(35) Freed of their structural imperatives, *the square columns bunch up and spread out at will.* [2CHURC~1.TXT]

(36) Despite the external complexity, the basic parti of the bank building is a three-sided doughnut, *with corridors that triangulate around a light* well that is glazed at the bottom to illuminate a small banking chamber on the ground floor. [2HIDDE~1.TXT]

The third group comprises motion verbs proper like *fly*, *rise*, *soar*, *heave* or *tumble* among others. If we regard this third set and the previous one as concerned with motion (although this may be potential rather than actual), the number of instances rendering buildings as dynamic entities outnumbers those portraying them as static artifacts. The corpus evidence in this regard is clear: only 94 instances of static constructions are found, in contrast to the 183 cases of motion constructions. The preference for commenting upon buildings in dynamic terms is unmistakable.

A brief look at the syntactic working of motion patterns in spatial descriptions further reveals their idiosyncrasy, particularly when compared with the grammatical behavior of patterns expressing motion proper. For instance, when verbs such as *rest* or *run* predicate something about a human agent, they allow for diverse syntactic constructions. They admit both progressive and non-progressive aspect, and may appear with various types of complements (locative or temporal adverbial constructions) as well as

with zero complement if the context or co-text supplies the missing information. Thus, sentences such as *my friend is resting/rests* or *my friend is running/runs*, even if they convey minimal information or feel somewhat odd without complementation, sound perfectly normal (i.e., grammatical) in appropriate contexts (for instance, if we ask *What does your friend do after lunch? She rests*).

In contrast, it is rare to find the progressive aspect used in spatial descriptions (e.g. *The building is running along the street*) since the verbs are concerned with permanent, atemporal states rather than change in time. Given the attributive role of the expressions (i.e. their focus on qualities rather than processes), non-progressive aspect seems the best option. This does not mean, however, that the verbs may not occur in the progressive form in certain cases. Indeed, the corpus yields a few cases where the progressive appears to have been chosen for rhetorical rather than semantic reasons.[50] This is the case of the following examples:

(37) *Gallery stepping up to orangery.* [CPPAST~1.TXT]
(38) *Running along the center of the exterior shell* is an enormous poured-in-place concrete arch spanning 90 meters, with shallower arches placed parallel on each side. [2BUILD~1.TXT]

As shown here, the progressive may be used for the sake of economy in the captions of the visuals illustrating the commentary in the main text (economy which also motivates the ellipsis of auxiliary *be*), and whenever the verb is thematically fronted – the latter case further evidencing the descriptive (i.e. attributive) rather than narrative purpose underlying the use of motion verbs in architectural discourse. Incidentally, this attributive role is also exemplified by the numerous cases where the *-ing* form of the verbs is used to pre-modify spatial ensembles, as in *sprawling building*, *looping volumes*, or *sweeping arcades* – to list but a few of the many instances found in the corpus.

Likewise, although this attributive role seems to rule out the ellipsis of the verb complements in the expressions, in certain cases motion verbs may occur devoid of complementation. This is the case of examples 39 and 40. Thus, although both "emerge" and "rise" are usually complemented by prepositional phrases, here they are found alone, the source and goal of the trajectory conveyed by the verbs remaining, in this case, implicit. Again, the absence of prepositional phrases further specifying the direction of the movement designated by the verbs may respond to rhetorical issues. This is

illustrated by example 40, where this absence may be explained as dictated by the space constraints in captions. In turn, the use of "emerge" in 39 could be seen as playing with some kind of ambiguity, for the verb might also have been used to convey ideas of 'becoming evident' or of revelation rather than upward motion solely:

(39) A huge prismatic monolith is supposed *to have emerged*: a mass of rock bearing a crystal (which becomes a look-out point for views over the rivers and the great bridge over the Humber). [3OCEAN~1.TXT]

(40) Telescoping struts *lift and lower* the glass skin, *folding it outward as it rises.* [CPBUIL~1.TXT]

All in all, however, ellipsis of the complement is not often found in the corpus. This is because fictive motion patterns in architectural discourse articulate a relational predication pattern between an entity A (the building) and an entity B (its site or surroundings) whereby some quality is attached to A *via* the predicator in compliance with its relationship with B. Therefore, the expressions usually incorporate all the elements involved.

The constructions found in the corpus typically consist of a nominal group, a verb, and complements realized either by prepositional phrases or by nominal groups. Both types of complementation are illustrated below:

(41) *A concrete stair weaves between the structural supports and an undulated gunnite roof.* [CPGLAS~1.TXT]

(42) *A little circular balcony flies over the exhibition area* supported by a diagonal steel beam, and acts as an amusing adjunct to the foyer of the round auditorium. [2ROYAL~1.TXT]

(43) *Large departments embrace two atria* and each atrium can be enlarged to form nodes for collective student activity that punctuate the campus. [2CAMPU~1.TXT]

(44) *Looping roof of hall* (top) *meets sloping roof of kitchen block* in columnar metal drainpipe. [CPBETW~2.TXT]

Passages like these pose difficulties for labeling or characterizing their constituents in agreement with grammatical convention, as acknowledged by functional approaches to the phenomenon (cf. section 2.3. in Chapter 5). Thus, regarding the prepositional phrases "between the structural supports" and "over the exhibition area" (examples 41 and 42) as circumstances might imply their non-participant role regardless of their indispensability in

the clause. Put in another way, classifying them as circumstantial complements suggests views of such phrases as lying somewhere between typical complements (i.e., subject or object complements) and typical adverbials (i.e., adjuncts).

In order to avoid this somewhat ambiguous role ascription, Fawcett (1987) has proposed the treatment of prepositional phrases like those above as realizing a locational role, while noting their participant status on equal terms with the nominal participant(s) before the verbs. Likewise, Langacker (1987: 306-310) regards the prepositional phrases occurring with verbs such as *be*, *put* and the like as *relational complements* – the explanation provided being, in this case, more general in that it does not specify whether they are subject, object or predicator complements. These complements enjoy a participant status (in functional grammar terms) since the relation thus expressed or profiled cannot be understood without them, the verbs involved being, in Langacker's view, dependent on the prepositional phrase which, in this sense, is crucial for elaborating the structure or relation verbally introduced.

A more complex situation is exemplified by "two atria" and "sloping roof" in passages 43 and 44 above, both occurring after material or transitive verbs and, therefore, apparently behaving as direct objects within their respective clauses. However, neither "embrace" nor "meet" are used to convey the action of some agent upon a participant other than itself, but describe the way in which two spatial arrangements interact. The analytical difficulties in this second pattern are greater since such expressions cannot be understood without also taking into account the verbs involved. Indeed, "embrace" and "meet" are crucial in order to understand that the description concerns encircling and continuous spatial structures respectively.

In this sense, the problem of characterizing the verb modification as direct objects, attributes, or locatives is that each role implies a particular type of verbal process. Yet, all in all motion expressions in architectural discourse realize a similar attributive (relational) pattern regardless of the role constraints of the verbs involved in other discourse contexts – and, therefore, of the syntactic labeling of the clause constituents in certain frameworks and widely used grammars. For, as illustrated in the examples above, verbs like *run*, *fly* or *weave* do not realize a material process (that is, do not denote actions) but a relational process, as happens with clauses with prototypical relation verbs such as *be*, *resemble* and the like. Moreover, the relation thus conveyed covers both location and what built structures look like in their sites, and this mixture of place and appearance arises from a

holistic interpretation of building plus verb plus verb complementation. The overall meaning and structure of motion patterns, thus, depends on what occurs before and after the verbs as well as on the verbs themselves – all equally critical in the dynamic and graphic construal of the predication or relational patterns in architectural texts. Put in more cognitive (Langacker's) terms, the relation between a trajector and a landmark profiled in the fictive motion constructions found in architectural commentary cannot be understood without taking into account both verb and landmark and, in many cases, the trajector itself. Before taking this point further, consider the following typical locative construction:

(45) The bank is in the middle of High Street.

If we compare the description above with the one articulated in a sentence like *The bank runs* [i.e., is sited, lies, or *is*] *along the north side of the site*, this latter expression may be seen as superficially realizing an A IS IN B relational or locative pattern similar to the one illustrated in 45. However, this sentence only tells us that a bank is in a particular location, yet provides no other information about it. The verb plus prepositional phrase combination is, in this regard, solely concerned with conveying information about the whereabouts of this particular bank. In contrast, "The bank runs along the north side of the site" (as also happens in non-architectural descriptions of roads *running along the coast*) not only tells us the specific location of a bank, but also helps us imagine what it looks like, telling us that it occupies space in a continuous, uninterrupted manner. In other words, both the complement *and* the verb express a quality of this particular building and, hence, play a qualifying role.

In fact, fictive motion patterns in architectural discourse are also somewhat different from those discussed by cognitive scholars found in general discourse. For instance, the latter often concern elongated entities whose path-like configuration is profiled in expressions like *The road runs along the coast* or *The fence goes along the street*. The typical elongated or path-like configuration of roads and fences explains the use of verbs like *run* or *go* as well as complements incorporating prepositions *along* or *from-to* describing the imaginary distance covered by the entity thus described. In contrast, in architectural discourse a verb like *run* is not only used to qualify elongated buildings or building parts, but mostly, uninterrupted space. Thus, in example 46 *run* occurs with "round the whole box", invoking encircling rather than elongated shape, highlighting the lack of obstacles in

the imaginary motion of the "slot" at issue. Interestingly, this "slot" is, itself, a void: it refers to the glazing or window system in the building. Yet, the expression is concerned with the lack of any other spatial element interrupting the flow or continuity of that void – of space after all:

(46) A huge green parallelepiped initially appears to be almost inviolate, except for *a deep horizontal slot which runs round the whole box,* about two-thirds of the way up. [2MONTA~1.TXT]

In this sense, the main difference of fictive motion patterns in general discourse and those found in architectural texts lies in the verbs involved in the expressions. Indeed, verbs in spatial descriptions play a critical role in drawing attention to the concrete characteristics of the spatial arrangements commented upon by the expressions and, in this sense, are crucial for understanding these. Verbs may, for instance, foreground the building's size or bulk (e.g. *sit*, *rest*, *crouch*), the combination of height and verticality (e.g. *loom*, *stand*, *rise*, *soar*, *heave*), or continuous, uninterrupted spatial presence (e.g. *flow*, *run*, *sweep*, *travel*, *trail*). The examples below illustrate these three sets:

(47) *The green prism crouching among neo-Corbusian mediocrity.* [CPMONT~1.TXT]
(48) On the south-east face, *a spindly steel framed* cylinder hung with bells (an abstraction of a traditional campanile), *soars above the surrounding jumble of roofs.* [2SACRED.TXT]
(49) The interior is organized around *a central circulation spine, which travels the entire 960-foot length.* [2ISOZAKI.TXT]

Furthermore, verbs may also highlight particular properties of the site occupied by the building, or of the space filled by an element within the whole, especially the small size or difficult nature of its site. These problems of space are illustrated in passages 50 and 51, where "tucked" and "sandwiched" highlight the tight, narrow quality of the space occupied by a building and a fountain respectively. In turn, examples 52 and 53 point to some of the difficulties involved in erecting buildings in certain places:

(50) *Tucked between existing structures on a tight site*, the addition dramatically captures daylight; graciously giving the structure an open-

ness which allows eastern morning light to illuminate a central sculptural staircase. [2MARSH~1.TXT]

(51) A glass enclosure leans toward a shallow reflecting pool, while *a fountain of water sandwiched between leaning planes of glass* trails in the structure's wake. [2WOOD.TXT]

(52) It houses *the campus radio station, perched apparently precariously over the south and west edges*. [2MONTA~1.TXT]

(53) [Built complex] consists of *two giant linked conservatories* (biomes) *which clamber up the crags on the northern side of the pit.* [2EDENP~1.TXT]

Talmy (1983, 1996, 2000) has drawn attention to the expressive properties of the motion patterns illustrated above in languages such as English, referred to as a *satellite-framed language* and contrasted with *verb-framed languages* like Spanish. He has explained that in English motion verbs often encode a range of information concerning both type of movement and manner, yet need an adverbial (the satellite) to convey the direction of that movement (e.g. *The boy crawled into the room*). The situation is reversed in Spanish, where verbs are mainly concerned with direction, and express manner by means of adverbial phrases or constructions playing an adverbial role (e.g. *El chico entró en la habitación a gatas/gateando*). Of course, manner is evidently not a unitary concept (Slobin 1996). Among other things, it may refer to the motor properties of motion (e.g. *walk* versus *crawl*), rate (e.g. *walk* versus *run*), attitude (e.g. *walk* versus *stroll*), or the medium where motion is effected (e.g. *walk* versus *swim*). Such manner differences in motion verbs are also applicable to related constructions in architectural descriptions, provided that we bear in mind that manner here does not relate to motion but, rather, to external appearance or what built structures look like. By way of illustration, consider the following examples:

(54) *Not only do the masonry blocks inch out from the vertical plane as they rise,* but the courses – exposed on the interiors and exteriors – are laid at an angle to the floor, recalling rock strata that have shifted over time. [INTHEA~1.TXT]

(55) *On the dockside, the extrusion cranks over the warehouse* volume to create an elegantly fractured canopy made from nautical canvas and ribbed steel sheeting stretched over blue steel trusses. [2DRAGON.TXT]

(56) [Architect] built each roof as a permanent shallow pool and, together, *the half dozen roofs step down the hillside like terraced reflecting ponds.* [2CUSTOM.TXT]

In passage 54, the slow manner of the motion conveyed by "inch out" needs to be related to the progressive outward projection of the blocks described, as this is visually perceived. Likewise, the canopy or roof in 55 is designed in the shape of a crank rather than effecting actual zigzagging or rotary motion. Finally, "step down the hillside" in 56 captures the terraced arrangement of the roofs of a private house, an appearance made explicit in the like-phrase.

Indeed, the choice of some verbs in these descriptions appears to be determined by the type of building predicated. For whereas any sort of building may be well described as *lying*, *sitting* or *resting* in its site, verbs such as *stand*, *dominate*, *overlook*, *emerge*, *loom*, *sweep* or *heave* generally cooccur with buildings or building elements characterized by height, and often, but not always, an elongated shape. This is shown in the examples below, both also illustrating how verbs may be further exploited to create rhetorical effects:

(57) *The four glass towers of the French national library stand sentinel on the Parisian skyline.* [TOURSD~1.TXT]
(58) *One geologically contoured part of the building heaves up from the site* like surrounding pre-Alpine hills rising out of the valley, *while another part thrusts toward the intersection* in an eruption of angled volumes caught in seismic upheaval. [2HIDDE~1.TXT]

Verbs like *heave* (above) as well as *thrust*, *push*, *emerge*, *surge*, or *blast* imply bulky buildings, highlighting the related notions of projection and force suggested by their spatial presence plus the upward motion of the buildings' dynamics. In turn, whenever the built arrangements are characterized by projected motion on a horizontal plane, the verbs chosen are *project*, *cantilever*, *corbel* or *reach*. Both sets are illustrated in the following passages:

(59) In this case, the architect and his clients have tried to, as Moss [architect] puts it, "cross the boundaries of architecture into music" with *a fantastic glazed canopy called The Umbrella that blasts out from the*

corner of the building like some great, unfurling, expanding force. [GLASSF~1.TXT]

(60) *The new building's dramatically arced roof* (left) *cantilevers towards the street through two traffic lights.* [CPWOOD.TXT]

On the other hand, short, wide structures are often qualified by means of verbs such as *melt, splay, spill, sprawl, expand* or *spread*, all of which draw attention to the usually large or wide – also horizontal – surface covered by spatial structures, plus the uninterrupted quality of that covering, as shown below:

(61) *The glazed restaurant/café*, designed by Bill MacMahon, *seemingly melts out onto the surrounding concourse.* [2IMAX.TXT]

(62) Just behind the screen – *a shading device that splays away from the building toward the river* – are interstitial spaces, including balconies from the children's bedrooms and an outdoor shower off the master bathroom. [2LIKEA~1.TXT]

This notion is also implicit in *run* or *travel*, but in this latter case, the space covered by buildings is long rather than wide, as seen earlier.

As the foregoing discussion has attempted to demonstrate, motion patterns in architectural discourse appear to be highly idiosyncratic. In this regard, they may well be regarded as *constructions* in Golberg's (1995) sense of the term, that is, as "form-meaning correspondences that exist independently of particular verbs [and] of the words in the sentence" (Goldberg 1995: 1) since their semantic interpretation cannot be derived compositionally. The constructions may be defined structurally as follows:[51]

[SUBJ [V OBL]]

However, the underlying semantic structure (i.e., argument structure in Goldberg [1995]) would not be X MOVES Y but X RESEMBLES X' FICTIVELY MOVES Y. Indeed, as also discussed by Goldberg, some constructions may be metaphorically related. In other words, treating the fictive motion patterns discussed so far as some kind of construction does not invalidate the existence of an underlying metaphorical mapping. The hypothesis sustained in this book is that they result from a general systematic metaphor that involves understanding a given appearance in terms of movement to or within a given location, which leads us back to the metaphor FORM IS MOTION posited in Lakoff and Turner (1989).

Regarding motion as the source domain in the metaphor may, nevertheless, conceal the fact that other entities may well also be evoked by the expressions – which, in turn, points to the difficulties often involved in metaphor construal. The problem lies in the abstractness of motion itself, a concept accessed only *in action*, that is, by observing the entities actually capable of moving in the process of doing so. Thus, as pointed out in Chapter 5, it may well be the case that motion expressions evoke not only some sense of dynamism, but also the very entities whose movement is portrayed in the expressions. Take, for instance, the following passage:

(63) The scheme consists of three discrete elements. The largest is a long, pod-shaped form ... *Nuzzling one end of the huge pod is a 350-seat IMAX theatre* [2SCIEN~1.TXT]

Here the spatial arrangement or overall form of an IMAX theatre is described as if "nuzzling" another spatial structure in its surrounding context and, in this sense, may be formalized as instantiating the metaphor FORM IS MOTION. However, the expression may also be understood as evoking the entities that prototypically effect such "nuzzling" motion – that is, the verb implies some kind of entity (animal or otherwise) having a nose or nuzzle and, therefore, able to effect a pushing movement by using it. The verb is, in fact, used to highlight the partial contact or force of one spatial volume against a wider built ensemble (as explicitly shown in the visuals illustrating the verbal commentary in the main text). However, one cannot help imagining other source entities as well, partly thanks to the graphic or suggestive quality of *nuzzle*.

As seen earlier, this may be also the case with verbs such as *step*, *crouch*, *reach*, *hug*, *embrace*, *punch*, *oversail* or *hover*, all of them evoking the entities usually associated with them. However, although a single expression may simultaneously evoke diverse non-architectural entities and actions, these are all used to highlight physical attributes of the buildings thus qualified rather than any other trait. In other words, buildings may be indirectly equated to boats, zeppelins or animate creatures by means of verbs like *oversail*, *hover*, or *nuzzle*. Yet, the only characteristic of the entities involved in the metaphor is a particular configuration rather than other mechanical or behavioral properties. Likewise, the motion verbs pointing to those entities are used to articulate a description of that configuration as this is visually apprehended.

The expressions from the corpus that best display the graphic motivation of motion constructions and their qualifying role are those that incorporate de-nominal verbs like *rake, bunch, ramp, cascade, scissor, funnel, line, fan, triangulate* or *corbel.* Thus, the corpus yields examples like the following:

(64) The drainage slopes of the parking lot indicate *an amphitheater-like arrangement that fans out from the base of the Umbrella* [building's name]. [2GLASS~1.TXT]
(65) Customers descend to the store from the parking levels by elevators or *by stairs that scissor down through the three-story space.* [2WINDOW.TXT]
(66) Dating from 1954, the Price House has *concrete-block walls that corbel out as they rise* and an expansive roof that seems to float above bands of glass. [3INTHE~1.TXT]
(67) *The floor gently rakes up to the second level of the old building* while providing a dramatic base for the freestanding information igloo, designed by Hoffman and his students. [2BETWEEN.TXT]

These passages may be regarded as instantiating a metaphor which might be formalized as MOTION IS FORM to differentiate it from the previously discussed FORM IS MOTION. In the new version of this motion schema, the fictive movement effected by the spatial element or artifact at issue (conveyed by means of complements) is endowed with a specific shape *via* the de-nominal verbs co-occurring with them. Thus, in the expression "stairs that *scissor down*", the particle "down" does not endow "scissors" with a motion sense, but expresses the direction of the movement effected by the stairs. In turn, "scissor" specifies the shape evoked by the typical arrangement of stairs in shopping centers seen from a given perspective.[52]

Indeed, it is this second pattern that most clearly points to the visual bias of motion constructions in architectural discourse, the main trait mapped onto spatial arrangements being the whole configuration or shape of *scissors, fans*, and any other entity that may be used in the expressions. In this sense, we need to take into account that such entities only acquire a motion sense when combined with phrases introduced by particles like *down* or *out.* In contrast, in the different instantiations of FORM IS MOTION the sense of motion is explicitly conveyed by means of the verbs involved, the prepositional phrases being basically concerned with specifying the direction of that movement (as in *The massive warehouse runs along the north side of the site*). In this regard, the constructions motivated by the metaphor MO-

TION IS FORM, would be characterized by the same [SUBJ [V OBL]] structure as those realizing the mapping FORM IS MOTION, but would suggest an argument structure that might be formalized as follows:

X THAT RESEMBLES Z FICTIVELY MOVES Y

The differences between MOTION IS FORM constructions and those involving motion verbs proper (i.e. FORM IS MOTION) are more evident when comparing both patterns with related constructions in other languages. For instance, Spanish architects also describe spatial arrangements in dynamic terms, as exemplified by the presence of verbs such as *recorrer* ('run', 'travel'), *planear* ('hover'), or *fundir* ('melt') in expressions like the following:

(68) En el nivel superior, que alberga las habitaciones, *planea un pesado fortín de hormigón terroso*, de un color pardo desvaído. [MÁQUIN~1.TXT] ['A heavy brownish concrete *bunker hovers over the upper level/floor* occupied by the bedrooms']

This passage shows that Spanish architects also describe buildings as kinetic entities in agreement with the metaphorical schema FORM IS MOTION, and that such figurative view relies on motion verbs regardless of the amount of information conveyed by the verbs themselves. However, in English nouns may be easily turned into verbs (as shown in passages 64-67), yet this is not the case in Spanish where the expression of manner usually relies on adverbial complementation. Thus, whereas in English we may find *The parking fans out from the base of the building*, in Spanish this spatial arrangement is described as *El aparcamiento se abre en abanico desde la base del edificio* ['The parking opens in the shape of a fan ...']. Likewise, the English expression *the wall bellies out* used to convey the presence of a protruding bulge in a wall is expressed in Spanish as 'la tripa de la pared' (which would literally translate as 'the paunch of the wall'), both expressions nevertheless focusing on external appearance and, hence, illustrating the visual bias of motion constructions in architectural assessment regardless of the differences exhibited by their grammatical realization according to linguistic convention in English and Spanish.

The Spanish versions of fictive motion expressions may therefore be used to illustrate the difference between FORM IS MOTION and MOTION IS FORM constructions. Instances of the latter convey the global shape of movement, that is what a given motion event – real or imaginary – *looks*

like, while instances of the former are mainly concerned with capturing spatial notions proper, such as height, width, and size – the axes of three-dimensional space. Both English and Spanish, nevertheless, have the means for expressing the relationship between buildings and sites in similarly figurative ways, and for qualification of the former in agreement with that relationship. The figurative instances found in both languages draw attention to how indispensable motion is to understand and talk about space. At the same time, motion constructions point to the dynamic quality of architects' conceptualizing and seeing their specific reality – indeed, *ceiving* their world in Talmy's (1996) terms – and, therefore, to their critical contribution to their diverse working and rhetorical requirements.

In short, fictive motion constructions in architectural discourse convey information about what spatial ensembles look like, highlighting particular aspects of that appearance or of their immediate context. Indeed, as profusely illustrated here, aspects concerning both buildings and spatial contexts may be seen as constraining the type of verb used in the expressions, to the extent that all three constituents are indispensable for construing the overall meaning of the expressions. Particularly interesting are the verbs involved in the constructions, which incorporate information about manner of motion, mapping it to the visual properties of the spatial entity thus qualified. In this sense, a second restriction (if this is, in fact, a restriction) governing motion constructions in architectural commentary may be seen as ultimately lying in the agent construing visual experience in motion terms, that is, in his/her perception of motion as evoked by three-dimensional form. In the case of architects, this may be regarded as both an individual and collective experience, resulting from a long training process leading to seeing and talking about the world from a particular (disciplinary) perspective. For the passages discussed in this section all illustrate the visual bias of architecture and its practitioners, or, to use the words of Oxman (2002), architects' *thinking eye* – a qualification that captures the complex, multiform knowledge structures involved in their work and, therefore, in their thought and language.

3. Adjectival realizations

Adjectives are an interesting source of insight into the figurative motivation of certain processes of word formation (e.g. suffixation patterns), and, accordingly, into the mechanics of some metaphorical transfers in the archi-

tectural realm. This is particularly evident in adjectives conveying visual information, in contrast with those concerned with the abstract properties of buildings, which are more opaque in this regard. Both sets are discussed in turn.

3.1. Visually motivated adjectives

The visually motivated adjectives found in the corpus fall into three distinct groups: Noun-shaped suffixed compounds, Noun-like derived adjectives, and adjectives involving suffixes other than *-shaped*, such as *-ic*, *-y*, *-ian* plus gerunds or past participles with an adjectival function.

3.1.1. Noun-shaped suffixed compounds

Noun-shaped adjectives explicitly signal that the trait shared by the two entities in the metaphor is their shape, as encapsulated in the suffix attached to the source term providing the root in the compound. This does not imply that the architectural entities or targets thus modified must have a well-defined shape, however. In fact, imagistic adjectives are often found to qualify fairly vague terms such as *plan*, *form*, *mass*, or *volume*. Technically speaking, these are metonymically motivated nouns used to refer to whole buildings in terms concerning one of its constituents or properties. In other words, although forms, plans, and volumes are some of the aspects involved in architectural artifacts, they are often used to refer to the building as a whole, a practice inherited from the Modernist critical language of the 1920s (see Forty 2000).[53] This tendency of architects to render what is concrete as abstract is offset by the opposite effect created by the imagistic adjectives qualifying spatial volumes or forms. These are all concerned with rendering what is abstract as concrete. This concretizing role is aided by the nature of the sources often involved in the metaphors, which may be alphabet letters (*L-shaped*, *U-shaped*), geometrical shapes proper (*pyramid-shaped*, *wedge-shaped*), and entities with a recognizable shape (*butterfly-shaped*, *pod-shaped*), as shown in the following extracts:

(69) Rosselli has removed crosswalls to create *what reads as a high L-shaped space*. [2DINING.TXT]

(70) Only the meeting room – *an egg-shaped volume grafted to the front façade* – announces itself as special. [2TIGHT~1.TXT]
(71) The largest is *a long, pod-shaped form* housing an exhibition space, planetarium and two theatres, together with an assortment of cafés, shops, offices and workshops. [2SCIEN~1.TXT]

On the other hand, when Noun-shaped adjectives pre-modify specific architectural entities, their role is to qualify or further specify the shape suggested by the surface that they cover (i.e. the plan of the building) or by their outline:

(72) The contrast in shaping of space seen in the main building between the irregular foyer and more disciplined reading rooms is played out again between *the fan-shaped lecture hall* and the terraced foyer. [2SPEAK~1.TXT]

3.1.2. Noun-like derived adjectives

Noun-like combinations also point to the resemblance underlying metaphorical transfers, as explicitly signaled by suffix *-like*. However, they are less explicit than Noun-shaped patterns about the aspects shared by the entities metaphorically related. Noun-like adjectives may also modify either vague terms or concrete spatial configurations. However, since the suffix *-like* provides little information about the trait involved in the metaphor, their contribution to a specific, accurate picture of the entities thus qualified needs to be considered as a matter of degree.

The clearest picture is achieved by expressions where both source and target terms correspond to concrete entities with a well-known or distinct appearance such as *tent-like roof* or *stalk-like lighting*, or when the roots in the adjectives relate to objects with clear shapes like, for instance, *lozenge-like*, *wedge-like* or *boxlike*. Nevertheless, in many cases the exact nature of the qualification provided by Noun-like compounds must be inferred from their immediate co-text, as in the passage below:

(73) At first floor level a long foyer and balcony protrudes out onto the main street elevation. *This visor-like glazed slot* forms the principal articulation ... [2THEAT~1.TXT]

Here a foyer and a balcony are anaphorically referred to as a "slot", which, as discussed earlier, also qualifies its referent by drawing attention to its appearance. This appearance is further qualified as "visor-like" after the shape suggested by the way it projects upon the street. Most adjectives formed in this way, however, do not specifically focus on shape, but rather convey the general appearance of buildings or building elements. This appearance may result from a mixture of traits in certain cases (for example, the qualification of a building as *alcazar-like*, that is, as resembling a well-known Spanish military construction) or may, in contrast, involve a very specific characteristic. The latter type is illustrated in the examples below. The image in 74 highlights the texture and color of a building previously referred to as a "cavemonster" by comparing it to an animal's hairy coat and blood.[54] In turn, the adjective in example 75 stresses the intensity of the color of two buildings by comparing it to the colorful display typical of peacocks:

(74) The cavemonster is appropriately made of dark brown rusted steel, where *the pelt-like oxidation of the metal trickles like old blood into the rocks at its base.* [MONTAI~1.TXT]

(75) It [the building complex] also features two of the brightest antidotes to the city's midwinter gloom: a pair of glass *buildings with peacock-like intensity.* [COLOR.TXT]

In this respect, the main difference between Noun-like and Noun-shaped adjectives is that the former evoke richer images usually, but not always, at the expense of specificity, while the latter always focus on shape, often a well defined one.

3.1.3. Other suffixed adjectives

The final set of metaphorical adjectives conveying visual information comprises an ensemble of de-nominal and de-verbal adjectives that result from suffixation processes involving particles other than *-like* or *-shaped*, among which suffixes *-ic* and *-an/-ian* are the most frequent. Although the suffixes in this group seem to be less productive when regarded separately, all together they yield the largest number of occurrences, as well as some of the most creative expressions in the corpus.

These adjectives may involve roots related to well-known entities (*visceral*, *reptilian*), as well as the names of renowned architects within the architectural canon (*Miesian*, *Wrightian*, *Reptonian*, *Corbusian*, *Chiricoesque*, *Gaudiesque*). Both sets are exemplified below:

(76) The use of colour also extends to *the reptilian green copper cladding* of the circulation hub that links the two blocks. [2PARIS.TXT]

(77) Barkow Leibinger subtly manipulate the straightforward conventions of *the Miesian grid*, starting with the plan (below), *a Wrightian pinwheel* with four two-story blocks flanking a double-height machine hall. [LASERS~1.TXT]

As happens with Noun-like adjectives, the terms in this group exhibit different degrees of explicitness with regard to the architectural attributes they foreground or qualify, and to its scope. For instance, the adjective "reptilian" in passage 76 highlights only one trait, color. It departs from its usually derogatory sense to specify the shade of green of the building's "cladding". Nevertheless, interpreting the term as concerned with color rather than any other trait is largely determined by the context. In contrast, the information conveyed by adjectives derived from architects' names (e.g. "Miesian" and "Wrightian" in passage 77) rests upon a complex mixture of traits. These adjectives evoke information involving both formal and conceptual aspects of the entities thus qualified, related to the building styles encapsulated in the adjectival roots. These, however, hardly ever pose interpretation problems for architects, given their disciplinary knowledge, irrespective of how the adjectives occur in their textual contexts.

An interesting set of adjectives are terms like *boxy*, *cubic*, *prismatic*, *cuboid*, *cruciform* or *toroidal*. All of these exhibit a certain tension between objectivity and subjectivity, or between specificity and vagueness which results from combining lexical roots involving well-defined geometrical shapes with suffixes achieving the opposite effect.[55] Consider, for instance, *boxy* or *cuboid*, both of which incorporate a geometrical root which, in principle, should work at the service of clear and objective qualification. Comparing a building to a box or a cube should give readers a clear picture of its appearance. However, the specific, objective quality of geometrical roots is tempered by the vague quality of suffixes *-y* and *-oid*, which suggest that the buildings thus qualified are less similar to a box or a cube than such roots seem to imply.

3.2. Non-visually motivated adjectives

A second large set of adjectives realizes less visually oriented metaphors. In general, these fulfil an attributive function concerning the nouns they modify. Two notable exceptions in the corpus concern adjectives *vernacular* and *green*, both of which play a classifying role. The former refers to the typical building style of particular regions or cultures, and is also used for qualifying the buildings thus designed, as shown below:

(78) Designed by William Bruder, the new *Teton County library is a modern reinterpretation of Wyoming's vernacular ranch buildings* and the log structures that still populate the region. [RUSTIC~1.TXT]

In turn, *green* is a metonymic adjective often used either to classify or to qualify materials or architectural trends concerned with environmental issues, the metonymy arising from the color prototypically associated with the natural world. This use is illustrated in the following examples:

(79) This protect illustrates that *"green" building design* works best when the architects and consultants work closely as a multi-disciplinary team to create solutions that address many design issues. [2TWORE~1.TXT]

(80) Technological advances have increased *the palette of 'green' materials and systems* available to the architect. [3TWORE~1.TXT]

In contrast with the imagistic adjectives discussed earlier, not all the adjectives focusing on the abstract or functional properties of buildings result from derivation and suffixation processes. A case in point is the set of adjectives qualifying buildings in human terms like *bold*, *content*, *masculine*, or *intelligent*. At the same time, those adjectives that result from derivation processes incorporate suffixes less concerned with external appearance than *-shaped* or *-like*. Thus, the largest group of derived adjectives incorporate suffixes such as *-al*, *-ic*, *-ive*, and *-ar*, and qualify entities as showing the qualities and characteristics encapsulated in the nominal roots (e.g., *functional* or *kinetic*). Another set is concerned with expressing some kind of agency, as illustrated by such adjectives as *speaking* or *brooding*. Finally, we also find a number of past participles with an adjectival function focus-

ing on result (e.g. *stripped* or *orchestrated*). The example below illustrates some of these adjectives:

(81) Seen against the purity of the green prism, *it* [the campus radio station] *seems merely clumsy and wilfully rustic.* [2MONTA~1.TXT]

Adjectives concerned with the behavioral and functional properties of buildings rather than their external appearance can be found in premodification or post-modification patterns, the former yielding the largest number of occurrences (118 instances) versus the latter (55 instances). Post-modification patterns usually comprise copular metaphors involving copula *be* (only one case involves the less assertive *seem*, as seen in example 62 above), and appositive structures (all of them also involving the implicit presence of *be*). Both modification patterns are shown below:

(82) Even in old age, *the friendly, tough little house* will give shelter and shade to all who live in it. [AUTHOR~1.TXT]

(83) Although Moneo wanted his addition to defer to its historic setting, *it's not as reverent as he claims.* [3CHURC~1.TXT]

(84) Overscaled but delicate, *provocative yet serene*, a concoction of opposites – this urbane container for books and media both celebrates and rejects its place in the matrix of time, space, and commercial culture. [3TIGHT~1.TXT]

Finally, as described in Chapter 5, musical adjectives such as *rhythmic* or *jarring*, and certain language-motivated adjectives such as *mute* or *quiet* may be seen as articulating both visual and non-visual knowledge. On the one hand, they may be interpreted as instantiating metaphors whereby buildings are viewed as musical pieces or human beings. On the other, they may also be interpreted as examples of synaesthetic metaphor used to qualify the buildings' visual appearance and the effects produced by it on the observer by means of adjectives conventionally expressing aural rather than visual experiences. Consider the following extracts from the corpus (on the next page):

(85) Defining two faces of the plaza are an imposing 16th-century cathedral on the east and *the quieter cardinal's palace* dating from 1768 on the south. [CHURCH~1.TXT]

(86) [The] literal superficiality of the facade is reinforced by *the visual rhetoric of forms* that are not sustained by a convincing function or idea. *The grandiloquent cloudlike vapors of expanded metal on the roof* don't have a function, not even as a trellis. [2HIDDE~1.TXT]

Passage 85 incorporates "quiet", an adjective used in architectural texts for qualifying buildings characterized by a visually discreet appearance rather than alluding to the sound conditions of their interior space(s) or to any other sensorial experience. Example 86 is more complex: here "rhetoric" and "grandiloquent" are used for evaluating a façade in negative terms. However, although this negative assessment appears to be concerned with the façade's lack of solidity and function, this lack is visually apprehended, as made explicit by the expression "visual rhetoric of forms" opening the passage.

4. Adverbial realizations

The corpus only yields 18 instances of figurative adverbs. Most of these draw upon the domain of biology, and portray buildings either as living organisms (e.g. *physically*, *organically*) or as human beings (e.g. *naggingly*, *wilfully*, *politely*). These views are often already encapsulated in the verbs they modify, as shown in the following examples:

(87) In spite of various improvements to the original building, *the museum rapidly evolved, both physically and conceptually*, beyond its impromptu beginnings in the mid 1950s. [NORDIC.TXT]

(88) [The building] *quickly and naggingly insists on* oscillating between being a whole and a composition of parts. [RED.TXT]

Only three instances of adverbs in the corpus are visually motivated. These are *embryonically* and *toroidally* (repeated twice), as illustrated below:

(89) The building is a huge shell-like structure emerging from a grassy mound ... *This toroidally generated shell* – like the sliced half of an odd bi-valve – is slashed around the base by a crescent of glass and enclosed where sliced through by a glass wall. [2FLYING.TXT]

(90) Appropriately, *the centre curves embryonically around a central square*, its north-south spine traced by a public footpath through the site. [2GENET~1.TXT]

Both adverbs are concerned with further specifying the information encapsulated in the adjectives and verbs they modify, and involve clearly recognizable shapes.

5. Metaphorical clusters

The previous sections have dealt with how the metaphorical schemas introduced in Chapter 5 are instantiated at the level of word, group, and clause in architectural reviews. However, as illustrated by many of the examples used in their description, such figurative instantiations do not occur alone, but rather, often interact at certain textual stretches. Moreover, they may also occur in a fairly organized fashion, and constitute figurative clusters providing the backbone along which reviewers develop their commentary in reviews.

As seen earlier, metaphorical clusters have been described in Goatly (1997) as falling into patterns of *repetition*, *multivalency*, *diversification*, *compounding*, *modification*, *extension*, and *mixing*. Goatly's discussion pivots on literary texts, yet most of the patterns he describes can also be found in prosaic texts like the building reviews here discussed.

A recurrent pattern in the corpus is metaphor repetition, and happens whenever a metaphorical term is repeatedly used to refer to the same target throughout a text or textual chunk. This pattern is illustrated in passage 90 below, and often involves a first occurrence realized by a noun premodified by a Noun-shaped/like adjective (e.g. "wedge-shaped volumes"), and the subsequent reference to the entity thus qualified by means of the source term in the adjective devoid of the suffix (e.g. "wedge"):

(91) The plan is based on *two wedge-shaped volumes* ... Clad in rough-sawn planking, *the larger wedge* contains the main public volume of the library .... *The smaller wedge*, its walls rendered a deep, oxblood red, houses the library's backstage facilities, such as librarians' offices and staffrooms. ... Set between the intersection of *the two wedges* at the short east end is an entrance portico, overlooking a small courtyard landscaped with saplings and boulders. The gallery-like foyer serves as an antechamber to the main public spaces arranged in *the large wedge*. [2RUSTI~1.TXT]

When the repeated figurative term refers to different targets each time it occurs, we have multivalency, as shown in the example below. Here "architecture" refers to a mixture of building plus discipline, to the discipline (literally), and, finally, stands metonymically for the finished building:

(92) In the 1940s, Aalto proclaimed himself committed to *an architecture* that was "functional mainly from the human point of view." ... The question is particularly thorny in the current postmodern era, in which building imagery (be it classical or modernist) dominates our definition of *architecture* ... Fixler views Aalto's dormitory as *an architecture* that "demands to be used, to acquire the patina of age – in effect, to generate history." [BACKTO~1.TXT]

Metaphor diversification is also frequently found in the corpus, and involves the use of different figurative terms or sources to refer to the same target, each source term highlighting different aspects of it. This is the case of example 93 below, where "fan" and "book" metaphorically qualify a building, and "fins" and "pages" refer to some of its parts:

(93) The building is *a jagged fan of five overscaled concrete fins webbed together* ... The architect likens the building to *an open book, the five pages of which – the concrete fins* – represent significant events in the history of Duisburg's Jewish population. [OUTOFT~1.TXT]

Another recurrent pattern is metaphor modification. It happens when the figurative terms referring to the same target are related among themselves through lexical relations such as synonymy, as shown in passage 94:

(94) Based on the exact proportions of a cube ... Chosen for its archaic symbolic associations (equal sides reflecting the omnipresence of a singular divinity), *the cubic form also alludes to the Ark of the Covenant. Both church and Ark embody the notion of a sacred vessel or box*; ... Although Architecture Studio's geometric tactics are highly Mannerist (in the best French tradition), *the stark cube has a curious potency; a modern Ark* for a modern parish, sheltering the sacred and symbolizing the meeting of God and humankind. [SACRED.TXT]

Finally, we may also find metaphor extension in those cases where a number of semantically related sources are mapped onto likewise semantically related targets, as in "The very *literate* Myers has succeeded through *a*

process of commentary, reference, and cross-fertilization in writing a sequel chapter in steel house design". This pattern stands in clear contrast with the seventh pattern, called metaphorical mixing, and meaning that the figurative terms in a given cluster are related syntactically but not semantically. An example of this is "*Hovering like a gargantuan blancmange* above the Greenwich Peninsula, the Millennium Dome is now an inescapable part of the London skyline."

The most recurrent patterns in the review corpus are repetition, diversification, extension, and compounding. They show, in the first place, that the textual co-instantiation of metaphors is not an exclusive feature of literary texts, but is characteristic of non-literary texts and genres as well, where such patterns also help fulfil discourse goals and achieve certain rhetorical effects, as described in the following chapter. At the same time, the patterned way in which metaphorical expressions often co-occur at different rhetorical loci also provides textual cohesion. Indeed, metaphor extension above may well be seen as illustrating *lexical collocation* (Martin 1981; Nunan 1993) within the broader category of lexical cohesion (Hoey 1991). In turn, metaphor repetition, diversification, and compounding would be particular instances of *reiteration* within architectural discourse. All four patterns are further discussed in Chapter 7.

In sum, in this chapter we have seen how architectural metaphors work at clause and sentence levels, and have briefly considered how they combine in texts. This survey has shown that figurative expressions in design assessment cover reviewers' referential and attributive needs, the former accomplished by metaphors that have become part of architectural jargon, and the latter fulfilled by the diverse patterns in which metaphors may be linguistically instantiated. Some such patterns also underline the metaphorical motivation of recurrent syntactic and lexical phenomena in architectural discourse and texts. Among these, particularly arresting are relational patterns where motion verbs are used for describing, in dynamic terms, intrinsically static entities like buildings, and adjectival patterns illustrating certain processes of word formation (e.g. Noun-like and Noun-shaped adjectives).

The discussion so far has centered on the metaphorical motivation of important aspects of the professional worldview of architects, and on how this ideational dimension finds linguistic expression in accordance with the lexical and grammatical possibilities afforded by English. This linguistic realization is the springboard to approach the role of metaphorical language

in the reviewing practices of architects. The next chapter is devoted to explaining the contribution of figurative language to the successful accomplishment of rhetorical goals in the building review genre.

Chapter 7
The contribution of figurative language to re-viewing space

> In a certain discourse situation, in a given social milieu and at a precise moment, something seeks to be said that demands an operation of speech, speech working on language, that brings words and things face to face. The final outcome is a new description of the universe of representations. (Ricoeur 1986: 125)

The *raison d'être* of reviews is the assessment of *architectus ingenio's* work, an evaluation that cannot rest upon beautiful-ugly or good-bad parameters. Regardless of its unquestionably artistic facet, designing a building involves the mastery of complex technical knowledge. Accordingly, reviewers must take into account both aesthetic and technical aspects when evaluating spatial arrangements, irrespective of their personal design preferences.

This dual evaluation is particularly important in building reviews, a genre that may well give the impression of being more concerned with the artistic facet of architects rather than their technical skills. Still, a significant amount of the commentary in reviews consists of technical descriptions of the buildings at issue. In other words, description is one of the rhetorical goals of the genre, even if descriptive sections, moves, and steps are unquestionably at the service of evaluation. Likewise, all other components of the genre (visuals and their corresponding captions, and the final Technical Specifications Card) help reviewers to meet their informative concerns.

However, reviews seldom provide a comprehensive picture of the buildings under assessment. Of course, the somewhat partial nature of descriptions in these texts partly responds to their length: they are fairly short and, therefore, do not allow for detailed explanation of the buildings under focus. Moreover, it has already been seen that the role of reviewer presupposes a certain freedom to decide which aspects of architectural projects deserve to be commented upon in the reviews (cf. Chapter 4).

1. Figurative language and description

The metaphorical language found in reviews illustrates the focus adopted by authors in their commentary. Thus, when this is aesthetically driven, the norm is to find expressions conveying a visual representation of spatial artifacts. In contrast, when reviewers deal with design procedures and/or the buildings' function(s), less visually based metaphors are the preferred option.

In earlier chapters, we have seen that the abstract properties of buildings are often discussed by means of language motivated by machine and biology metaphors, while the processes and actions involved in their design are usually referred to and described in language, musical, and textile terms. The informative role of such figurative expressions is closely related to the descriptive aim of building reviews: this language supplies the terms for referring to building elements and to the processes and skills involved in their design and construction, and also helps describe the *performance* or *behavior* of buildings after construction, each expression foregrounding diverse aspects of architects' work.

In contrast, whenever the reviewers' description is aesthetically focused, it usually relies on image metaphors. This is the case of nouns referring to buildings and building contexts as *wedge(s)*, *hull(s)*, *floating cone(s)*, *strip(s)*, *band(s)* or *sliver(s)*, all of which dwell on particular traits of their external appearance. This referential function often goes hand in hand with attribution, as has been seen in the discussion of anaphoric reference in the previous chapter, as well as the various verbal patterns motivated by FORM IS MOTION and MOTION IS FORM. The latter fill lexical gaps in economic and expressive terms, helping reviewers avoid lengthy explanations of how buildings are spatially located. This is especially the case of the instantiations of MOTION IS FORM (e.g. *fanning out* or *raking up*), which help reviewers to concisely render concrete portrayals of spatial arrangements avoiding the use of adverbials.[56]

In principle, the figurative language used for description can be found anywhere in the rhetorical structure of reviews, and, in this sense, does not call attention to itself, being structurally unmarked in the texts. This is not surprising, given that description is a basic communicative purpose seldom used for its own sake and, therefore, present in any text irrespective of whether it is mainly concerned with telling a story, giving instructions, or persuading readers into following a given course of action (Werlich 1982; Adam 1992). This is why the identification of a specific section devoted to

description in the structure of reviews does not mean that *all* metaphorical language used for describing buildings is necessarily found here.

There are, however, exceptions to such a discreet occurrence. Two particularly arresting cases are figurative clusters concerned with a particular kind of spatial deixis, and the metaphorical language found in the captions of the visuals accompanying the verbal commentary.

1.1. Metaphor and spatial deixis

A characteristic feature of architects' work is their constant handling of different dimensions and perspectives when representing space; throughout the long design process architects draw various spatial perspectives of the future building in the form of plans, sections or models. Likewise, discussing design projects often requires shifting from one perspective to another. Indeed, the patterned co-instantiation of figurative language in particular sections of reviews suggests that some of the figurative clusters outlined in Chapter 6 respond to this very specific descriptive need of architects. Before taking this point further, consider the following passage comprising the Description part and two captions of a review entitled "Montaigne Essay":

(1) Fuksas's new building shares the same plan discipline as the surrounding concrete ones: it rigidly follows the grid and is rigorously oblong. Yet it is quite a different affair. [MONTAI~1.TXT] *A huge green parallelepiped initially appears to be almost inviolate, except for a deep horizontal slot which runs round the whole box*, about two-thirds of the way up. *A couple of vertical incisions* in the tight green pre-oxidised copper skin *signal entrance. The glass slashes are the ends of full-height slots that run right across the building.* Using these as the major public volumes, Fuksas weaves off a surprising variety of spaces. The largest is the theatre (or rather the salle de spectacle), *a black box which occupies the whole south end of the rectangle* and can accommodate an audience of 350 in different configurations. *A smaller black box* is between the entrance and the main volume; it can be thrown together with the main space when occasion demands. Across the wide hall with its flat plain in-situ concrete walls and glass ends is the major exhibition gallery. Here, *a slot through the whole building* brings daylight down to the back of the room ... The rest of the ground floor is occupied with fine art studios and it includes the two big, calm double-height spaces at the north

> end, which are lit by *the clerestory of the horizontal slot. ...* The music rooms have the delightful (from the outside) device of shutters which are clad in the same green copper as the rest of the building. They sit flush with the facade and fold open and back as necessary when the rooms are occupied and used in different ways: *the mute box suddenly speaks of humanity. ... On top of the whole thing is another box*, this time clad in vertical wood boards. It houses the campus radio station, *perched apparently precariously over the south and west edges*, and as Fuksas says 'installé symboliquement sur le toit comme une antenne tournée vers le monde.' Symbolic it may be, but seen against the purity of *the green prism* it seems merely clumsy and wilfully rustic. [2MONTA~1.TXT] *The green prism crouching* among neo-Corbusian mediocrity. [CPMONT~1.TXT] Radio station on top of *prism* is permeable to elements. [CPMONT~1.TXT]

This passage illustrates, among other things, metaphor modification, which, as seen earlier, involves the use of several lexically related sources for referring to the same architectural target. Each term, in turn, conveys a different spatial perspective of its architectural referent. Moreover, the description above deals with the physical properties of a building and, consequently, it largely relies on image metaphors. In this particular case, the description of Fuksas's building rests upon lexis drawing upon geometry. The passage starts with a two-dimensional qualification of the building's ground plan as "oblong", that is, provides a *flat* perspective of the space occupied by the building seen from above. Change of perspective is suggested by further referring to the whole spatial complex as a three-dimensional "huge green parallelepiped", and to its main and subsidiary volumes as a "green prism" and "box(es)" respectively. In contrast, describing the building later as a "rectangle" implies a shift back towards a two-dimensional perspective. Likewise, the reviewer's reference to the diverse openings in the building as "slots", "vertical incisions", or "glass slashes" is solely concerned with two spatial dimensions: height and width.

In short, metaphorical language and, more specifically, image metaphors, may help readers follow the description of a building from the angle of view adopted by the reviewer. Apart from responding to various rhetorical needs and concerns, the figurative clusters in this text and those described in the previous chapter are also indicators of the spatial viewpoint adopted by reviewers in their commentary. They are concerned, then, with spatial or *perspectival* deixis.

Change of perspective and dimensionality shifts represent a subtle strategy seldom noticed by people who do not belong to the community of architects, and are often taken for granted by architects. The geometric and fairly conventional quality of many of the terms used in such descriptions (as is the case of "box", "prism" or "parallelepiped" above) make them less markedly figurative for architects themselves.

Shifts in perspective may be more saliently rendered through non-geometric language. The following passage (partly quoted in Chapter 2) illustrates an extended metaphor drawn from the domain of biology:

(2) Alluding to *organic geometry* and primordial building traditions, this little crèche in Bremen has a surprising formal and material richness. [LEAD] As a free-standing element, it needed to be curved for stability, and the curve chosen prompted the development of *a tadpole-like plan* with entrance and social centre in *the head*. In the developing narrative about the building *the serpentine wall doubled as a city-wall and as the remains an imagined fossil creature – the Urtier.* [LYRICAL.TXT] The spatial organization presented to a small child could scarcely be simpler: from a distance *the building is a kind of mound or crouching creature* with very low eaves to bring the scale down. ... The combination of radial and linear principles in the plan allows transition between centrality in *the head* and a route distributing to either side in *the tail. ... The thick, solid brick wall is visibly the spine of the whole, emerging naked externally in the tail.* [2LYRICAL.TXT]

The description of this crèche follows the organic associations anticipated in the Lead of the review. The building is first introduced in two-dimensional terms as "tadpole-like", in agreement with the shape suggested by its ground plan. Likewise, its two furthermost extremes are later referred to as the "head" and "tail" respectively, the three images being compliant with a two-dimensional, flat rendering of the building. The shift towards three-dimensionality occurs by qualifying the central wall in the complex as a "spine emerging naked." Another three-dimensional image is its comparison to "a crouching creature," which co-occurs with the more architectural entity "mound" (both hedged by "a kind of").

Change of perspective may also involve the co-occurrence of diverse unrelated sources in a figurative cluster, each image further refining the picture textually created, as shown in example 3 on the next page:

(3) Based on *a boomerang shaped plan, the new building steps down from a prow at its south end to embrace a new public space.* ... Occupying the sixth floor prow is a bar and restaurant with impressive views over the city. ... The walls of *the wedge-like form* are clad entirely in a delicately translucent glass skin, so that the building is perceived as a series of elements encased within a shimmering membrane. [2MANCH~1.TXT]

The description of this building in Manchester starts with the qualification of its ground plan as "boomerang shaped" – a two-dimensional image that captures the space it covers. In turn, the appearance of the building's elevation is articulated by means of verb "step down" and further reference to its "wedge-like form". The former specifies its terraced arrangement, and the latter focuses on the overall contour or general shape of the whole volume. Finally, the verb "embrace" may well convey both two- and three-dimensionality.

In sum, in the specific context of building reviews, many instances of metaphor interplay may be explained as reflecting the handling of different dimensions and perspectives in the discipline. This is more evident if we relate the descriptions in the main text to the information provided in the visuals and their corresponding captions. Consider the following example:

(4) *The building is a simple two-storey box* 140m long by 25m wide with its long axis running north south. ... *The box is punctured* by two covered passages which separate the functional components of the building. ... While *the box* is conventional, the cladding is not. [2STEEL.TXT] *The rational, Miesian box* in its Napa Valley setting. [CPSTEEL.TXT] The winery appears as *an introverted, geometric slab*. [CPSTEEL.TXT]

In this description, the reference to the winery as a "slab" in one of the captions departs from the consistent reference to it as a "box" throughout the main text. The latter focuses on three-dimensionality and volume, whereas the caption is concerned with the front view of a building which, indeed, looks like a huge slab in the corresponding photograph. The interplay of figurative language in captions with that in the main text is the topic of the following section.

1.2. Figurative language in captions

Of the 1,972 instantiations of metaphor in the corpus, 235 occur in captions. Among these, visually informed expressions amount to 150 cases whereas non-visual figurative language yields 85 instances. In other words, the visuals accompanying the text are themselves often accompanied by language that instantiates image metaphors.

Together with helping create cohesive networks within the texts, the role of the figurative language in captions appears to be largely determined by the type of graphic representation they comment upon. Thus, we have already seen that the captions of technical drawings (e.g. plans, sections or elevations) supply labels for the architectural elements displayed, whereas the captions of photographs often attempt to further explicate what is captured in visual form. These often echo the commentary in the main text in one of two ways: by repeating the figurative expression in the main text, or by incorporating a different, yet related expression. Of these *intratextual* patterns, which may be called *repetition* and *rewording*, the former yields the largest number of occurrences.

Repetition usually involves the instantiation of the same figurative expression in both main text and caption:

(5) Although the theatre respects the scale of its surroundings, it is a bold and conspicuously contemporary *addition to the urban fabric.* [3THEAT~1.TXT]
The building respects the scale of its surroundings, but is a conspicuously contemporary *addition to the urban fabric.* [CPTHEA~1.TXT]

There are cases where the expression repeated in the caption is less assertive, being hedged orthographically or lexically. The following extracts illustrate this hedged type:

(6) *Its west facade is a 1,000-foot-long clothoid curve*, a lozenge-like shape with sharp ends that tapers both horizontally and vertically. [2SCIEN~2.TXT]
The Japanese architect clad his arced exterior (at right), *technically a clothoid curve*, in 6 by 62 foot precast concrete panels. [CPSCIE~2.TXT]

(7) *The interior unfolds as a pair of canyons* – one serving as the main-floor spine, the other leading down to the lower level. Each is defined ... [2INTHE~1.TXT]
"Canyons" that slope to the lower level (top) and create a circulation spine for the main floor (right) *seem to be shaped by geological forces*. [CPINTH~1.TXT]

(8) The architect completely breaks *the traditional supermarket box*, yet respects its purity as a typological form enough to keep his manipulations distinct from it [2WINDOW.TXT]
Sweeping lines of cantilevered parking ramps (facing page, bottom) complement curves of facade while emphasizing *boxy quality of supermarket typology*. [CPWINDOW.TXT]

As shown above, hedged repetition may consist of both the occurrence of the repeated expression between inverted commas (example 7), or its co-instantiation with lexical hedges. The latter is the case in example 6, where the adverb "technically" limits the figurative qualification of a façade as a "clothoid curve." Moreover, the hedging role of this adverb appears to be further reinforced by the vagueness implicit in the suffix *-oid* in "clothoid". Another case of lexical hedging is "seem to be shaped by geological forces" in passage 7, which may be read as a justification for comparing the building's interior spaces to "canyons."

In general, hedged figurative language of this sort may well suggest that reviewers are aware of the incongruity of describing spatial artefacts as "clothoid curve(s)" or "canyons", and hence, the need to supply readers with the means to *correctly* interpret the scope of such expressions. At the same time, hedging devices often call attention to the figurative quality of the commentary, that is, they may also be seen as *metaphor-marking* strategies.[57] Section 3 in this chapter dwells on these questions in more detail.

Rewording is of three different kinds. The first type involves a change of word class in the linguistic realization of the same metaphor, as shown below:

(9) On the southern side, the dark green painted steel plate cladding *resembles a distorted ship's hull*. [2DRAGON.TXT]
The muscular, hull-like flanks of the south elevation *are clad in steel sheets*. [CPDRAGON.TXT]

(10) The largest is *a long, pod-shaped form housing an exhibition space*, planetarium and two theatres, together with an assortment of cafés, shops, offices and workshops. [2SCIEN~1.TXT]

Computer-generated image showing the scheme's three components – Wing Tower, *exhibition pod*, IMAX cinema. [CPSCIE~1.TXT]

In passage 9 we find the compression of a descriptive stretch in the main text by means of a Noun-like adjective in the caption. Thus, the building element described as "resembling a distorted ship's hull" in the main text turns into "the hull-like flanks" in the caption of one of its photographs. Nevertheless, the opposite pattern is more frequent in the corpus. This is shown in example 10, and consists of qualifying the buildings in the main text by means of metaphorically motivated Noun-like and Noun-shaped adjectives, and referring to them in captions by means of the nouns providing the roots in such adjectives. The corpus often yields instances like *a shield-like wall of silver metal* later referred to as a *silver shield*, a *wedge-like form* turned into a *wedge* or a *hull-like volume* shortened as a *hull* in captions.

The second rewording pattern consists in the instantiation of synonymous terms, some closer in meaning than others, but none involving dramatic changes in meaning. Cases like these include synonym pairs such as *prism/parallelepiped*, *eye-shaped/ocular*, *contract/compress* or *choreograph/orchestrate*:

(11) De Portzamparc *choreographed* an elegant promenade into the space. [225FLO~1.TXT]
De Portzampac *orchestrated* a sweeping entry promenade from elevators that open onto an elliptical mezzanine, down a curving stair. [CP25FL~1.TXT]

The last rewording pattern involves and explanation of the metaphorical expression used in the main text, as can be seen in passages 12 and 13:

(12) L'Hemisféric embodies another of Calatrava's fascinations – *architecture that moves*. [2BUILD~1.TXT]
Never merely mechanical contrivances, Santiago Calatrava's *kinetic building parts fold and unfold, spread and glide*. [CPBUIL~1.TXT]

(13) *Visitors enter through a glass-and-metal seam* between the copper-clad garage block and the elongated form of the house. [2INTHE~1.TXT]
The main entry (this page) *shows how vertical elements* balance the angled roofs and canted walls. [CPINTH~1.TXT]

It is difficult to detect any systematic pattern that explains the co-instantiation of metaphorical language in the main text and the captions. For, although the latter might supply reviewers with a space where cases of very innovative or challenging metaphors could be explained without interrupting the commentary in the main text, this is seldom the case. In fact, very few cases of the more blatantly figurative expressions in the main text are repeated and/or re-lexicalized in the captions. For example, figurative language describing plans as *tadpole-like* or as *a Wrightian pinwheel*[58] is seldom explained either in captions or in the main text, which suggests that the author expects that such expressions will be easily interpreted by the readers of their reviews (however odd these may feel for someone outside the architectural context). A further explanation for this absence may be the presence of explicit visual data. This is the case of the *tadpole-like* building discussed earlier, the ground plan of which actually resembles the entity used in the image. Likewise, the expression *a Wrightian pinwheel* is paradigmatic of another noticeable absence in captions: none explains the expressions involving adjectives derived from architects' names however innovative these may seem (e.g. *Chiricoesque* or *sub-Corbusian*).[59]

In short, captions are one of the textual loci where figurative language may occur, irrespective of whether they work as explicitation strategies in the genre or, rather, provide redundant information for the expert audience of reviews. In both cases, the metaphorical language found in them mainly works at the service of the ideational plane of the texts and, at the same time, helps establish cohesion networks within them.

2. Figurative language and evaluation

Reviewers also use metaphor for specifically evaluative purposes. In fact, a large amount of figurative language in reviews is found in critically evaluative loci within their rhetorical structure. This suggests that it is mainly concerned with evaluation – or, to be more precise, structurally relevant evaluation given the weight of this rhetorical goal in the genre. The following example is illustrative of this point:

(14) Diverting the Turia solved Valencia's flooding troubles, but its riverbed left *an unsightly brown gash through the city's stately fabric.* Valencia has spent the past 40 years transforming the dry riverbed into *a continuous swath of parkland.* To fill in the park's unfinished

> easternmost end, where the river once flared out en route to Valencia's port, the city commissioned a sprawling 87-acre "City of Arts and Sciences" (CAS), designed by native son Santiago Calatrava. [BUILDI~1.TXT]

In this passage, the same architectural target is first referred to as "an unsightly gash" and later as "a continuous swath of parkland," the former expression articulating a negative appraisal and the latter providing a more positive alternative. It must be noted, however, that the evaluative load of both images does not only derive from their semantics since, whereas "gash" might be considered more negative than positive (its negative connotations reinforced by the pre-modifier "unsightly"), "swath" is a fairly neutral term. In fact, the evaluative effectiveness of the expressions incorporating such terms may well arise from their textual rendering: they appear in a contrast position and, more interestingly, occur at the very beginning of the review (i.e. Introduction). Concretely, the expressions in italics illustrate the problem-spotting step of Move 1, and the rest of the passage belongs to Step 1 of Move 2 (i.e., positioning building in the context built in the previous move), as described in Chapter 4. The evaluative frame thus created will be developed in the ensuing text, which describes how that "gash" may become a "swath" thanks to an architectural project.

The metaphors providing this type of structurally relevant evaluation in reviews are found in titles and leads, problem spotting and first evaluations in the Introduction, the move in Description concerned with highlighting specific aspects of a building, and the Closing Evaluation.

As happens with describing a building, the focus of their evaluation changes depending on the greater or lesser visual quality of the metaphor used in the commentary. Imagistic expressions evaluate external appearance, and are mostly found in Introductions. Together with helping reviewers provide a general picture of what the architectural target – building or spatial context – looks like, image metaphors in Introductions are also concerned with evaluating diverse aspects of the topics thus introduced. Such evaluative concerns may be discerned from the move or step where such expressions occur.

The metaphors found in Move 1 of Introductions (i.e., creating a context for the introduction of the building) help reviewers assess a given situation as a problem that the building under review attempts to solve in a number of ways. The problems articulated are of diverse sorts. A favorite topic is the difficult or unsightly quality of spatial contexts (including either the

physical void for the building's ground siting or the already-built context surrounding it), as illustrated in passage 14 above. Design problems may also concern the previous state of a restored building (its restoration being the topic of the review), or the state of the discipline as a whole in a given culture or community. The following passages deal with these issues:

(15) Ken Yeang's best known work ... has been largely tall buildings, where he has set standards and offered ideas about techniques which offer the whole tropical world models for generating *towers that are far less energy consuming than the average dumb glass up-ended rectangles which bizarrely dominate so many would-be prosperous cities of South-East Asia, the Gulf and South America.* [GOLF.TXT]

(16) The supremely elegant and witty Montaigne would not be very happy with the university which has been named after him. It is much made up of *stolid sub-Corbusian precast concrete slab blocks set rigid in militaristic ranks*: as dull a campus as can be found anywhere in the Western academic world which during the 1960s and '70s went berserk building huge quantities of university accommodation with little regard to quality or even longevity. Fuksas's new building shares the same plan discipline as the surrounding concrete ones: it rigidly follows the grid and is rigorously oblong. Yet it is quite a different affair. [MONTAI~1.TXT]

The images in these two extracts convey a negative evaluation of the context surrounding the buildings under review. In example 15, the negative evaluation focuses on the kind of tall structures currently found in Malaysia, and relies on both the pre- and post-modifiers co-occurring with their reference as "rectangles" as well as on the contrast established between such "rectangles" and the presumably preferred option articulated as "towers that are far less energy consuming." In a slightly different vein, the negative views on a campus in example 16 provide the frame for the positive first evaluation of the new building in the two sentences that close the passage.

Image-motivated language also occurs in Move 3 within Introductions, where it provides the first evaluation of the building itself, as shown in passage 17 on the next page. Here the final image assessing the impressive and somewhat chameleonic appearance of this private house is thematically fronted, and, therefore, made more salient:

(17) From a distance, it's hard to make out the new house Kramer Woodard has designed in the woods of northern New Jersey: It's as black as pitch. Move closer, however, and a series of hard-edged planes gradually appears amidst the trees. *Like giant schist shards or cliffs of iron ore, the walls' planar forms and dark coloration reference the hillside site's previous use as a strip mine.* [PAINT.TXT]

First evaluations can occasionally be provided straightforwardly – and solely – in the Leads of the reviews. This is the case of example 18 below, where the reviewer uses an imagistic adjective derived from the name of a well-known architect ("Miesian") in order to qualify a building which, in turn, is metonymically referred to as "a Woolley" after the name of its former architect, Ken Woolley:

(18) Shushing outrage about the wrecking of *a seminal, Miesian Woolley*, Italy's Renzo Piano shows Sydney how to combine harbour breezes with high-rise living and global business ambitions. [PIANO.TXT]

Although image metaphors usually occur in the Introduction of reviews, these may also close with an image conveying the final assessment of the buildings at issue. However, the image metaphors in Closing Evaluations usually co-occur with expressions less visually motivated, as can be seen below:

(19) The whole often seems to be *a vast shallow vault supported on stalagmites – a metallic version of the caves in which we all began*. Perhaps the space is too noble for the vulgar cacophony of trade-fair stands. [3CHORDS.TXT]

(20) Zapata's supermarket is a beautiful object – *it hums with kinetic energy, sweeping along and up the street like an elegant, silvery comet.* [3WINDOW.TXT]

Finally, a given metaphorical expression may re-appear throughout the review, thus creating a figurative frame for the ensuing text. These frames may be established at different textual loci of reviews. Thus, they may occur in the first and Closing Evaluation of reviews, as shown in example 21:

(21) This year's jury felt strongly that successful environmentally responsible design increases human, environmental and economic performance simultaneously. The design team for the Marshall Street Addi-

tion to the Legacy Good Samaritan Hospital truly recognized this broader definition of energy and environmental design. *They literally and figuratively "thought outside the box."* Beyond the walls of this striking addition, planting areas connect patients, workers, and the larger community. [MARSHALL.TXT] *Thinking outside the box*, the design team realized that energy efficiency is not solely about the building's utility bills. [3MARSH~1.TXT]

This passage plays on the typological trend encapsulated in "box" in order to evaluate positively the building under review. Thus, although the term commonly refers to a familiar – and fairly neutral – building typology, in this passage the reviewer uses it for evaluating positively the work of an architectural team which succeed, precisely, in avoiding their building being a "box". The term, therefore, is recast with negative connotations.

Evaluative frames are often initially constructed in Titles and Leads, and are, then, exploited stepwise in the ensuing text. Indeed, the impact of the evaluation in both textual loci is intensified when authors re-use the images opening their reviews in later commentary, especially that found in first and Closing Evaluations. Passages 22 and 23 below illustrate this impact:

(22) *MAGIC BUBBLE. Hovering like a gargantuan blancmange above the Greenwich Peninsula*, the Millennium Dome is now an inescapable part of the London skyline. [MAGICB~1.TXT] Engineered by Buro Happold, it is the world's largest *membrane structure*. ... The hemispherical structure is clad in 80 000 sqm of Teflon coated glass-fibre panels. The smooth fabric surface is alternately hermetically opaque during the day and eerily translucent after dark; *at night the entire structure glows and pulsates like a giant jellyfish*. [2MAGIC~1.TXT] Fuller's fantasy of *a city enclosed in a transparent bubble* may yet not be too far distant. [3MAGIC~1.TXT]
The structure is *clad* in iridescent tiles creating a lusciously shimmering polychromatic surface. [CPMAGI~1.TXT]
Backlit translucent glass-fibre panels generate a seductively glowing surface. [CPMAGI~1.TXT]

(23) CHROMATIC CLOISTER. Legorreta designs *chambers of colour* for a new arts center. [LEAD] Legorreta's vibrant fuchsia, lavender, and purple are reserved for the arts center's courtyards, where one is surrounded by *oases of color* within a monochromatic suite of buildings. [CHROMA~1.TXT] ... In *these chambers*, one seems intentionally divorced from the city: Fuchsia and purple invoke a surpris-

ing sense of serenity, and the insularity of the courtyards gives respite from the sprawl of a modern campus and the retail strip that flanks the site. [3CHROM~1.TXT]

In example 22, the title "Magic Bubble" opens the review of the Millennium Dome in Greenwich with a vivid picture of the building. The subsequent text will refer readers back to this title by means of both non-figurative language (in the captions) as well as figurative expressions such as "gargantuan blancmange" or "giant jellyfish" in a pattern of metaphor diversification. Example 23 illustrates a similar strategy, relying, in this case, upon a mixture of repetition and diversification. Here the assessment of an arts centre in New Mexico pivots on its most outstanding characteristic: its colorful courtyards. Indeed, both the review's title and the lead call attention to the architect's treatment of color in this part of the building. Related expressions re-appear in the first and Closing Evaluation of the building. The images opening the commentary not only provide an evaluation focus, but also, and most importantly, create a frame exploited in the subsequent text.

In contrast, less visually oriented figurative language expresses architects' handling of spatial configurations, the building techniques used in construction, and the performance of finished spatial artifacts. Of all the metaphors involved in the assessment of the latter aspect, it is biology metaphors that are usually found at critically evaluative loci within the reviews' structure, which points to their functional relevance and saliency in terms of topic management.

Apart from focusing on built arrangements after construction, metaphors equating spatial entities to living organisms are also frequently used to draw attention to the design constraints in building design. Thus, reviewers may use biology metaphors for portraying a given situation as a problem. Accordingly, their instantiations are often found in the sub-step concerned with problem spotting within Introductions. Problems may concern the building itself (example 24), or the urban contexts where new buildings are to be sited, as in passages 25 and 26 on the next page:

(24) Stockholm's Royal Library has had *one of its periodic spurts of growth.* [LEAD] [The building] has been under pressure from its contents as more and more paper had to be accommodated. Spasmodically, the building has responded with painful conversions and expansions. The last but one was an underground bookstore, created

in 1971 to solve *growth problems* for the foreseeable future. [ROY-ALL~1.TXT]

(25) Unfortunately, in the urban sprawl following World War II, the centers of activity moved to the suburbs and *our downtowns suffered, losing their vitality*. ... Recent years have witnessed *a rediscovery of our downtowns as the heart and soul of a community and they are once again alive* with new construction and activities. *This rebirth* has coincided with a new emphasis on high quality design by our federal government ... [FEDERA~1.TXT]

(26) *You can make a silk purse from a sow's ear. The silk purse is the IMAX Theatre* at Darling Harbour, designed by Lionel Glendenning of HBO + EMTB; a building of high aesthetic and technical merit. *The sow's ear is a site in the middle of a still-born pedestrian wasteland* between towering freeway overpasses. [1IMAX.TXT]

The negative judgment in the first two passages relies on explicitly evaluative lexis (e.g. "unfortunately" in 25) as well as on instantiations of the metaphors BUILDINGS and CONTEXTS ARE LIVING ORGANISMS respectively. In turn, example 26 displays a powerful combination of a proverb and metaphorical language in the very opening of a review. These rhetorical devices work hand in hand in the reviewer's appraisal of both a building and its siting context. Thus, whereas the proverb provides the backdrop for the negative and positive evaluation of context and building respectively, the figurative qualifier "still-born" reinforces the negative views of the former, implicit in its reference as "the sow's ear."

The metaphorical language in passage 25 above may also be seen as rendering a human rather than merely organic view of the urban context at issue. Indeed, personification is a recurrent strategy for conveying product-focused assessments. This humanized view of buildings is often found at both the beginning and end of reviews, as in the following extract:

(27) *BACK TO SCHOOL.* Fifty years later, *Alvar Aalto's Baker House still celebrates student life*. [LEAD] The building *has worked* magnificently for 50 years; it is consistently among the most popular dorms on campus despite periods of *egregious physical neglect*. ... So how does one restore *a building that is at least as much about life as it is about form? The question is particularly thorny in the current postmodern era, in which building imagery* (be it classical or modernist) *dominates our definition of architecture, and "functionalism"* (a term Aalto bandied about generously) *has virtually dropped from*

> *the contemporary lexicon*. Fortunately David Fixler ... views Aalto's dormitory as *an architecture that "demands to be used, to acquire the patina of age – in effect, to generate history."* The top-to-bottom renovation of Baker House, which culminated in a rededication ceremony last October, *has breathed new life into a still-vital organism rather than mothballing a hallowed artifact*. In the two-phase renovation ... Fixler's team took important steps to preserve and extend the life of Baker House for generations of undergraduates to come. [BACKTO~1.TXT] *This building, which steadfastly refused to pretend it was old but never wore its newness with pretension*, is now an historic monument and canonic work of modern architecture. [3BACKT~1.TXT]

This passage exploits an organic and, at times, human view of the building at issue in order to convey both positive and negative evaluation. The human bias is implicit in "celebrates student life" in the Lead, an expression which plays with ambiguity since it may refer both to the use of the building as a student's dorm and to the renewed building *reliving* its student years – as also playfully suggested in the Title. On the other hand, an organic rather than specifically human rendering of Baker House is suggested in the problem spotting section as well as in the first evaluation at the end of the Introduction ("The top-to-bottom renovation of Baker House ... *has breathed new life into a still-vital organism rather than mothballing a hallowed artefact*."). In turn, these organic metaphors are mixed with instantiations of ARCHITECTURE IS LANGUAGE, used to criticize the growing concerns in building design with form at the expense of function. Finally, the Closing Evaluation goes back to the personified view of Baker House suggested in both Title and Lead.

A shift in focus from the buildings themselves to the actions taken by architects in their design and construction comes by the hand of metaphors drawing upon the domains of language, textiles, and music. As has been pointed out, given the richer number of entailments carried by the verbs realizing these metaphors, their evaluative scope is also broader, and often covers most of the issues involved in architectural practice, products included. This evaluative potential may be the reason why their linguistic instantiations appear to be more structurally salient, as suggested by their recurrent presence in critical evaluation loci.

Of these metaphors, those drawing upon the domain of language are particularly suited to appraisal focused both on product and on process. In

my view, part of the aptness of language-motivated metaphors lies in the fact that they often foreground the intertextual nature of buildings which, like textual artifacts, cannot be regarded in isolation but, rather, as belonging to a tradition which they themselves help to build in different ways. This figurative language helps reviewers to place buildings and architects within a given trend of practice, and to comment upon the final design achievement in concomitant ways. The following passages are particularly revealing of the evaluative potential of language metaphors:

(28) The Kwok house is different from the prevailing Sydney penchant for sleek value-free asceticism. Instead it is about *a plastic architecture that* makes complicated shapes, contains complex space and harbours *a rich lineage of modernisms ... It also evokes a modernism ... has been largely edited from any historical overview and remains relatively unexplored. ... Such a value-laden reading of the Kwok house* is arguably rarefied – but possible. At the same time, there are the more practical limits of site and context. ... Durbach Block were positively generous. They made the Kwok house like a giant planter box/retaining wall. The roof was even planted as a garden. By doing so, the new house disappeared from view entirely and became a visual extension of their neighbour's 19th century verandah. Inside the house, *the theme of inhabited wall is strongly developed.* [2WALL.TXT] While *the language of this house* – mostly white painted abstract concrete forms – could be conceived by many as orthodox modernism reworked, the overall result is something altogether more artful and also attune with the alternate pliability and friability of Sydney's coastal landscape. On one hand, it is as if this house has been laminated to its site. On the other, it is as if a giant retaining wall has been thoroughly eroded to become a percolator of light and air. With *either reading*, the house loses the self-consciousness of the pristine modernist container. Yet there are not the material and organic analogies of the Griffins at Castlecrag. Nor is the house about the romance of craft, nor the 'prospect-shelf/cave' of Sydney's feted placemakers. Nor is it a minor sibling to the heroic curves being given spectacular speculative venting by Harry Seidler. Instead, *the Kwok house perhaps describes a charmingly old-fashioned idea that through a lyrical re-reading of a useful structure ... invention might occur.* [3WALL.TXT]

(29) *The architect's reinterpretation of the steel house*, however, *is* robust rather than warmed over, *the result of successive hybridizations*. One

> reason is scale. ... the served-and-servant strategy of juxtaposed, short and tall volumes allows him to *join the typologies of loft and house*. The *architect then splices that blend into the tradition of the steel house, which had evolved before the concept of lofts rooted in contemporary life*. [2CUSTOM.TXT] In what would seem to be *a tradition already crowded by modernist masters, the very literate Myers has succeeded through a process of commentary, reference, and cross-fertilization in writing a sequel chapter in steel house design*. Contrary to first impressions, *it is a book that remains suggestively open*. [3CUSTOM.TXT]

As illustrated in these examples, the assessment conveyed through language metaphors often highlights the vast body of knowledge informing architects' work. Accordingly, successful architects are often judged as *literate*, and buildings are described as the media through which designers convey their *arguments*, *theses*, *predicaments* or *intellectual and graphic ruminations*. Likewise, the design process itself is frequently referred to as a *reinterpretation*, *re-reading*, *translation*, or *summary*, as well as the successful *editing* of previous practices or clients' wishes. Last but not least, the architect's achievement may be described as *a diary*, *comment* or *book*, and qualified as *legible*, *poetic*, *narrative* or *articulate*.

Passage 29 also instantiates an extension pattern (the co-occurrence of several semantically related metaphorical sources referring to semantically related targets), initiated in Move 4 within the Description part, and fully exploited in the Closing Evaluation of the review. Figurative frames built upon an extended metaphor are largely responsible for the thematic unity of the texts in which they occur. This, however, does not rule out their co-instantiation with figurative language drawing on other domains. Indeed, this is the case in this passage, where the experiment-informed expression "splices that blend" co-exists with language metaphors without diminishing their force.

In fact, many of the metaphorical frames found in the texts in the corpus are constructed through differently motivated figurative expressions co-occurring in diversification or mixed patterns. Furthermore, despite prevailing views on the lack of coherence of such metaphorical mixtures, it can be perceived that in discourse they often work together in the creation of a comprehensive view of the phenomena under discussion. For, as Friedrich (1991: 23) points out, "every poem and conversation depends – at least implicitly – on the collaboration of all of [the tropes] in a synergistic, si-

multaneous intertwining within every sentence and every line." Likewise, reviewers use diverse metaphors to tackle the complexities of building design, the metaphors helping them to foreground particular features and often reinforcing each other. This is the case of the following passage:

(30) PASTORAL IDYLL. A new gallery for paintings and sculpture is a *harmonious* addition to a sculpture park set in the grounds of Roche Court, an English country house. [LEAD] A graceful, *harmonious* addition to the place, it *steps up* the slope of the garden from the east side of the house to a small orangery on the east. [PASTOR~1.TXT] *Harmony is an increasingly rare commodity these days when architectural discord is in fashion. The architect's interpretation of the spirit of the place is* restrained and *lyrical*, and *the delicacy with which he has stitched the new to the old* recalls Foster's work at the Royal Academy [3PASTO~1.TXT]

Here, the musical frame first established in the Lead is used to articulate the first and Closing Evaluation of the building under review. This Closing Evaluation also relies on instances of a language-informed metaphor ("interpretation", "lyrical") and a textile metaphor ("stitched the new to the old"), which highlight the intellectual and artistic process of making a building, as well as the combinatory skills involved. The fairly simple mixture in passage 30 contrasts with the more complex metaphorical combination displayed in the following passage:

(31) THE GLASS FANTASTIC. *Architect/alchemist Eric Owen Moss* makes marvels out of the mundane in his latest Culver City project. [LEAD] *Eric Owen Moss, the architectural alchemist who turns base buildings into sites of revelation, has conducted another brilliant experiment in Culver City, California.* Moss has rescued yet another warehouse building from the sea of anonymity that stretches across the southern part of the Los Angeles basin. In this case, the architect and his clients have tried to, as Moss puts it, *"cross the boundaries of architecture into music"* with *a fantastic glazed canopy called The Umbrella that blasts out from the corner of the building like some great, unfurling, expanding force.* Intended for outdoor performances, the Umbrella sums up their reinvention of the basic warehouse, while pointing the way, Moss claims, "to something we cannot know." [GLASSF~1.TXT] *It works, like all public art should, to sum up, clarify, and transform its site.* If it has no particular function

> beyond the few days it may be used for concerts, *it serves as "a fossil"*, as Moss asserts, to remind us of his aspirations *to make an architecture that is as "strange, fantastic, and almost impossible" as any Pre-Cambrian life-form. It also makes visible the experiments in sound and form* that are embedded in the ad hoc, slice-and-dice urbanism the Smiths and Moss are creating in Culver City. *It is the crystal made by crunching together all the construction already on the site. Out of it, a whole new universe of forms can grow.* [3GLASS~1.TXT]

The assessment of this building designed for musical performances is established through an experiment frame first introduced in the Lead, and exploited in the Introduction of the review. Furthermore, the first evaluation is conveyed by means of both language and motion metaphors, the latter highlighting the innovative nature of the building. Finally, the Closing Evaluation repeats the language-motivated expression "sum up", mixes it with the comparison of the building with a "fossil", goes back to the experiment frame and, finally, closes with language loaded with a mixture of cosmic and biological connotations. The passage is also a good example of judgments coming from two different sources: the architect, whose views are cited in the text, and the reviewer. This dual focus is further discussed in the following section.

3. The angle of telling: Figurative language and authorial positioning

> It is commonplace for writers to describe [buildings] using comparisons to non-architectural phenomena which the reader is assumed to be able to picture easily. ... Comparisons ... are usually based on some point of physical resemblance between the terms, but they are obviously not just descriptive: the comparison is also implicitly an evaluation. ... Comparisons of buildings with objects other than buildings, then, are rarely intended simply to provide concrete descriptive information. The object or phenomenon to which a building is likened may indeed resemble it in some particular way, but it is also selected for the associations it carries outside the domain of architecture. Metaphors which are less concrete ... are also loaded with evaluative meaning. (Markus and Cameron 2002: 108)

When reading descriptions where built structures are portrayed as *tadpole-like* and spatial volumes are referred to as *dormitory pods*, it may be asked whether such expressions respond to the need of reviewers to be as informative and accurate as possible or whether this language articulates personal appreciations of the entities under review. In other words, one is led to ponder upon the degree of objectivity and subjectivity involved in spatial descriptions that depart from the use of conventionalized language (however figurative) in architectural reviews. Regarding metaphor as a heuristic device for providing a fresh perspective on old topics, for articulating a difficult topic in more accessible terms or for foregrounding certain aspects of the issues discussed at the expense of others necessarily brings such concepts as evaluation, stance, and judgment to the frontline. Metaphor is anything but neutral.

Of course, metaphorical expressions like those above often capture what the buildings under focus look like, which may suggest that this is the only, or perhaps the least controversial, way of describing them. However, as Markus and Cameron (2002) point out, the choice of metaphor is inevitably tinged with personal inclinations and perceptions; that is, it is intrinsically subjective and evaluative. This is the case whether it is effected ad-hoc or draws upon the repertoire of conventional figurative schemas used in the discipline. For, what objective or intrinsic traits of a building determine its description as a *fish tank*, an *aviary*, or a *transparent box*? Are there any particular characteristics shared by such entities and the buildings thus described that underlie the choice of one expression or another?

Even more complex are those instances where reviewers evaluate architects' achievement as being *an umbilical cord with the past*, or as *distil[ling] bold, tectonic poetry out of a utilitarian brief.* Instead of highlighting features that pertain to buildings *per se*, expressions like these articulate the personal interpretation of what certain structures and arrangements look like, how they relate to other structures, or function within the whole. For although architectural appreciation may start from visual perception, no critical text in architectural discourse focuses solely on the aesthetic properties of the architectural topic at issue – be it a particular design trend or a building. Rather, authors (reviewers in this case) always refer to the intellectual motivations underlying architectural aesthetics. This may be partly determined by the complex nature of architectural practice, but also points to the needs of architects in their *verborum* facet to demonstrate their interpretative skills. That is, that they are literate or authoritative enough to play the role of judges within the architectural community.

Nevertheless, the power and authority of reviewers in building reviews is relative, and is constrained by the professional status of the genre's readership. Indeed, although the privileged position of reviewers is one of the basic assumptions of reviewing practices in general, in building reviews the authority of authors is not derived from their higher status in terms of expertise. On the contrary, it arises from the unstated acceptance of both the *verborum* and *ingenio* parties to play different roles in the genre – from the acceptance of certain architects to play the role of *architectus verborum* at a given point for their *ingenio* peers, who share a worldview, language, concerns, and professional skills. In other words, as happens in, for instance, academic papers, building reviews rely upon a contract among specialists, described by Nash (1990: 19) as "the 'internal' compact with one's fellows in the field, a tacit covenant amounting to a professional conscience."

In this sense, face and politeness are important issues in the genre, and, indeed, motivate the interpersonal strategies deployed by reviewers for negotiating the views articulated in the texts with their audience. In fact, many uses of metaphorical language in building reviews can be related to the pragmatics of politeness.[60] As documented in such classical works as Leech (1983) and Brown and Levinson (1987), politeness refers, in the first place, to the strategies deployed by authors to avoid hurting their audience's feelings or questioning their knowledge – that is, the strategies related to the audience's *negative face*. Politeness also motivates the strategies deployed by reviewers in order to be appreciated as valid judges within the community, seeking concord with their readers while preserving their

own *positive face*. These strategies play a crucial role in building reviews, where the reviewers' assessment may be controversial and, therefore, potentially face threatening for both authors and readers as well as for those architects whose work is being critically assessed in the genre – i.e., the three main participating sides in a review.

Indeed, the negotiation of evaluation in reviews is often not unproblematic, as the following example from the corpus illustrates:

(32) *"Mies in the microwave"* is how Moss describes *this tour de force of glass construction*, which shattered several times before the laminated pieces actually held their form. [GLASSF~1.TXT]

In this passage, a glass-and-steel construction is evaluated by both its architect and a reviewer. The former refers to his work as "Mies in the microwave", a statement which, given the assumption that no architect would evaluate his/her own work in negative terms, may be read as a positive judgment of the building at issue. This interpretation is reinforced by the positive connotations of the reviewer's reference to the building as "a tour de force." Indeed, when given this passage, an architect-informant understood "Mies" as encapsulating a well-known building typology characterized by a minimalist design based upon simple, pure forms and making use of few but carefully chosen materials. However, he interpreted "in the microwave" as a negative appraisal of the building at issue, rewording the whole expression as "a bad cooking of Miesian ingredients" – meaning that the building may look like Mies's work, but does not reach its virtuosity.

The informant's reaction is interesting in two respects. In the first place, he immediately remarked that the term "Mies" encapsulated both visual, concrete knowledge and intellectual, abstract information. This draws attention again to the complexities of figurative language in architectural discourse discussed in earlier chapters, where questions were raised about the assumption that conceptual and visual knowledge represent two different types of knowledge. Secondly, the architect's interpretation suggests that "in the microwave" alludes to Moss's inability to follow the guidelines established by Mies van der Rohe and, in this sense, is solely concerned with abstract information. In fact, it is this qualifier that provokes conflicting views of the building assessed in this way. For, although the expression may well be used to convey a positive evaluation, the informant did not hesitate to interpret it as a negative commentary.

A possible reason for these conflicting views is that, whereas "Mies" alludes to the disciplinary knowledge shared by architects (in this case, by the architect of the building under assessment, the architect-reviewer and the architect-reader), the term "microwave" may trigger two different scenarios, each yielding a different reading of Moss's work. Thus, "microwave" may well represent a cooking scenario whereby Mies would be a recipe maker, a *virtuoso* cook setting guidelines for future work. In this sense, using a microwave may not be the procedure one would expect from a renowned cook – regardless of the advantages of such an appliance in everyday life. The negative connotations of microwaves in such a cooking scenario are implicit in the way in which the architect-informant interpreted the expression, which suggests that he understood the expression in this cooking frame. However, "microwave" may also well instantiate a visual image referring to a particular type of oven looking like a glass-fronted box. In this latter case, the image is not negative but simply points to the external appearance of Moss's building.

Had the expression been used in an oral interaction about the building, it might have been easily disambiguated. However, since it occurred in a written text, its interpretation relied upon how the reader made sense of the expression according to his/her own knowledge. The example thus illustrates the difficulties intrinsic to the use and interpretation of certain metaphors in written communication.

Nevertheless, the corpus did in fact yield cases where similarly complex expressions where marked by linguistic devices that helped to narrow the scope of their evaluation and interpretation. This suggests that reviewers are not unaware of the potential ambiguity of metaphorical language, and therefore follow strategies to negotiate or indicate how their commentary should be interpreted by the readers of the texts. A common strategy is to mark the figurative language used in their assessment with lexical and orthographic (hedging) devices. A closer look at the reviews in the corpus suggests that unmarked metaphorical language is also used as a discourse strategy in its own right. Personification is a case in point of metaphor used for face-saving purposes.

The question addressed in the following sections, then, is how metaphor is mobilized by reviewers to add an axiological perspective to the objective facts concerning buildings without entering into conflict with their peer audience on the one hand, and the architects under evaluation on the other. That is, how metaphor is used to keep the fragile – however tacit – contract

established between *architectus verborum* and *architectus ingenio* in the genre.

3.1. Looking properly

> In order to appreciate architecture, before thinking, we must look; we cannot think properly unless we also look properly. However, it is difficult because there are many tendencies, many different forms of expression. (Alvaro Siza. Interview in *El País Semanal*, nº 1366 1st December 2002)[61]

The interpersonal strategies accomplished by means of figurative language reflect the professional status of all participants in the building review genre, and, most importantly, the visual bias of architecture itself and its texts. It is important to bear in mind this visual component because most commentary in reviews focuses on what is explicitly shown through drawings and photographs and, therefore, the readers may contrast this commentary with the images in the texts – let alone the architects being assessed who, of course, do not need those visuals to follow the texts. The visual-abstract focal attention characterizing most commentary in building reviews thus illustrates Siza's remark (above) that the appreciation of the abstract, intellectual properties of architectural work cannot be achieved without taking into account its visual, physical qualities. However, as this architect also suggests, "looking properly" – and, presumably, judging properly – is often fraught with difficulties given "the different forms of expression" articulated through buildings.

Indeed, although assessing buildings according to their physical, visually aprehended properties may seem a fairly uncontroversial affair, this is not always the case. The following example, discussed with two architects, may be used to illustrate this point:

(33) The opera house (still under construction) terminates the western end of the site, the *ocular* planetarium and the science museum fill the center two-thirds, and Candela's still-unfinished open-air aquarium completes the eastern end. ... Fixed glass skylights span each of the side arches; beneath those, *a bonelike cage of steel ribs*, controlled by pneumatic struts, *can open and close like an eyelid, revealing the sunken, tile-encrusted orb of the IMAX to the outdoors*. ... The allusion to a blinking eye is impossible to miss. *Calatrava's building becomes an icon of the Enlightenment-Claude-Nicolas Ledoux's en-*

> *graving of his theater at Besançon held in a Newtonian eye, or Louis Etienne Boullée's design for a "temple of reason" – writ large and in concrete.* The architect admits *a "longtime obsession to make a building like an eye,* which through several trials in sculpture led to the basis of the Lyon Airport Station [1994]." While Ledoux and Boulée found power in the simplicity of platonic solids, particularly the sphere, Calatrava's impulses come from nature: the structures of animal skeletons, feathers, crustacean shells, and the human body. [2BUILD~1.TXT] *The eye-shaped planetarium appears to float* in a shallow reflecting pool. [CPBUIL~1.TXT] Visitors enter from the east, descending into a subterranean ticket lobby before entering *the theater*, which *doubles as a planetarium*; stairs outside *the orb* lead to the plaza level, beneath the giant vault. [CPBUIL~1.TXT]

This passage is concerned with judging the work of Santiago Calatrava, an architect characterized by drawing inspiration from nature. The reviewer organizes his report around the resemblance of this planetarium to an eye, gradually specifying that the main descriptive focus is the shape of the building rather than any other aspect. Thus, his account starts by describing the building as "ocular", an adjective that incorporates the source involved in the underlying metaphor, but gives few clues as to which eye traits might be shared by the building so qualified (the building may look exactly like an eye, merely recall it, or function like an eye). Further description of some of its component parts as "spherical" and "elliptical" reveals that the assessment pivots on external appearance. However, focus on function is highlighted in the description of the support system opening and closing "like an eyelid." In fact, it is the adjective "eye-shaped" in one of the captions which clearly points to the specific characteristic foregrounded by the metaphor. Moreover, the visuals explicitly illustrate the physical resemblance of Calatrava's building with that bodily organ, thus reinforcing the reviewer's assessment. This example is a good illustration of how reviewers may manipulate their texts by delaying detail, disguising, to some extent, the real focus of their assessment and, by so doing, ultimately bolstering their self-image.

Unexpectedly, the passage provoked an adverse reaction in my informants, who categorically stated that the interest of an "ocular" building did not lie in external appearance but in function, that is, in the *ability* of such a building to capture light and open itself to the exterior, regardless of its external appearance. They thought that the reviewer's assessment rested

upon the easiest, most irrelevant aspects of Calatrava's building – however impressive and eye-shaped this may actually be. This suggests that they might have preferred an exploration of the rationale informing its design. One of them finally added that, given the obvious physical similarities of the planetarium with such a bodily organ, the review proved fairly redundant or futile since it rested upon something any lay person could easily perceive. The architects' reaction to the reviewer's commentary in passage 33 suggests that of all the aspects involved in design practices, it is the aesthetic dimension of the final result that appears to be easiest to evaluate and/or illustrate, yet, at the same time, is also susceptible to provoking adverse reactions. Likewise, the metaphors used for this purpose appear to be more readily interpreted by architects, but may also give rise to disagreement and discussion. Thus, a metaphor, however apt, may be felt by some expert readers to insult their understanding or, simply, to articulate what is but a subjective appreciation of a given building.

The subjective bias of certain image metaphors may also be highlighted by the patterns into which they are instantiated, particularly adjectival patterns (*ocular*, *eye-shaped*, *bonelike*), similes (*like an eyelid*), and motion verbs (*hover*, *float*), all of which exhibit a subjective, intrinsically evaluative flavor. Thus, when outlining the different realization patterns of image metaphors in Chapter 6, attention was drawn to the evaluative and subjective quality of adjectives incorporating suffixes *-y* and *-oid* (e.g. *boxy*, *cuboid*, *clothoid*) and, particularly, of Noun-like derived adjectives. In fact, the latter are the compressed version of many of the comparisons and similes found in architectural descriptions, so one can find a building first described as being *like a ship*, and later qualified as *boat-like*. The adjectives, then, retain part of the original comparison in their form and, likewise, call attention to the agent who regards the two entities as alike. Subjectivity may be further enhanced by the nominal source involved in the derived adjective, as happens with adjectives like "shell-like", and "winglike" (below), neither of which encapsulates well-defined shapes or geometries but attempts to convey a general impression of the building under commentary:

(34) Set at one extremity of the airfield, *the building is a huge shell-like structure emerging from a grassy mound* ... This toroidally generated *shell – like the sliced half of an odd bi-valve – is slashed around the base by a crescent of glass* and enclosed where sliced through by a glass wall. [2FLYING.TXT]

(35) Only after emerging from under the low, east-facing veranda of the studio does Murcutt's hall come into view, *its soaring, winglike roof a grand gesture of greeting to arriving students.* [2BETWE~1.TXT]

This is also the case of like-/as- phrases, which tend to co-occur with verbs and adjectives that are also figurative. Many combinations of this kind appear to be primarily concerned with providing an accurate description of the buildings at issue by drawing upon identifiable non-architectural images. The resulting picture, however, is intrinsically evaluative and subjectively biased:

(36) *Like a sexily dressed woman,* the building reveals glimpses of itself through the fabric of its enclosure. [225FLO~1.TXT]

(37) The main *building is a fusion of architecture and landscape, conceived as a microcosm of Arabia,* that will house exhibitions on history, culture, science, archaeology, technology, ecology and arts and crafts. [SAUDIA~1.TXT]

(38) The basic parti of two distinct elements – *extroverted* living spaces and *introverted* bedrooms – are expressed as compellingly *as the simple gesture of an open palm and closed fist.* [2CUTS.TXT][62]

The most arresting case of subjectivity or authorial intrusion involves intensive patterns with copulas other than *be*, particularly perception and resemblance verbs. Since the metaphors instantiated in this way are visually oriented, the copulas may be seen as indices of perception modality: they draw attention to the viewpoint from which the description and/or evaluation is angled. The following examples are illustrative of this point:

(39) For lighting, the architect inverted industrial-strength metal-halide lamps, outfitted them with sanded-acrylic collars to diffuse the light, and stabilized them with guy wires. *The expedient fixtures, with their flat discs, look saturnine and futuristic as they emit a bright, white light.* Studio Works built the environment up from humble but intriguing basics. [2MONTE~1.TXT]

(40) Approaching the building at night, *the restaurant reads as a luminous band across the facade*; the silhouettes of diners black against the bright interior. [2DINING.TXT]

(41) On the southern side, *the dark green painted steel plate cladding resembles a distorted ship's hull*; *the strong geometrical forms recall naval engineering. ... The 'head and tail' configuration recalls the*

serpentine dragons that are paraded through the city during the traditional Dragon Festival and helped to suggest the name for the complex. [2DRAGON.TXT]

(42) *The entrance's eroded outside corner suggests the zoomorphic outlines of a long-necked, prehistoric creature.* [2BETWEEN.TXT]

The type of verb used in the expressions may thus enhance the subjective and intrinsically evaluative effect of the commentary, which is often aided by the metaphorical terms used as subject complements (e.g. "saturnine and futuristic" in passage 39, or the *prehistoric* complementation in passage 42). Indeed, these complements are sometimes solely responsible for the evaluative impact of the metaphorical expression. This is particularly the case of images drawn from cultural domains (cf. Chapter 5), all of which are essentially evaluative, especially those instantiated by architectural sources. The evaluation in such cases is discipline specific and most meaningful for the members of the architectural community. By way of illustration, consider the examples below:

(43) *Living room is glass box* whose flat roof is penetrated by concrete masses of top floor. [CPINFI~1.TXT]

(44) No two floor plates or formations of staggered concrete-wall planes are alike. New is tied to old in a variety of ways – bridges, internal staircases, walkways that meet low walls, requiring people to sidestep en route to and from the amphitheater. *The effect is Piranesi without the menace.* [2CREAT~1.TXT][63]

Both 43 and 44 exemplify copular metaphors with *be*, but the qualification in the first feels more objective than that in the latter. The difference lies in the nature of the image sources involved in each case, which suggests that, in principle, the more geometrical the source, the more objective the metaphorical expression. In contrast, qualifying something in terms of the styles of other architects (however canonical and recognizable these may be for any architect) always encapsulates the reviewer's judgment and appreciation.

Nevertheless, this does not mean that geometrical images cannot be understood as subjective as well. Indeed, expressions incorporating geometrical forms raise the question of whether visually driven, image metaphors prompt the retrieval of information that is not solely topological. In other words, can they go beyond a referential and descriptive function? The topo-

logical quality of image mappings has often been invoked as underlying their *inferential poverty* when compared to the richer knowledge and inferential structure projected by other metaphors, and this makes them less suited for evaluation (Lakoff 1987b; Lakoff and Turner 1989). But, let us suppose that an architect adheres to an architectural trend that rejects cubic forms as suitable geometries for built artifacts, preferring instead curved lines following a more organic view of architectural space. Although she/he may accept the reference to a building as a *box* or *cube*, she/he might also interpret the expressions as encapsulating a negative evaluation of that referent because of his/her own aesthetic concerns. Furthermore, she/he may utterly disagree with this evaluation, and react accordingly towards the whole review.

Part of the reviewers' job will consist, then, in foreseeing such reactions. In this sense, reviewers may gradually take audiences to their own ground by strategically delaying the provision of detail in reviews. This is also suggested by the diverse ways in which the metaphor A BUILDING IS AN EYE in passage 33 seen earlier is instantiated. Thus, we have adjectives like *ocular*, as well as expressions introduced by the comparison marker *like* (for instance, the architect's statement – quoted by the reviewer – of being obsessed with making *a building like an eye* which, although explicitly verbalizing the metaphor underlying his design does not point to which traits of eyes have actually been used in the process. Their lack of explicitness and, therefore, wide interpretative scope may occasionally be strategically exploited by reviewers in order to reach explicitness step by step as the text unfolds. In contrast, figurative patterns explicitly signaling the trait involved in the mapping (e.g. Noun-shaped adjectives) supply the means to achieve an accurate description since their interpretative scope is more restricted.

In fact, of all the possible types of metaphor, it is those involving visual information that yield the greatest range of linguistic instantiations which show various degrees of explicitness. Thus, a metaphor equating a building to a box may be realized in such different expressions as a *boxy*, *boxlike*, *box-shaped* building, in simile form, or by incorporating in the expression any source entity resembling that geometric shape. Together with construing reality in a particular way (emphasizing certain facets and downplaying others in response to both cognitive and linguistic constraints), such metaphorical instantiations supply reviewers with a range of devices to cover their communicative needs.

Similarly, figurative verbs may also be subjective and evaluative however entrenched they may be in architects' conceptualization of space. The most conspicuous cases are verbs that instantiate the metaphors FORM IS MOTION and MOTION IS FORM, used to describe the relationship between buildings and their sites/contexts in dynamic terms, and verbs that realize a malleability schema, portraying space as malleable, raw matter. The latter type is illustrated below:

(45) *Instead of stacking the building blocks wedding cake-style*, de Portzamparc *chamfered them, pinched them, skewed them, and sloped them*, discovering a few tricks along the way. [225FLO~1.TXT]

This passage shows how a reviewer uses such expressive verbs as "stack", "chamfer", "skew" or "pinch" to describe some of the processes involved in the making of a building. Apart from their primarily descriptive role, these verbs also convey an evaluation, in the sense that they encapsulate the way the reviewer has interpreted the architect's intervention. This authorial presence is implicit in the textual rendering of the metaphorical expression, which, in turn, suggests that the reviewer is consciously exploiting metaphor in his commentary. In fact, the vivid description of the architect's achievement in the skyscraper under review not only relies on lexical choices, but also on rhetorical devices such as parataxis and juxtaposition, which contribute to the expressive force of the verbs employed.

Likewise, although we have seen that architects customarily describe static spatial volumes as dynamic entities, such descriptions may depart from the fairly conventional rendering of buildings as *run[ning]* or *sit[ting]* in their sites. The corpus yields many cases which offer instead a more suggestive and personal portrayal of spatial arrangements through verbs such as *clamber*, *crouch* or *melt*, or those used in the passages below:

(46) *One geologically contoured part of the building heaves up from the site like surrounding pre-Alpine hills rising out of the valley*, while *another part thrusts toward the intersection in an eruption of angled volumes caught in seismic upheaval.* [2HIDDE~1.TXT]

(47) The masonry-framed building's interiors are as spatially complex as its outward form suggests: *sliced, canted, jostling spaces that slide around and between the concrete sections like a bustling crowd.* [2OUTOF~1.TXT]

The dynamic construal of static scenes in these terms may, of course, be the result of architects' acculturation into a specific ideology: indeed, such language reflects the obsession of contemporary architecture with movement – as explicitly stated in some reviews, and amply discussed in earlier chapters. However, to claim that this construal is neutral or objective is another matter altogether.

At the same time, many such figurative expressions are orthographically and lexically marked as schematized in Table 8:[64]

Table 8. Hedging devices and metaphor

	N° occurrences	**%**
ORTHOGRAPHIC DEVICES		
Point to figurative or unconventional quality of expression (inverted commas)	20	13.7%
LEXICAL DEVICES		
Point to illusory, fictive or subjective quality of expression (e.g., *seem, appear, a kind of, a bit of, a sort of, apparently, as if, somehow, almost*)	57	39.0%
Narrow interpretative scope (e.g., *technical, architectural, visual*)	44	30.1%
Signal figurative quality of expression (e.g., *metaphor, metaphorically, figurative, literal*)	25	17.1%

This textual rendering, on the one hand, stresses the subjectivity of the expressions used, and, on the other, reveals a reviewer carefully and consciously designing his/her commentary. In this regard, it is curious that of all the hedged figurative expressions in the corpus 86.3% correspond to metaphors highlighting visual traits, even if, as already pointed out, the traits evaluated through these metaphors are often displayed in the photographs and plans in the texts. However, why imagistic expressions rather than other types of figurative language should be so hedged is somewhat

puzzling. Given the visual bias of the discipline, one would expect that it would be the reviewer's use of non-visual metaphors that would generate conflicting views, because such metaphors highlight spatial properties which are difficult to represent in graphic form, and, presumably, to appreciate and/or understand. In other words, it would not be surprising to find comments equating buildings to *piece[s] of environmental braille* or *simultaneous melodies or separate instruments playing their own part of a symphony* accompanied by hedges, as they interpret rather than simply describe. Before taking this point further, let us see how image metaphors are hedged in the corpus.

Hedging may involve the use of orthographic devices like inverted commas, as shown in the following extracts from the corpus:

(48) The business-like Genetics Institute is oriented towards the street rather than the square, and linked to the lower Helix Gallery by *a 'ski slope'*. [2GENET~1.TXT]
(49) They imposed no stylistic requirements other than a request for *"organic" architecture.* [2INTHE~1.TXT]
(50) *The "saddle back"* and slope *of the land* permitted a split-level solution: a lower, partial story and an upper one, with on-grade access to both levels. [2HOSPI~1.TXT]
(51) Glazed walls and doors dividing the living areas from the sun balconies would be backed below waist height by a vertical layer of sand-coloured terracotta *"baguettes"* (bars measuring about 1200 x 40 x 40 mm) set apart in a 50 percent transparent pattern. [2PIANO.TXT]

The use of inverted commas, however, represents a small percentage of the hedging strategies in the corpus. Indeed, these usually involve the use of lexical devices that may be further classified according to their specific role in the expressions where they occur. In the first place, we have terms that explicitly state the figurative quality of the architectural commentary, as shown below:

(52) While Cracknell, Lonergan, MacMahon and Nicholas have skilfully layered the geometry of the existing building, *Richard Goodwin, metaphorically, has dumped the guts on the footpath*. But what is the point of that? This is the artist ... [3PARAS~1.TXT]
(53) *Metaphorically, the mass is supposed to have been eroded by time and weather, so revealing its strata*, and allowing openings to be, created for access and light. ... *Metaphors continue inside, where the*

spaces are supposed to have been influenced by the nature of the ocean: surging, fluid, changing as you move round, non directive, with a life of their own. [3OCEAN~1.TXT]

(54) That discussion [held between architects and clients] soon led to *ideas of garden, the metaphor that began to inform their design studies*. But while the new Philmon Branch Library embraces the idea *literally* with a small outdoor space, *nonliteral* notions of garden did more to germinate this inventive building's abstract qualities as a salve for the sensory whipping delivered by its suburban context. [TIGHTB~1.TXT]

As illustrated in these passages, *metaphorically*, *literally*, *metaphor* and the like not only signal the figurative quality of the language used by these reviewers in their assessment. Such terms also temper the categorical and factual nature of the claims expressed by means of this language. Thus, in passage 52 "metaphorically" does not point to the figurative quality of "guts": this term and its synonym "bowels" are conventionally used to refer to the underground spaces of buildings (however blatantly metaphorical these may feel for someone outside the architectural community). Rather, the adverb draws attention to the interpretative and, therefore, subjective nature of the reviewer's commentary and, in this sense, plays a hedging role.

Another group comprises terms that narrow the interpretative scope of the expression(s) they modify. This is the main role of the adverbs *technically*, *visually*, *aesthetically*, and *architecturally*, and of adjectives like *architectural* and *visual*. The following passages illustrate how authors use them in reviews:

(55) The Japanese architect clad his arced exterior (at right), *technically a clothoid curve*, in 6-by-62-foot precast concrete panels. Each panel curves on two directions. [CPSCIE~2.TXT]

(56) The sparsely landscaped lawn, enclosed by a monolithic fence and a row of evergreens, was justified primarily as a way to buffer *the noise,* both aural *and visual*, *that is certain to kick in* when the adjacent corner lot becomes a gas station or convenience store. [2TIGHT~1.TXT]

(57) Modest in size, the house draws our attention through contrasting shadow and light, *architectural brawn and visual dexterity.* [2INTHE~1.TXT]

(58) [The architectural team] *toned down their work to the architectural equivalent of easy listening on this commission*: The strident juxtapositions expected of them have been tamed, perhaps to sustain the impression that customs and immigration officers are kind and gentle. [RAINBOW.TXT]

A third group comprises lexis that helps modify the propositional information in the expressions and, at the same time, reflects the degree of the reviewer's commitment to its truth-value. This is the case of the adverb *almost*, and such strings as *a kind of*, *a sort of*, *little more* or *a bit like*. Consider the following:

(59) They have created *a building that almost melts*, as if in permanent drought. [CONTOU~1.TXT]
(60) [The vertical space] is a bland, smooth, impersonal plane of curtain wall which might (with much good will) be compared to for instance Arne Jacobsen's taut, well proportioned 1950s glazing, but in a more gloomy, and perhaps more accurate perspective *it becomes an almost scaleless slippery cliff*. [2INTWO~1.TXT]
(61) The truly startling, *almost surreal*, element of the composition is the uppermost bedroom floor, *a massive poured-in-place concrete box hovering, apparently unsupported*, over the living room and its adjacent terrace. [2MACHI~1.TXT]
(62) [The theatre] is conceived *as a kind of boîte à miracles*, with a network of galleries, bridges, bars, balconies, foyers and dressing rooms carefully slotted into the interstitial spaces around the auditorium. [2THEAT~1.TXT]

As illustrated in these passages, lexical devices of the three types described often co-occur in the same textual stretch. The figurative language hedged in this way suggests that reviewers may be aware of the somewhat unconventional nature of some of the language used for describing buildings. Their use of terms like *technically*, *architectural* or *visual* illustrated above may also respond to their quest to be correctly interpreted. They thus guide readers towards understanding the qualification of a building's "brawn" and "dexterity" (cf. passage 57) within the architectural realm, specifically, the visual facet of this qualification.

However, figurative language hedged in some reviews is very often found devoid of marks in others. For example, "melt" and "hover" in examples 59 and 61 usually appear in expressions that are more assertive than

the ones illustrated here. This is also the case of the verbs "grow" and "float", which are hedged in passages 63 and 65 (below) by means of the verbs *appear* and *seem*, yet are frequently found devoid of such markers, as shown in passages 64, 66 and 67:

(63) *An array of columns*, once again bearing olive trees, *appears to grow from the very waters of the pool*, subtly arching to a high point at the centre, shielding the visitors with a dome-like canopy reminiscent of the curvature of the sky. [2MEMOR~1.TXT]
(64) *The [canopy] grows with complexity and energy* as it surges from the protective brick base into a sort of splintering canopy. [3PARAS~1.TXT]
(65) The exposed edges of the concrete walls and roof create *a thin frame* that sets off the richly hued stone surface, *which seems to float above the sidewalk* as the ground beneath it slopes down toward the garage. [2SUBURB.TXT]
(66) *The roof volumes float ethereally in the stunning landscape*. More than three-quarters of the building is buried underground. [CPBURIED.TXT]
(67) A similar strategy informs the learning Resource Centre (or library), *a free-standing inverted cone which floats on a polygonal timber deck within the lake*, and is unquestionably the most contentious element of the entire complex. [2CAMPU~1.TXT]

The focus of attention in all these examples is what the buildings under assessment look like. Thus, the verb "grow" is used to describe the vertical *movement* of columns and a canopy in examples 63 and 64 while emphasizing the upwards direction of that movement.[65] In turn, "float" conveys lack of support or, more specifically, the visual illusion of being unsupported created by architectural forms, a sense illustrated in all the passages above. However, the assertive tone of passages 64, 66 and 67 contrasts with the non-assertive flavor of passages 63 and 65 which, indeed, are more true-to-life than the former three since they point to the illusive, fictive quality of the motion conveyed by means of "float" or "grow".

The lack of systematicity of the marking procedures used in the texts in the corpus suggests that hedging may well depend on individual authorial styles. Consider, for instance, example 58 above. Here only "easy listening" is hedged by the expression "architectural equivalent of", while equally figurative expressions such as "toned down" or the metaphorical mixing in "strident juxtapositions ... have been tamed" are not. Yet both

might have benefited from a little disambiguation as well. Likewise, although equally concerned with fictive motion (and are, I would suggest, even more blatantly metaphorical) verbs such as *squat*, *climb*, *clamber*, *hover*, *crank* or *fan* appear in the corpus devoid of any hedging device.

Nevertheless, despite this inconsistent use of hedges, the marked metaphorical instances point to reviewers' attempts to appear to disengage from the views conveyed through the metaphors they use. At the same time, hedged metaphorical language draws attention to the interpretative – as opposed to the factual – quality of the assessment articulated in reviews. In short, the commentary conveyed through image metaphors appears to be more subjective, and is often tempered by means of lexical and orthographic hedges. The question is why would reviewers want to tamper with the assertive tone of language which, nevertheless, may be easily related to what is graphically displayed in the texts?

The greater subjectivity of image metaphors in reviews together with their higher occurrence with hedges suggests that of all the traits susceptible to being commented upon in reviews, it is the aesthetics of a given design that appear to be particularly face-threatening for the participants in the genre – all equally literate in visual terms. In this sense, image metaphors may be used by reviewers as part of the mitigation and shielding strategies in reviews: since architects already know their own work, and readers can *read* the images in the texts and, therefore, agree or disagree with the corresponding explanation in the main text, one way to avoid confrontation is to keep the commentary as open or non-categorical as possible.[66] For claims that a given building *suggests the zoomorphic outlines of a long-necked, prehistoric creature* may always be contrasted with its graphic display in the visuals accompanying such a commentary. The reviewer's description may, of course, influence the reading of the text's images, yet since she/he does not categorically assert that this *is* the case, readers may interpret the images in a way different from the reviewer's and, of course, from the architect's own conception of the building. By choosing the verb "suggest" instead of the more assertive *be* the reviewer is, then, safeguarding both his/her face as well as that of the architect under evaluation and that of the readers of the review.

In short, given that architects can read and interpret the visual data in the texts without the reviewers' mediation, the commentary of the latter needs to be mitigated rather than categorically presented in order to avoid being dismissed as inappropriate or far-fetched when compared to the information provided graphically. In this regard, the fact that visual metaphors are often

more hedged than non-visual metaphors is far from surprising. The more subjective and hedged flavor of visually-driven language may thus help reviewers to fend off criticism by hinting that it is their own selves upon whom buildings suggest images of *musical instruments*, *caves of mysteries*, *geodes*, *bellies of squashed zeppelins* or other such entities.

But, if it is necessary to carefully craft the commentary focusing on what, in principle, is easier to convey for the sake of face and politeness, what happens with the commentary that pivots on the abstract traits of buildings?

3.2. Thinking properly

It might be expected that the more abstract or ambiguous the commentary, the more susceptible to triggering diverse interpretations and, therefore, potentially the more face-threatening, since readers may not understand what is going on or see the reviewers' account as an exercise of verbal virtuosity or self-congratulation – the latter being the main risk run by reviewers with regard to the architects at issue. However, a close look at the corpus did not meet these expectations.

Contrary to the case of image metaphors, the figurative language used to explicitly evaluate the reasoning behind a building is less hedged (representing only 13.7% of hedged instances in the reviews analyzed). The hedging strategies are, nevertheless, the same as those employed with image metaphors, and fulfil a similar role, as illustrated below:

(68) The library is designed to respond intelligently to external and internal environmental criteria, adjusting its *'breathing'* as conditions alter from day to night, summer to winter. [2SELLIC.TXT]

(69) A number of the chosen *"healthy"* materials were locally produced. [2MARSH~1.TXT]

(70) In fact, the house's form is so totemic, so familiar, that *it seems to have a personality, albeit an empathetic rather than emotive one.* [2STUDIO.TXT]

(71) Eric Owen Moss, *the architectural alchemist* who turns base buildings into sites of revelation, has conducted another brilliant experiment in Culver City, California. [GLASSF~1.TXT]

(72) The 100,000-square-foot bank headquarters *marks the passage from a promising but protracted architectural adolescence* to *adulthood.* [HIDDEN~1.TXT]

Nevertheless, the metaphors concerned with the abstract properties of built space are usually instantiated in language whose metaphorical quality often goes unnoticed, or which takes the form of epistemically non-modal, categorical assertions. Copular patterns are a case in point. As seen in Chapter 6, these usually involve copula *be*, and hence the resulting expressions appear more objective and factual than metaphors involving copulas like *resemble*, *look* or *suggest*. Moreover, the neutral appearance of the copular pattern with *be* is usually reinforced by the absence of hedges accompanying the metaphorical sources realized as subject complements:

(73) This building, like the wine it houses, *is a refined blend of science and art.* [3STEEL.TXT]

(74) The architect has succeeded in its goal of taking the curriculum out of the classroom and into the public spaces and the yard, suggesting that *architecture is the largest instructional tool.* [3MONTE~1.TXT]

(75) *The new courthouse is a statement of its own time and place.* [3FEDER~1.TXT]

In the absence of any other indication, we may presume that it is the reviewer who actually claims that a building *is* the entity used in the expression, but his/her commitment to the views conveyed in this way is mitigated or hidden behind the objective orientation of the A IS B pattern. In fact, somewhat paradoxically, the more abstract the focus of evaluation, the more categorical the statements articulating it (recall the passage where a building was categorically qualified as being "Mies in the microwave"). The following example (cited earlier) displays a similarly assertive tone:

(76) How does one restore a building that is at least as much about life as it is about form? The question is particularly thorny in the current postmodern era, in which *building imagery* (be it classical or modernist) *dominates our definition of architecture, and "functionalism"* (a term Aalto bandied about generously) *has virtually dropped from the contemporary lexicon.* Fortunately, David Fixler ... views *Aalto's dormitory as an architecture that "demands to be used, to acquire the patina of age – in effect, to generate history." The top-to-bottom renovation* of Baker House, which culminated in a rededication

ceremony last October, *has breathed new life into a still-vital organism rather than mothballing a hallowed artefact.* In the two-phase renovation ... Fixler's team took important steps to preserve and *extend the life of Baker House* for generations of undergraduates to come. [BACKTO~1.TXT] *This building, which steadfastly refused to pretend it was old but never wore its newness with pretension,* is now an historic monument and canonic work of modern architecture. [3BACKT~1.TXT]

Here, neither the comment on the state of the discipline nor the assessment of the building's qualities are modalized in any way. Rather, the reviewer's views on both topics are categorically conveyed by means of a language metaphor and personification. It should be noted that the use of personification is not an exclusive trait of building reviews, but is also typical of academic genres like the research paper, where expressions such as *this paper aims at/discusses/claims/focuses* are fairly common (Low 1999a).

As happens in other genres, the figurative expressions presenting buildings as the human agents of mental processes usually occur either at the beginning or at the end of reviews. Within the specific structure of the genre, the preferred sections are the Lead, Introduction (especially stretches describing the goals of the project), and Closing Evaluation. These textual loci determine the verbs involved in personification. For instance, whereas *aim*, *attempt* or *draw* usually appear in the Lead and Introduction of reviews, Closing Evaluations favour verbs like *succeed* or *demonstrate*. The verbs' different concern on goals and achievements is illustrated below, passages 77-79 exemplifying the former and passages 80 and 81 illustrating the latter:

(77) CUSTOMIZING THE READY-MADE. *A hillside retreat by Barton Myers draws* on multiple traditions of the post-war metal house. [CUSTOM.TXT]

(78) Such dwellings tend to be conservative in form, as well as modest in spatial and economic terms, but *a new sheltered housing block in Paris by Architecture Studio attempts* to challenge such stereotypes and enliven both the public and private realm. [PARIS.TXT]

(79) *The Centre aims* to bring together scientific knowledge, existing technology and future developments through a series of exhibition and cultural facilities. [SCIENC~1.TXT]

(80) *As Zapata's building demonstrates*, the city's love of novelty is thriving, as is its tradition of serious architectural invention. [3WINDOW.TXT]

(81) And in its position between stoplights at the beginning of Lincoln Road, *it* [the building] *succeeds* in its immediate charge as the lead building in a district that risks lapsing into the smugness of a chic, historical style. [3WOOD.TXT]

The role of expressions like these is threefold. First, there is a shift of focus from the architect towards his/her finished product. This is presented as if having a life of its own, which is consistent with the genre's concern with constructive detail. Secondly, in those cases where a review focuses on a single work by a given architect, personification may signal that assessment only applies to the particular artifact at issue irrespective of the success or failure of its designer's previous work – a use of personification particularly relevant in cases of negative appraisal. Last, but not least, personification helps conceal the presence of the reviewer and, with it, any authorial responsibility for the views sustained in the texts. At best, it is the architect metonymically lying behind the building who is responsible for failure or success.

In this respect, personification may be regarded as a useful device for covert authorial comment, that is, as an avoidance strategy in search of the appearance of objectivity in the specific context of the genre. However, although personification may help authors to apparently disengage from the claims sustained in the texts, it also signals text averral, even if in a negative, unmarked manner. Thus, the opinions articulated in reviews – and by the same token, in any other text – belong to the authors signing them, unless they explicitly attribute those opinions to a different source.

This apparent lack of commitment appears to be another strategy followed by reviewers in the genre for the sake of face and politeness, even if the procedure suggests an approach to both issues radically different from the one implicit in image metaphors. Thus, as happened with subjectivity and interpretative openness in image metaphors, the categorical, more objective flavor of the figurative language focusing on the abstract properties of buildings together with the somewhat ambiguous reading of the commentary thus conveyed underlie the pragmatic usefulness of metaphors of this type. Indeed, abstractly oriented figurative expressions may be seen as an *out* for reviewers in the genre. For one thing, since the traits usually commented upon in this way are less directly related to the visual informa-

tion in the texts, reviewers may not feel the need to be faithful to this graphic display, and choose to interpret the underlying (and hence unseen) rationale instead. Moreover, reviewers may always fend off criticism by alluding to the architect's and audience's misreading of their commentary. In other words, authors appear to shelter behind the categorical nature of the metaphorical language used for commenting upon the abstract, intellectual properties of buildings, strategically using this cover to convey their personal views on the building at issue.

However, the authorial presence is not always this covert in reviews. Together with using their own metaphors, they may also borrow and/or manipulate those of the architects whose buildings are under evaluation in reviews, as discussed in the following section.

3.3. Buttressing properly

Reviewers often quote architects when assessing their work, as happens in texts of other type where authors also often cite authoritative sources in the field to back up their own views and arguments. This authorial manipulation of citation is seen by Tadros (1993) as reflecting the texts' purpose and audience. In this sense, citation is often avoided in texts for pedagogical purposes, because it may weaken the authoritative status of authors in the eyes of non-expert readers. In contrast, it is a common strategy in texts written for peer audiences, where it is used as a mitigation device in order to coerce agreement and pre-empt disagreement with the views sustained by their authors.

In the specific context of architectural evaluative texts, reviewers appear to use citation to reinforce their own authority and hence their status as valid interpreters of design practices. Reviewers may accomplish this either by presenting their views as similar to the architects' or, rather, by contrasting their assessment with that of the architects. The former strategy is illustrated in the following passages:

(82) *"From one building to another, you're experiencing movement as part of a journey," claims the architect, who always deploys orientation devices – views, openings, corridors – to make the path of the constantly changing officescape self-guiding and cogent.* [2HIDDE~1.TXT]

(83) *TAPESTRY WEAVING. A* little archaeological *museum connects millennia and urban patterns* ancient and modern with grace and invention. [LEAD] Couvelas' basic design *emerges from the contrast between a modern grid ... and the ancient axes*, which are set at about 45 degrees to the contemporary ones. [MUSEUM~1.TXT] The masterstroke is the light and elegant bridge over the museum forecourt. ... *It is, says Couvelas, "a thread darning the hole caused by the excavation," and, in the darning, the pattern of the old weave of the city has been brought to the surface to take part in the modern tapestry.* [3MUSEU~1.TXT]

In these two passages the reviewers attribute the figurative expressions used for describing and evaluating buildings to the architects themselves; yet, they further develop such views in their own commentary, sanctioning and, at the same time, averring them. Example 83 is particularly revealing of how authors may manipulate citation for their own purposes. The text opens and closes with a textile metaphor explicitly ascribed to the architect; yet, this is not evident until Couvelas's words are cited at the very end of the text, which leaves the reviewer as the author of the metaphor for the most part of the review. Moreover, although the architect's statement is mostly concerned with a specific architectural element, it seems to have inspired the reviewer's assessment of the complex as a whole.

The following passage shows a more complex picture:

(84) [**Architect's comment**] This was a great opportunity to further explore my theories relating to the 'parasite' in architecture. ... *As a form*, [the roof] *bites into the thirties structure and clings to the ground inside the courtyard. Growing* from this position, it *surges* towards the north; *splintering the light* with glass, shade cloth panels and zincalume-clad wings. These materials combine the flesh-like fragility of cloth with the idea of exoskeleton in the shells and steel. ... *It is analogous to the growth of a large fig tree.* Unlike minimalist modernism, *it shows the struggle of structure through space.*
[**Reviewer's comment**] [1] Richard Goodwin calls his new work *a 'parasite'.* [2] *It's actually a roof which has a strong narrative.* [3] To understand *this narrative*, it is necessary to be aware of his work over the last 20 years: *an exploration of the ambiguous space at the conjunction of flesh and skeleton; of the internal as external.* ... [4] In this case, *this 'parasite' is at work under the building, in the bowels of the structure, emerging to engage the very insides of the build-*

> *ing with the unsuspecting passer-by.* [5] In some ways *his strategy is not dissimilar to the way Francis Bacon disgorged his parasitic human interiors into the public realm.* ... [6] *The roof is an organic response to the need for the entire building to mark the passing of time.* [7] It creates a dynamic tension. ... [8] *Richard Goodwin, metaphorically, has dumped the guts on the footpath.* ... [9] But what is the point of that? [10] This is the artist confronting us with a truism: this building is not what you see. [11] *It has beating, pumping services lying just below its skin.* [12] No longer can the neat and poised exterior of the Union Hotel conceal the truth; [13] *the underbelly of this building has been scratched and the parasite has emerged.* [14] *A parasite that exposes the real goings on of this place*: of the stench of fifty years of beer and cigarettes, of the tales told, of the jokes had, of the human passing. [15] *Scratch below the surface and the spirit of this building will disgorge.* [PARASITE.TXT][67]

The assessment above focuses on the metallic roof of a hotel in Sydney, a structure evaluated by both architect and reviewer through an organic metaphor, although each exploits it differently. Moreover, although the reviewer ends up borrowing the architect's organic description, he initially contradicts it by referring to the roof as a "narrative". In this sense, the reviewer's assessment appears to focus on notions of temporality – implicit in qualifying the roof as "having a strong narrative" (sentence 2), a metaphor reinforced by expressions in the passage like "mark the passing of time" (sentence 6). However, problems remain when one attempts to understand this "narrative" as responding to any organic need of the roof (as claimed by the reviewer), or when one attempts to understand the roof's contribution to the whole building through the reviewer's eyes.

For the adjective "organic" seems to prompt an interpretation of the roof as an organism susceptible to growing or developing in time (indeed, explicitly stated by the architect himself). However, since the reviewer describes the building as having certain *intellectual* needs, we may well understand "organic" as related to the building rather than to the roof. This would suggest a portrayal of the building as a personified entity capable of producing temporal accounts or narratives like the one illustrated in its roof. In this reading, it would be the building that is rendered in organic, human terms, whereas the roof would be some sort of *text* or *book* – which would be compatible with its anaphoric reference as "this narrative" (sentence 3).

The complexity of the reviewer's commentary is particularly noticeable when compared to the architect's, which not only is easier to picture and/or understand, but also appears to be more faithful to the visual representation of the building, which shows a metal structure looking like a huge spider grafted on top of a concrete building. Simply put, whereas the combination of visual and abstract information in the architect's metaphor is fairly accurate and intelligible (especially, the physical properties of his parasitic views on the roof under focus), the reviewer's explanation leaves images aside, and alludes to the abstract qualities of both roof and building. Together with being difficult to interpret, his assessment allows for a certain degree of freedom when compared to the architect's description. Nevertheless, although this reviewer appears to initially contradict the architect's views of the building as a "parasite", the ensuing commentary preserves and further extends Goodwin's organic description, to the extent that we find no other allusion to the language metaphor briefly sketched in the opening of the text.

Sometimes reviewers are less compliant with the architects they evaluate. This is shown in the following passage, in which averral and attribution are combined with personification in order to convey both the architect's and reviewer's somewhat opposed interpretation of the building at issue:

(85) CHURCH AND STATE. How does one build in a space like the Plaza Cardenal Belluga? asked Rafael Moneo when he began designing an annex to the city hall of Murcia ... What Moneo faced was in many ways a thoroughly European problem of adding new uses and structures to ancient environments – but with a few twists. In the case of the Plaza Cardenal Belluga, *the buildings surrounding the plaza were as strong in character as the irregular space they described* ... And the site of the new city hall annex would put it squarely opposite and on axis with the cathedral, creating an urbanistic tension that Americans might find troubling: *a direct confrontation of church and state.* In a country where the Catholic Church wielded so much power for so many centuries, the relationship is even more loaded. *Moneo claims to have created a building "content in its role as spectator, without seeking the status of protagonist held by the cathedral and the palace." The building may have been cast as a supporting player in the urban drama of its surroundings, but it has strong character and authority.* [CHURCH~1.TXT] Within a single flat plane, *Moneo's civic annex becomes as affected and self-conscious as the baroque cathedral – but never relinquishes its sense*

of order and rationality. [2CHURC~1.TXT] *Although Moneo wanted his addition to defer to its historic setting, it's not as reverent as he claims. The building makes a clever game of playing order against disorder to assert its own identity among its ornamented neighbors.* [3CHURC~1.TXT]

This review opens with a title that incorporates two institutions standing metonymically for the religious and civic buildings that *cohabitate* in the same urban space – the latter being the object of assessment in the review. The pivotal theme in this text is the aesthetic clash caused by Moneo's annex to the city hall in a baroque environment, a confrontation theatrically described as an "urban drama" after the architect's own metaphor.[68] Together with helping achieve a highly cohesive text, this theatrical metaphor creates a frame for the ensuing commentary, providing the means whereby the reviewer will contrast his own opinion with the views sustained by the architect. The metaphor is consistently used in such critical loci as the first evaluation in the text's Introduction, the highlighting move in the Description part, and the Closing Evaluation. Interestingly, the reviewer's views are never explicitly averred but, rather, appear hidden behind the personified view of the building suggested by the statement "The building makes a clever game of playing order against disorder to assert its own identity among its ornamented neighbors."

Reviewers also make abundant use of citation when using visual metaphors, either re-using the architect's words, or providing a contrasting image. Both strategies are illustrated below:

(86) Not yet outfitted with booths and automated information machines, *the glass-and-metal-clad structure, which has a profile midway between a surfboard and the Concorde*, seems *tethered* to the ground rather than supported by it. *"It's like a wing about to take flight,"* says Zapata. [2WOOD.TXT]

(87) *The architect cut a hole* measuring 80 feet wide by 100 feet high by 71 feet long from the building's center, *floated a concrete box inside it, and wove the building back through it ... Even to call the new structure a box, as Cloepfil does, is misleading.* The term conjures an image of four closed walls and a ceiling. *Allied Works' box is perforated, permeable, and exceptionally intricate.* [2CREAT~1.TXT]

In example 86 the aerodynamic images of the building are presented as encapsulating the reviewer's views on the building; yet, they actually an-

ticipate a similar image directly attributed to the architect. The effect achieved by this textual ordering is one of reinforcement of the reviewer's judgment: his views are introduced first, and later warranted by the architect's words. This may help reviewers to prevent any disagreement from the readers, and, of course, *buttress* their authority. Example 87 illustrates a different situation. Here the reviewer also anticipates the architect's reference to a spatial volume as a "box". However, although she uses that image in her commentary, she disagrees with the structural simplicity implied by the term.

Sometimes, the architect's and the reviewer's images are different, yet work hand in hand to provide different, yet complementary views and perspectives of the same artifact. This is the case of the following passage:

(88) Hecker's buildings are *richly layered compositions of metaphor and masculine form*, and the Duisburg Jewish Cultural Center (JCC) is no exception. *It is a jagged fan of five overscaled concrete fins webbed together by an entrance lobby, synagogue, and multipurpose hall … The architect likens the building to an open book, the five pages of which – the concrete fins* – represent significant events in the history of Duisburg's Jewish population. *One of the "pages"* for instance, points directly at the site where the town's former synagogue stood before it was destroyed by the Nazis. [OUTOFT~1.TXT] Along the park, *the pages of Hecker's book are heroically scaled*, but *as it butts up against the older houses, the building steps down around an intimate, irregular courtyard* that creates a quiet, domestically scaled entrance. … The synagogue proper, *a truncated star with a blocky ark* … is finished almost crudely. [2OUTOF~1.TXT] Architect Zvi Hecker *likens Jewish cultural Center's oversized concrete fins to open hand or pages of book.* [CPOUTO~1.TXT]

After stating the metaphorical quality of the architect's body of work, this reviewer describes the whole as a "jagged fan", and its different components as "fins webbed together", all the images being averred by default. Later, the same whole is compared to an "open book", and its elements to "pages", although this time the comparison is attributed to the architect (the link between both images being effected through the apposition "fins" referring to "pages"). In the ensuing text, the reviewer refers to the building's protruding volumes as "pages" and to the whole as a "book", retaining thus the architect's own image. Together with situating the description of this synagogue from various perspectives, the images in this text reinforce each

other, the reviewer thus skillfully using citation and his own images to convey his assessment. In this sense, the text may also illustrate the strategic use of cohesion and coherence achieved through metaphor for persuasive purposes in evaluative discourse

In sum, the contribution of citation to the pragmatics of text averral and attribution in building reviews can be seen then as falling into two patterns. Reviewers may re-use or further develop the architect's metaphors in their assessment, which is reinforced by citing the views of the latter in the texts. At the same time, reviewers may also contradict the architects' judgment, and provide a new figurative description. Both strategies, however, achieve the same effect of strengthening the reviewers' status as valid interpreters and judges of design practices in the genre. This is accomplished either by showing that the reviewers' views coincide with those of the architects involved or by showing that reviewers dare contradict the opinions of those responsible for the buildings at issue – just like an art or literary critic when assessing a given art or literary work who, sometimes, sees beyond the authors themselves.

4. Chapter summary

This chapter has described architects' use of figurative language in order to describe and evaluate their practice in building reviews. Metaphor has been seen as meeting their ideational, textual, and interpersonal needs according to the specific demands of the discourse context under analysis. In the first place, we have seen that architects' referential and attributive needs are met by metaphorically motivated jargon, and by the diverse grammatical forms in which conceptual and image metaphors can be instantiated. Thus, metaphorical expressions tend to cluster in certain textual stretches, some of which introduce and summarize a topic, and are thus closely related to the descriptive and evaluative purposes of the genre (e.g. titles and headlines both introduce and provide a first evaluation of the building under review). At the same time, metaphorical language also contributes to creating textual cohesion through a number of patterns and frames created as the texts unfold (e.g. repetition, diversification or extension), and may also help weave intra-textual links between the main text and the captions of the visuals provided with it.

The ways in which metaphorical language is used to accomplish the descriptive and evaluative goals of the genre may be summarized in Table 9:[69]

Table 9. Distribution and role of metaphorical language in reviews

Descriptive goal of genre			
Type of figurative expression	**Focus**	**Text position**	**Role**
Visual	Building's siting and/or relationship building-context	Introduction (moves 1, 2)	Description
	General appearance of building	Description (moves 1, 2, 3)	
	Change of perspective in description	Description (moves 2, 3)	Deixis
Conceptual	Performance and/or behavior of building after construction	Description (Move 3)	Description Explanation
Visual & conceptual	Architect's design and/or construction procedures	Description (moves 2, 3)	Description Explanation
	Refer and/or further describe built structures displayed in images	Captions	Reference and/or explicitation
Evaluative goal of genre			
Visual	Aesthetic constraints, usu. context- related problems	Introduction (Move 1)	Evaluation (aesthetically focused)
	Highlighting specific (aesthetic) trait of building	Description (Move 4)	
	First evaluation of building	Title, Lead, Introduction (Move 3)	
	Final evaluation of building	Closing Evaluation	

Table 9. Distribution and role of metaphorical language in reviews (cont.)

Evaluative goal of genre			
Type of figurative expression	**Focus**	**Text position**	**Role**
Conceptual	Building constraints, usually related to state-of-the-art	Introduction (Move 1)	Evaluation (based on building's function and/or behavior)
	Highlighting specific trait of building (functional/behavioral)	Introduction (Move 1) Description (Move 4)	
	First evaluation of building	Title, Lead, Introduction (Move 3)	
	Final evaluation of building	Closing Evaluation	
	Evaluation of architect's skills (usually relating them to current or previous trends within discipline)	Lead, Introduction (Move 3), Closing Evaluation	

We have also seen that some of the ways in which metaphors are instantiated in reviews appear to be determined by the attempt of reviewers to adopt an objective, neutral stance in their assessment of design practices. However, if we bear in mind that the greater the objectivity, the greater the author's implicit commitment to or assent with the views metaphorically portrayed, the instantiations may be seen as fulfilling a hedging function in diverse ways in response to various related concerns. The way reviewers use metaphorical language signals the epistemic warrant and authorial commitment to the knowledge thus conveyed, which, in turn, responds to their need to preserve their reliability and authority in the genre. In this respect, figurative language may be seen as strategically used by reviewers for the sake of politeness and face-saving, that is, to minimize the risk of being contradicted. Especially interesting in this respect are all the cases explicitly attributed to architects and further reworked by reviewers who, in this regard, use the former's views to underpin their own commentary and, in the end, reinforce their status as critics within the community. The con-

tribution of metaphor to handling the relationship among the participants in the building review genre may be summarized as follows:

Table 10. Metaphorical language as a face and politeness strategy

Strategy + type of metaphor	**Focus**	**Role**
Gradual provision of detail. Image metaphor.	Delay detail + slowly disclose real concern of description/evaluation to readers.	Bolster reviewer self-image (positive face).
Play up subjectiveness of figurative expressions. Image metaphor.	Signal the subjective (reviewer's) bias of description/evaluation. Widen interpretive scope of commentary.	Save reviewer's and audience's face.
Hedged metaphorical language. Usually, image metaphor.	Mitigate categorical & factual nature of aesthetically biased commentary. Help readers interpret commentary. Temper reviewer's degree of commitment to truth-value of commentary.	Negotiate views sustained in text.
Non-hedged figurative language, copular metaphor with *be*. Usually, conceptual metaphor.	Achieve assertive, objective, neutral tone.	Divert attention from reviewer + fend off criticism. Save reviewer's and audience's face.
Personification	Shift focus from architect to building. Covert authorial commentary. Disengage from the claims sustained in the texts.	Divert attention from reviewer + fend off criticism. Save reviewer's and audience's face.
Manipulation of reviewed architect's metaphor(s). Image & conceptual metaphor.	Use and/or elaborate architect's metaphor = alignment with architect. Challenge architect's metaphor = positioning above architect.	Reinforce reviewer's authority & status as an evaluator.

In short, both image-based and abstractly driven figurative expressions have been regarded as fulfilling a hedging role within the genre, accomplished in two different ways. On the one hand, image metaphor realizations signal the reviewer's point of view (whether this is concerned with spatial perspective or aesthetic preference) and, therefore, feel more subjective. This may be explained as responding to the visual weight in both the discipline and the genre: since architects may read and interpret visual data without the reviewers' mediation, their commentary needs to be mitigated rather than categorically presented if it wants to avoid being dismissed as inappropriate when compared to the information provided graphically. In contrast, less graphic metaphorical language exhibits a more amodal and apparently objective quality fully compliant with the abstract information it conveys, which is enhanced by the customary absence of authorial first-person pronouns in the texts. Audiences may also strongly disagree with such commentary, yet disagreement cannot be validated by means of images provided in the texts and, therefore, remains a personal, individual reaction to the arguments developed in the texts.

Reviewers' use of metaphors of different sorts in the genre, then, suggests that while they appear to have no problems in negotiating the visual, their interpretation of the rationale underlying the physical, visual properties of built space is a different matter. The ways in which this negotiation is articulated point to the twofold dimension of architecture as a craft and art, that is, as driven by both aesthetic and intellectual concerns. Moreover, it draws attention to the critical weight of the former in the discipline, and to the potentially controversial nature of the assessment pivoting on the aesthetic dimension of architectural design. However, although this controversial (i.e. face-threatening) aspect may lead us to expect the reviewers to detach themselves from those views, the analysis of the reviews in the corpus appears to contradict these expectations: visual metaphors often reveal a fully committed author, telling his/her readers that the judgment thus expressed is his/her own and nobody else's. A similar point is made by Simpson (1990) after examining the use of modality in a literary-critical text. He finds that although the potentially controversial nature of certain information might have warranted the use of a more tentative modality by its author, this is not the case. Instead, "the amount of detachment is in *inverse* proportion to the weightiness or seriousness of the information presented" Simpson (1990: 89), finding its persuasive power in the over-modification of non-problematic propositions. Of course, this does not mean that the assessment conveyed through categorical, non-visual meta-

phors – in principle, suggesting a detached, neutral author – is irrelevant in the genre. However, all in all reviewers in architectural texts seem, indeed, more ready to negotiate seeing than thinking, thus confirming Siza's words quoted earlier that "in order to appreciate architecture, before thinking, we must look; we cannot think properly unless we also look properly."

Chapter 8
Concluding remarks

As postulated by cognitive scholars, metaphor plays a critical heuristic role in our understanding of new, abstract concepts, in our approaching already-known ones from a new perspective, and, of course, in the verbalization of such experiences. Exploring metaphor's contribution to furnishing English-speaking architects with a system for thinking and discussing built space has been one of the main concerns of this book. As regards the first aspect, the description of how metaphors are instantiated in architectural texts has revealed a community thinking both in images and concepts, underlining the difficulties of clearly distinguishing between the knowledge informing different kinds of metaphors. As to the discourse aspect, although metaphor may be – and, indeed, often is – strategically exploited in innovative ways in architectural discourse, many of the schemas underlying the figurative language used by architects are, in fact, part and parcel of their disciplinary affiliation, suggesting a whole community re-using old, inherited metaphors time after time, while adapting them as new needs and concerns arise.

The difficult, elusive nature of space, and the complexities involved in its handling for human use lie at the heart of architects' reliance throughout history on metaphors of diverse sorts. As seen in chapters 2 and 5, this may be attested by the long lineage of some of the most recurrent metaphors in contemporary architectural communication, like those drawing upon the natural sciences, linguistic description, spatial mechanics, and human beings themselves. These inherited views co-exist with more ad-hoc, often imagistic, metaphors, which play an important role at different stages of building design, and are often displayed both in verbal and graphic form (as shown by the visual data in this book). Together with being part of architects' theoretical legacy, metaphor is also a critical tool in building design.

Architectural texts yield both clear cases of metaphors concerned with the abstract properties of buildings, and clear cases of metaphors informed by visual knowledge. Nevertheless, as discussed in Chapter 4, numerous figurative occurrences appear to be less easy to class as conceptual or image metaphors. For, although both may be crucial for discussing metaphor in architectural communication, the clear-cut distinction between visual and

conceptual knowledge informing each type is particularly troublesome when examining the figurative data in architectural texts. These yield many cases of figurative instantiations apparently motivated by conceptual metaphor, yet often conveying visual information as well. In this sense, another aim of this book has been to draw attention to the impact that the visual concerns of architects have on the metaphors articulating their thought and language, as illustrated by the large amount of figurative expressions and architectural texts informed by *both* abstract and visual knowledge. In turn, this may well suggest that the differences established between conceptual and image metaphors may be less dramatic than customarily thought. Indeed, qualifying architects as having a *thinking eye* suggests that visual and abstract knowledge are closely related in the discipline – and, therefore, in the language used to articulate architectural thinking.

Indeed, as described in Chapter 6, both disciplinary jargon and some of the most prototypical linguistic patterns of architectural discourse point to architects' visual thinking. Thus, buildings and parts of them are recurrently referred to as *pods*, *wedges*, *lozenges*, or *boxes*; nominal compounds provide the means to differentiate and classify construction elements according to their external appearance (e.g. types of vault, rib, roof, or window); and non-possessive genitive patterns (e.g. *a sliver of a window*) cater both for architects' referential and attributive needs. Nevertheless, it is verbal and adjectival patterns that best point to the entrenchment and productivity of metaphors carrying visual information, as illustrated by the copular patterns realizing the metaphors MOTION IS FORM and FORM IS MOTION, and adjectives resulting from derivation and suffixation processes like Noun-shaped and Noun-like adjectives.

Together with exploring what aspects of architects' worldview are construed in figurative ways, this book has also aimed to reflect upon the discourse staging of those metaphors; that is, how and why architects use metaphor. The context chosen for this endeavor has been the genre of building reviews. This is one of the prototypical contexts where the complex array of issues involved both in architects' work and discourse may be best appreciated, and probably the best place where their *ingenio* and *verborum* facets actually meet. Metaphorical language has been described as meeting the ideational, textual, and interpersonal needs of architects or, more specifically, reviewers, according to the specific demands of the discourse context under analysis. We have seen that their referential and attributive needs are variously covered by the diverse grammatical patterns in which metaphors can be instantiated. These also contribute to creating tex-

tual cohesion through a number of figurative clusters and frames created as the texts unfold (e.g. repetition, diversification and extension patterns), and weave intra-textual relationships between the main text and the captions of the visuals provided with it.

At the same time, figurative expressions have been discussed as conforming part of the textual devices deictically pointing to the authorial positioning in the texts, at times signaling the spatial perspective from which buildings are described, and other times fulfilling a hedging function as specified by the kind of knowledge involved in them. For instance, abstractly driven metaphorical language and, particularly, personification cases are used by reviewers to apparently disengage from the claims sustained in the texts, to create the illusion of objectivity in a nevertheless intrinsically subjective genre, and to shift the focus towards the reviewed buildings rather than to their own selves. In contrast, visually informed language reveals the reviewer's presence to his/her audience more explicitly, its subjective quality also working at the service of face saving and politeness in compliance with the genre's evaluative thrust and aesthetic bias. This strategic use of metaphor in spatial assessment does not necessarily mean that reviewers are fully aware of the impact of their use of language, metaphorical or otherwise, in the genre; yet, the varying degree of awareness does not diminish that very impact either. The reviewers' recurrent use of personification and other instantiations of figurative schemas, however strategic it may ultimately be, may also illustrate disciplinary acculturation through genre, that is, through discourse interaction. Indeed, a good amount of the texts' persuasive potential may also rest upon reviewers' and audience's "responding 'naturally' (i.e., without conscious reflection) to the linguistic demands of the situation" (Markus and Cameron 2002: 175).

In other words, the figurative data in professional text corpora like the one here described bring to light a shared and culturally specific ontology built upon metaphorical sets largely acquired and learnt to manage through socialization and repeated use. Metaphor is, then, both a conceptual and a socialization tool, and one that is partly acquired and effectively put to work through discourse interaction. Hence, the need to incorporate the cognitive, linguistic, and cultural aspects of figurative phenomena in metaphor research aimed at explaining why and how people communicate through metaphor – the latter two inextricably linked to exploring which metaphors underlie a particular way of thinking the world. This suggests that it is necessary to combine both a cognitive and a discourse perspective on metaphor

if reliable insights are to be gained. Indeed, the valuable taxonomic work carried out by cognitive scholars may be enriched by the evidence offered by a discourse approach and, more specifically, a genre approach. Nevertheless, the basic cognitive premise on the relationship between thought and language that has informed the analysis carried out has, itself, made these insights possible. In this sense, the bottom-up approach of cognitive linguistics may also enrich the top-down procedures of discourse and genre analysis, to yield richer views of the shared cultural and cognitive schemas of particular discourse communities.

Notes

1. This is the literal translation of an expression that reads as follows in Spanish: 'Lo peor va a ser quitarle la tripa a esta pared.' A more idiomatic rendering would be "the wall bellies out", which may be seen as instantiating a metaphor that combines motion and anatomical detail (cf. chapters 5 and 6).
2. Translated by S.H. Butcher. Online document. Accessed at http://classics.mit.edu/Aristotle/poetics.html
3. See also the discussion in Ritchie (2003), Vervaeke and Kennedy (2004), and Ritchie (2004) in this respect.
4. Genre is, nevertheless, one of the most debated concepts in discourse analysis. The discussion hinges upon the distinction between *genre*, *text type* and *register*, three often-overlapping terms used to refer to the same textual artifact. Lee (2001) provides a good overview of the different positions on these concepts.
5. *Isometric* perspectives involve the representation of objects in the direction of the diagonal of a cube, whereas *axonometric* projections provide three-axial perspectives of built works.
6. A good overview of the different approaches followed in visual analysis is provided in van Leeuwen and Jewitt (2001), where the interested reader will also find extensive references to work done in the field. The pictorial instantiation of metaphor is explored in Forceville (1996), where an analytical framework suitable for exploring it in advertising discourse is also discussed.
7. A look at the archives of *Architectural Record* reveals the rapid evolution of the genre into its current highly pictorial form. In fact, technical development may be seen as one of the factors involved in the eventual transformation of the genre into an exclusively graphic affair, as also illustrated by the reviews in the online version of this architectural magazine, which basically consist of visual representations that may be variously manipulated depending on the sophistication of the user's software. [http://archrecord.construction.com]
8. By courtesy of architect Peter Hübner.
9. This is illustrated by early texts from *Architectural Record*. This magazine was first published in 1891, and devoted two sections to describing and evaluating what are referred to as "Architectural Aberrations" and "Architectural Appreciations" – both illustrating early instances of the review genre.
10. Although this is also known as the contemporary cognitive theory of metaphor, the term Experientialism nicely captures the sort of embodied cognition postulated by metaphor scholars after the work of Lakoff (the main tenets of which are fully expounded in Lakoff [1987a]). Throughout this book, the

terms *experiential* and *Lakoffian* will be used indistinctively to refer to this trend of metaphor research.

11. From Poetics, trans. Butcher. Online document. Accessed at [http://classics.mit.edu/Aristotle/poetics.1.1.html]
12. The adjective *cognitive* qualifying these approaches deserves further notice since it may give rise to misunderstanding, even if it captures the weight given to the conceptual dimension of metaphor in the three trends of research. For, irrespective of their differences and terminological quibbles, all of them share the basic assumption that metaphor is a conceptual device through which we conceptualize our experience in the world, expressing it through diverse media (e.g. language, symbols, or gesture among others). It is important to bear this in mind for it has been the tendency of experientialist scholars to regard themselves as the representatives of *the* cognitive linguistic theory of metaphor, an assumption that implicitly rules out other approaches which might, therefore, be regarded as spurious or less cognitive.
13. In agreement with conventional notation in cognitive linguistics, the metaphors (i.e., conceptual mappings) under discussion will appear in SMALL CAPITALS, whereas the figurative language instantiating them appears "between inverted commas" in the discussion, and *in italics* within the passages where they occur in the corpus under analysis. Finally, notice that the examples are also labelled according to their locus of occurrence within the rhetorical structure of the review. Thus, the tags between square brackets tell us whether the figurative expression occurs within the Title, Lead and Introduction part as in [RUSTIC~1.TXT], belongs to the Description part [2RUSTI~1.TXT], to the Closing Evaluation [3RUSTI~1.TXT], or to the captions of the visuals accompanying the main text [CPRUST~1.TXT].
14. These are also referred to as *spatial-relations* concepts in Lakoff and Johnson (1999).
15. Another important cognitive mechanism is metonymy. For the sake of simplicity, this brief overview of cognitive approaches will focus on metaphor. The relationship of metonymy with some metaphors found in the architectural corpus will be addressed when needed for discussing the examples where these are instantiated.
16. For a revised version of this principle, referred to as the *Extended Invariance Principle*, see Ruiz de Mendoza (1998).
17. Further explanation of how metaphors are organized in our conceptual system concern two metaphorical hierarchies. The first of these is THE GREAT CHAIN OF BEING (Lakoff and Turner 1989). The second is the EVENT STRUCTURE system (Lakoff 1990, 1993; Kövecses 2000) whereby states and events are metaphorically conceptualized in terms of concepts such as location, force, and motion (e.g. general metaphors such as CHANGES ARE MOVEMENTS, PROGRESS IS MOTION FORWARD or MEANS ARE PATHS).

18. Some cognitive scholars regard metaphoric and metonymic mappings as conceptual operations or *processes* (thus highlighting their dynamic nature), and describe blends as *products*, that is, as the outcome of previous cognitive activity or operations (integration, correlation, metaphor and the like) and, hence, not dynamic in Fauconnier and Turner's sense. This is the case of the Combined Input Hypothesis postulated in Ruiz de Mendoza and Peña (2002) and Ruiz de Mendoza and Santibañez (2003), which preserves some of the most relevant characteristics of Turner and Fauconnier's account, yet departs from it in several respects.
19. However, as will be seen later in this book, some metaphors have the potential of working both ways, that is, of being bi-directional (for instance, some of the metaphors belonging to what Grady [1999] refers to as *resemblance motivated metaphors*).
20. Likewise, in Koller (2004) the author shows how metaphors of war, sports, and evolutionary struggle are used to construct business as a masculinized social domain.
21. All the literary examples belong to Lakoff and Turner's (1989) own discussion.
22. The rhetorical potential of proverbs is also discussed by Whaley (1993), who combines an interpersonal and textual focus.
23. This virtual quality may, nevertheless, be slowly changing in reviews distributed by electronic means. Thus, online book reviews often display a number of links taking readers to actual chapters or long extracts of those. The possibilities afforded by the new technology and medium (e.g. hypertext technology and Internet or any other such computer-mediated web) may be seen as affecting the access constraints of readers with the entities assessed in reviews (Caballero, in press).
24. By courtesy of architect: Zvi Hecker.
25. See also Charteris-Black (2004) in this respect.
26. The building review is the only review genre describing and evaluating an artifact irrespective of its actual existence. Indeed, many reviews in the magazines consulted – as well as a few in the corpus under analysis – rely exclusively upon the plans and drawings of a future building. This might also prove the reliance of the discipline on the visual mode, as the excellence of a given project may be well discerned through its plans and models.
27. This research trend has always kept the distinction between *conceptual metaphor* and *linguistic metaphor*, yet their use of *metaphor* to refer to the former may lead to confusion. Some scholars have proposed to keep the distinction and the corresponding labels in order to avoid confusion as to what is discussed under the name *metaphor* (Steen 1994, 1999a; Cameron 1999a).
28. Nevertheless, although the conceptual dimension of metaphor has been paramount in this trend of research, it should also be noted here the growing body

of work concerned with grammatical issues, as illustrated in Langacker (1987, 1990), Dirven (1995), Dirven and Verspoor (1998), Panther and Radden (1999), and Panther and Thornburg (2000) among others.

29. Recent attempts to devise a reliable method for identifying metaphors in texts may be found in Steen (1999b, 2001, 2002).
30. Concerning the use of italics to highlight figurative language in the text samples, only the terms illustrating the topics addressed in each section are italicized, rather than all the metaphorical words in the passage. Yet, as we move on towards describing how metaphors cluster in text or conform metaphorical patterns, more figurative terms will appear italicized.
31. The problems in metaphor construal are addressed by Forceville (1996: 29-31) who warns against the risks of disregarding the context of metaphorical expressions when attempting to construct their underlying mappings since these may change depending on the linguistic term anchoring the interpretation process. See also Goatly's (1997: 86-89) discussion on what he calls *vehicle construction process*, triggered by incongruous colligation and especially related to metaphorically used verbs. He illustrates his point with the expression "gills kneading quietly", where "kneading" evokes a typical action performed by hands and, thus, indirectly equates "gills" with these.
32. Most examples are drawn from Lakoff and Johnson (1980).
33. This point was suggested by one of my informants, who pointed out that such expressions often brought to mind the prototypical texture of sackcloth.
34. This view of rhetorical structure as shaped by audience and communicative goals is, nevertheless, not the sole achievement of genre scholars. Indeed, it is also one of the basic postulates of text grammarians. Thus, for instance, the starting assumption in de Beaugrande and Dressler (1981: 17) is that "structures are always the outcome of intentional operations."
35. Interestingly enough, when helping two of my informants to write their own reviews of a recent restoration work, I noticed that some of the metaphorical expressions they used were similar to those of their English-speaking colleagues, and that they appeared at the same structural loci in the reviews written in Spanish. This not only suggested that communicative purposes are common to architects irrespective of their mother tongue, but also that both their writing and metaphorical competence result from a long and, to a large extent, unconscious process of disciplinary acculturation.
36. The collection of papers in Hunston and Thompson (2000) provides a good overview of work on all aspects related to evaluation in discourse. The introductory chapter provides a useful survey on the different definitions of and positions on the subject.
37. These broadly concern image metaphors. The diversity of sources involved in these makes it difficult to sort many such metaphors into distinct classes – on-

ly the ones drawing clearly upon a particular domain, such as biology or textiles have been included in the corresponding group.

38. Synaesthetic metaphor is subsumed in Brooke-Rose's (1958) *sensuous metaphor* (comprising metaphors whereby A IS B by virtue of similarity of appearance, sound, smell and the like), as well as in what Friedrich (1991) calls *image tropes*, also comprising diverse kinds of perceptual images or metaphors.
39. The passage may as well be explained as a case of a blend; that is, as resulting from the selection of conceptual material from several source domains or spaces and the subsequent projection of portions of this material into a blended space. Thus, the four input spaces involved would consist of our knowledge of glass, clothing, skin and membranes. A generic space would include elements common to these spaces or source domains, although these need not be shared by all of them. For instance, although all four may be seen as providing any given entity with some kind of screen or protective layer (often external), skin and membrane share the properties of being thin, pliable and soft versus the rigid, brittle quality of glass. In turn, clothing may be either organic, just like skin or organic membranes, or inorganic like glass –yet, as pliable as the former two entities. The generic space would, thus, incorporate several information bits from the four input domains even if these bits are not common to all of them. Some of this information would then be mapped into the fourth space or blend which, in our particular case, presents a given building as covered (i.e., "clad" as conventionally expressed in architectural discourse) by an external outer layer or "skin" (again, a conventional architectural jargon term) made of glass, yet so thin and glittering that it may be further qualified as a "shimmering membrane".
40. Figurative expressions like these are metonymically motivated. The metonymy would be AGENT FOR PRODUCT or, more specifically, ARCHITECT FOR STYLE whereby the name of a given architect stands for his/her particular building style, therefore playing a twofold role: referential with regard to that style, and predicative with regard to the entities qualified through it. Nevertheless, a detailed discussion of the relationship between metaphor and metonymy involves moving on a level of technical specificity that falls beyond the scope of this book. For those interested in the subject, see the papers in Panther and Radden (1999) and in Barcelona (2000).
41. The framework known as the Cardiff Grammar (in fact, an offset of Systemic Functional Linguistics) also explains the motion constructions here discussed as instantiating relational predication patterns. However, unlike Halliday, Fawcett (1980, 1987) regards verbs like *walk*, *drive*, *fly* or *run* as realizing relational rather than material processes irrespective of their use to convey physical actions in other contexts.

42. Fauconnier (1997) also provides a non-metaphorical explanation of fictive motion patterns which, although drawing insights from Langacker (1987) and Talmy (1996), pivots on the notion of blending.
43. For a discussion on the hierarchical relationships among image schemas see Cienki (1997), Clausner and Croft (1999), and Peña (2002).
44. In fact, the reverse version of the metaphor SOCIETY IS A BUILDING (i.e., A BUILDING IS A SOCIETY) seems to have been at work in certain trends during the Renaissance and in the nineteenth century, where buildings were often designed or structured in order to match social relationships and order (for a thorough discussion, see Forty 2000).
45. See also Quirk et al (1991: 1285) in this respect.
46. The resemblance basis underlying this type of compound is also reflected in well-known typologies such as those in Adams (1973) and Warren (1978).
47. Ryder (personal communication) illustrates *quasi-anaphoric* compounds with the following example: "Waitress: I can't believe what jerks those people are at table 5! The guy who ordered the tuna fish sandwich is complaining that it doesn't have enough mayo, the guy who got the chili says it's too spicy, and the bratty kid said he wanted a peanut butter sandwich and then when it arrived he changed his mind. And now *the tuna fish guy* says his hot-fudge sundae was melted when it arrived!"
48. Followers of Blending theory have also dealt with grammatical patterns such as nominal compounds, explaining them as often reflecting conceptual blends – see, for instance, the discussion of terms like "boathouse" and "jail-bait" in Turner and Fauconnier (1995). Of course, instead of explaining a compound like "dormitory pod" within the approach to metaphor followed in this book, it might have been explained as recruiting information from two different spaces (space one corresponding to our concept of dormitories and space two corresponding to our concept of pods), effecting a structural match in the third space called generic space, and then blending the information from all these spaces in the final expression. In my view, however, this explanation does not cover the intricacies derived from comparing conventional compounds in architectural discourse such as *butterfly roof* or *strip window* to novel expressions such as *retail strip*, *dormitory pod* or *supermarket box* (i.e., how different knowledge blending may direct the users of the expressions to produce them in the first place, and the readers/listeners to comprehend them without the necessary disciplinary knowledge, as described here).
49. Levin (1993) discusses verbs like *lay*, *lean*, *perch*, *rest*, *sit* or *stand* under the labels of "verbs of putting in a spatial configuration" (Levin 1993: 112-113) since they are mainly used to "specify the particular spatial configuration that the placed entity ends up in with respect to the location" (Levin 1993: 112), and the related set of "verbs of spatial configuration" used likewise (e.g. verbs like *crouch*, *lie*, *loom*, *nestle*, *perch*, *rest*, *sit*, *slope* or *tilt*).

50. The occurrence of motion verbs in spatial descriptions in the progressive is also discussed in Langacker (1987: 254-258), where the choice of progressive or non-progressive aspect is explained as subservient to the more or less partial perceptual access of the speaker to the scene thus described. Thus, whereas saying that a road "winds through the mountains" implies a holistic overview of a spatial configuration (i.e., as when consulting a map), saying that it "is winding through the mountain" points to someone describing his/her ongoing experience when travelling along it. In contrast, the use of non-progressive aspect in architectural description does not refer to the actual experience of people when moving within or outside buildings, but their reaction to what such buildings look like. Both progressive and non-progressive are used to afford an overview of the entire scene, the choice of one or the other being largely dependent on textual – rather than experiential or perceptual – considerations.
51. Although verbs like *embrace*, *hug* or *address* are followed by a direct object in other contexts, given the particularities of the constructions in architectural discourse and their concern with – implicit – motion rather than any other action, the structure of patterns incorporating such verbs may well be schematized in the same way as those incorporating motion verbs proper.
52. The instantiations of MOTION IS FORM further suggest the metonymic motivation of the constructions, particularly if we take into account that of all the traits of *scissors*, *fans* or *corbels* only their shapes are involved in the expressions – whether these concern the general contour of such entities or the surface covered by them when seen in a horizontal plane. The prototypical shape of a fan would thus stand for the whole entity in an expression like *the building fans out*, rather than other characteristics of fans – functional or otherwise.
53. According to Forty (2000) modern architectural language pivoted on five key words: *space*, *form*, *design*, *structure*, and *order*. The use of such vague terms somehow illustrated architects' rejection of a number of inherited metaphors – usually drawn from the domains of language and biology and profusely incorporated in the previous critical discourse. Their adoption was, thus, a way to foreground the new modern concern with what was strictly architectural and conceptual while highlighting the limitations of language to describe both the essence and experience of space.
54. "Pelt-like" might also be regarded as an example of synaesthetic metaphor since it combines visual and tactile information.
55. Suffixes such as *-ic*, *-oid*, *-y* are discussed as intrinsically subjective and, therefore, evaluative in Hunston and Sinclair (2000).
56. The economical nature of such patterns in English is more evident when compared to languages like Spanish, which, as has been seen, makes a similar use of image-metaphorical verbs yet needs to complement such verbal patterns by means of adverbials.

57. A similar point is made in Fauconnier (1997) and Fauconnier and Turner (1994), where hedges are seen as *space builders*, that is, as signalling the existence of a mental space.
58. Concerning this example, one of my informants, although not fluent in English, not only understood what the reviewer referred to, but actually drew what the expression meant, thus illustrating the interdependence between the linguistic and the visual, plus the role of cultural and/or disciplinary knowledge in metaphor understanding.
59. The innovation in this last adjective is the prefix *sub-* rather than the well-known (at least for any architect) stylistic abstraction encapsulated in "Corbusian."
60. This particular function of metaphor is also discussed in Lerman (1984), Low (1988), and Moon (1998).
61. This is my own translation of a statement that reads as follows in Spanish: "Para apreciar la arquitectura, antes que pensar hay que mirar; si no se mira bien, no se piensa bien. Pero es difícil, porque hay muchas tendencias, muchas formas de expresión distintas."
62. *Parti* refers to the structure or general organization of a building. The term is borrowed from French, and may also be found spelled as *party*.
63. Giovanni Battista Piranesi (Italy, 1720-1778) was an eighteenth-century architect and engraver famous for his visionary compositions involving a combination of monumental structures and awesome ruins.
64. Percentages are estimated as follows: the total number (100%) of hedged occurrences yielded 146 instances. All the occurrences were estimated according to this total amount.
65. For instance, verbs like *swoop*, *plunge* or *nosedive* would emphasize the downwards direction of a vertical movement.
66. Hedging is approached here from a broad, functional perspective, that is, one in which any linguistic device is regarded as potentially hedgy according to contextual and co-textual factors (Stubbs 1986; Prince, Frader, and Bosk 1982; Markkanen and Schröder 1997; Hyland 1998).
67. I have numbered the sentences conveying the reviewer's comments for the sake of clarity in the discussion.
68. As a matter of fact, the expression "urban drama" may also allude to the controversy created by the civic building – both during and after its erection – among the inhabitants of Murcia.
69. The use of *visual* and *conceptual* in the table is a question of degree, and has been used here for the sake of simplicity rather than as an indication of a clear-cut distinction between types of metaphor. The same applies for the terms *descriptive* and *evaluative* in many cases.

References

Ackerman, John, and Scott Oates

1996 Image, text, and power in architectural design and workplace writing. In *Nonacademic Writing: Social Theory and Technology*. Ann Hill Duin, and Craig J. Hansen (eds.), 81-121. Mahwah, N.J.: Lawrence Erlbaum Associates.

Adam, Jean-Michel

1992 *Les Textes: Types et Prototypes*. Paris: Nathan.

Adams, Valerie

1973 *An Introduction to Modern English Word Formation*. London: Longman.

Aitchison, Jean

2003 *Words in the Mind. An Introduction to the Mental Lexicon*. Oxford: Blackwell. Original edition, 1987.

Allbritton, David W.

1995 When metaphors function as schemas: Some cognitive effects of conceptual metaphors. *Metaphor and Symbolic Activity*, 10 (1): 33-46.

Arnheim, Rudolf

1969 *Visual Thinking*. Berkeley/Los Angeles: University of California Press.

Barcelona, Antonio

2000 On the plausibility of claiming a metonymic motivation for conceptual metaphor. In *Metonymy and Metaphor at the Crossroads*. Antonio Barcelona (ed.), 31-58. Berlin: Mouton de Gruyter.

Bartlett, Frederick Charles

1932 *Remembering*. Cambridge: Cambridge University Press.

Beardsley, Monroe

1962 The metaphorical twist. *Philosophy and Phenomenological Research*, 22: 293-307.

de Beaugrande, Robert-Alain, and Wolfgang Dressler

1981 *Introduction to Text Linguistics*. London: Longman.

Bell, Adam

1996 *The Language of News Media*. Oxford: Blackwell.

Berkenkotter, Carol, and Thomas Huckin

1995 *Genre Knowledge in Disciplinary Communication*. Hove: Lawrence Erlbaum Associates.

Bhatia, Vijay

1993 *Analysing Genre: Language Use in Professional Settings*. Harlow: Longman.

Bickerton, Derek
1969 Prolegomena to a linguistic theory of metaphor. *Foundations of Language*, 5: 34-52.

Black, Max
1962 Metaphor. In *Models and Metaphors*, Max Black (ed.), 25-47. Ithaca, NY: Cornell University Press.
1979 More about metaphor. In *Metaphor and Thought*, Andrew Ortony (ed.), 19-45. Cambridge: Cambridge University Press.

Boers, Frank
1999 When a bodily source domain becomes prominent: The joy of counting metaphors in the socio-economic domain. In *Metaphor in Cognitive Linguistics*, Raymond W. Gibbs, and Gerard J. Steen (eds.), 47-56. Amsterdam/Philadelphia: John Benjamins.
2000 Enhancing metaphoric awareness in specialised reading. *English for Specific Purposes* 19: 137-147.

Boers, Frank, and Murielle Demecheleer
1997 A few metaphorical models in (Western) economic discourse. In *Discourse and Perspective in Cognitive Linguistics*, Wolf-Andres Liebert, Gisela Redeker, and Linda Waugh (eds.), 115-129. Amsterdam/Philadelphia: John Benjamins.

Boyd, Richard
1979 Metaphor and theory change: What is 'metaphor' a metaphor for? In *Metaphor and Thought*, Andrew Ortony (ed.), 356-408. Cambridge: Cambridge University Press.

Brooke-Rose, Christine
1958 *A Grammar of Metaphor*. London: Secker & Warburg.

Brown, Penelope, and Stephen C. Levinson
1987 *Politeness: Some Universals in Language Usage*. 2d ed. Cambridge: Cambridge University Press.

Caballero, Rosario
2003 Metaphor and genre: The presence and role of metaphor in the building review. *Applied Linguistics* 24 (2): 145-167.
in press The influence of hypertext on genre: Exploring online book reviews. In *The Writer's Craft, the Culture's Technology*, Michael Toolan, and Rosa Caldas-Coulthard (eds.). Amsterdam: Rodopi.

Cameron, Lynne
1999a Operationalising 'metaphor' for applied linguistic research. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 3-28. Cambridge: Cambridge University Press.
1999b Identifying and describing metaphor in spoken discourse data. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 105-132. Cambridge: Cambridge University Press.
2003 *Metaphor in Educational Discourse*. London/New York: Continuum Press.

Cameron, Lynne, and Graham Low (eds.)
1999 *Researching and Applying Metaphor*. Cambridge: Cambridge University Press.

Casakin, Hernan, and Gabriela Goldschmidt
1999 Expertise and the use of visual analogy: implications for design education. *Design Studies* 20: 153-175.

Centuori, Jeanine
1999 Building codes as dress codes for the protective clothing of buildings. *Architronic. The Electronic Journal of Architecture* 1 (1). Online document. Accessed at [http://www.saed.kent.edu/Architronic/v1n1/v1n1.04a.html]

Charteris-Black, Jonathan
2000 Metaphor and vocabulary teaching in ESP economics. *English for Specific Purposes* 19: 149-165.
2004 *Corpus Approaches to Critical Metaphor Analysis*. Basingstoke: Palgrave Macmillan.

Chilton, Paul
1996 *Security Metaphors. Cold War Discourse. From Containment to Common House*. New York: Peter Lang.

Cienki, Alan
1997 Some properties and groupings of image schemas. In *Lexical and Syntactical Constructions and the Construction of Meaning*, Marjolijn Verspoor, Kee Dong Lee, and Eve Sweetser (eds.), 3-15. Amsterdam/Philadelphia: John Benjamins.

Clausner, Timothy C., and William Croft
1999 Domains and image schemas. *Cognitive Linguistics* 10 (1): 1-31.

Clark, Herbert, and Eve Clark
1977 *Psychology and Language: An Introduction to Psycholinguistics*. New York: Harcourt Brace Jovanovich.

Collins, Peter
1970 *Los Ideales de la Arquitectura Moderna; Su Evolución (1750-1950)*. [*The ideals of Modern Architecture; Its Evolution (1750-1950)*] Barcelona: Gustavo Gili.

Cooper, David
1986 *Metaphor*. London: Blackwell.

Cortazzi, Martin, and Lixian Jin
1999 Bridges to learning: Metaphors of teaching, learning and language. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 149-176. Cambridge: Cambridge University Press.

Coulson, Seana, and Todd Oakley
2000 Blending basics. *Cognitive Linguistics* 11 (3/4): 175-196.

Crider, Carolyn, and Leonard Cirillo
1991 Systems of interpretation and the function of metaphor. *Journal for the Theory of Social Behaviour* 21 (2): 171-195.

Cytowic, Richard E.
1989 *Synesthesia: A Union of the Senses*. New York: Springer Verlag.
1995 Synesthesia: Phenomenology and Neuropsychology. A Review of Current Knowledge. *Psyche* 2 (10). Online Document. Accessed at [http://psyche.cs.monash.edu.au/v2/psyche-2-10-cytowic.html]

Cytowic, Richard E., and Frank B. Wood
1982 Synesthesia: A review of major theories and brain basis. *Brain and Cognition* 1: 23-35.

Darke, Jane
1979 The primary generator and the design process. *Design Studies* 1: 36-44.

Davidson, Donald
1979 What metaphors mean. In *On Metaphor*, Sheldon Sacks (ed.), 29-46. Chicago: University of Chicago Press.
1984 *Inquiries into Truth and Interpretation*. Oxford: Clarendon Press.

Deignan, Alice
1997 A Corpus-based study of some linguistic features of metaphor. Ph. D. diss., University of Birmingham.

Devitt, Amy J.
1993 Generalizing about genre: New conceptions of an old concept. *College Composition and Communication* 44 (4): 573-586.

van Dijk, Teun A.
1988 *News as Discourse*. Hillsdale, NJ: Lawrence Erlbaum.

Dirven, René
1994 *Metaphor and Nation: Metaphors Afrikaners Live by*. Frankfurt am Main: Peter Lang.
1995 The construal of cause: the case of cause prepositions. In *Language and the Cognitive Construal of the World*, John R. Taylor, and Robert E. MacLaury (eds.), 95-118. Berlin: Mouton de Gruyter.

Dirven, René, and Marjolijn Verspoor (eds.)
1998 *Cognitive Exploration of Language and Linguistics*. Amsterdam: John Benjamins.

Downing, Pamela
1977 On the creation and use of English compound nouns. *Language* 53: 810-842.

Drew, Paul, and Elizabeth Holt
1988 Complainable matters: The use of idiomatic expressions in making complaints. *Social Problems*, 35 (4): 398-417.
1995 Idiomatic expressions and their role in the organisation of topic transition in conversation. In *Idioms: Structural and Psychological Perspectives*, Martin Everaert, Erik-Jan van der Linden, André Schenk, and Rob Schreuder (eds.), 117-132. Hillsdale, N.J.:

and Rob Schreuder (eds.), 117-132. Hillsdale, N.J.: Lawrence Erlbaum.

1998 Figures of speech: Figurative expressions and the management of topic transition in conversation. *Language in Society* 27 (4): 495-522.

Dudley-Evans, Tony

1987 An outline of the value of genre analysis in LSP work. In *Special Language from Humans Thinking to Thinking Machines*, Christer Lauren, and Marianne Nordmann (eds.), 72-80. Clevedon: Multilingual Matters.

Eco, Umberto

1984 *Semiotics and the Philosophy of Language*. London: Macmillan Press.

Eggins, Suzanne

1994 *An Introduction to Systemic Functional Linguistics*. London: Pinter.

Ellis, Rod

2001 The metaphorical constructions of second language learners. In *Learner Contributions to Language Learning. New Directions in Research*, Michael Breen (ed.), 65-85. Harlow: Pearson Education.

Fairclough, Norman

1992 *Discourse and Social Change*. Cambridge: Polity Press.

Fauconnier, Gilles

1985 *Mental Spaces. Aspects of Meaning Construction in Natural Language*. Cambridge, Mass.: MIT Press.

1994 *Mental Spaces*. New York: Cambridge University Press.

1997 *Mappings in Thought and Language*. Cambridge/New York: Cambridge University Press.

Fauconnier, Gilles, and Mark Turner

1994 Conceptual Projection and Middle Spaces. Department of Cognitive Science Technical Report 9401. San Diego: University of California. Online document. Accessed at [http://cogsci.uod.edu]

1996 Blending as a central process of grammar. In *Conceptual Structure, Discourse and Language*, Adele Goldberg. (ed.), 113-130. Stanford, CA: CSLI Publications.

1998 Conceptual integration networks. *Cognitive Science* 22 (2): 133-187.

Fawcett, Robin P.

1980 *Cognitive Linguistics and Social Interaction. Towards an Integrated Model of a Systemic Functional Grammar and the other Components of a Communicating Mind.* Heidelberg: Julius Groos Verlag and Exeter University.

1987 The semantics of clause and verb for relational processes in English. In *New Developments in Systemic Linguistics. Vol 1. Theory and Description*. Michael A. K. Halliday, and Robin P. Fawcett (eds.), 130-183. London/New York: Frances Pinter.

Flowerdew, John
1993 An educational, or process, approach to the teaching of professional genres. *ELT Journal* 47 (4): 305-316.

Forceville, Charles
1996 *Pictorial Metaphor in Advertising*. London/New York: Routledge.
2004 Review of Gilles Fauconnier and Mark Turner *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. *Metaphor and Symbol* 19 (1): 83-89.

Forty, Andrew
2000 *Words and Buildings. A Vocabulary of Modern Architecture*. London: Thames and Hudson.

Friedrich, Paul
1991 Polytropy. In *Beyond Metaphor: The Theory of Tropes in Anthropology*, James Fernández (ed.), 17-55. Stanford, CA: Stanford University Press.

Gentner, Derdre
1982 Are scientific analogies metaphors? In *Metaphor: Problems and Perspectives*, David S. Miall (ed.), 106-132. Brighton: Harvester.
1983 Structure mapping: A theoretical framework for analogy. *Cognitive Science*, 7: 155-170.

Gerrig, Richard J., and Raymond W. Gibbs
1988 Beyond the lexicon: Creativity in language production. *Metaphor and Symbolic Activity*, 3 (1): 1-19.

Gibbs, Raymond W.
1994 *The Poetics of Mind: Figurative Thought, Language, and Understanding*. Cambridge/New York: Cambridge University Press.

Gibbs, Raymond W., and Jody Bogdonovich
1999 Mental imagery in interpreting poetic metaphor. *Metaphor and Symbol* 14 (1), 37-44.

Gibbs, Raymond W., and Gerard J. Steen (eds.)
1999 *Metaphor in Cognitive Linguistics*. Amsterdam/Philadelphia: John Benjamins.

Gleitman, Lila R., and Henry Gleitman
1970 *Phrase and Paraphrase: Some Innovative Uses of Language*. New York: Norton.

Goatly, Andrew
1997 *The Language of Metaphors*. London and New York: Routledge.

Goldberg, Adele E.
1995 *A Construction Grammar Approach to Argument Structure*. Chicago/London: The University of Chicago Press.

Goldschmidt, Gabriela
1994 Visual analogy in design. In *Cybernetics and Systems* '94, Robert Trappl (ed.), 507-514. Singapore: World Scientific.

1995 Visual displays for design: imagery, analogy and databases of visual images. In *Visual Data Bases in Architecture*, Alexander Koutamanis, Harry Timmerman, and Ilse Vermeulen (eds.), 53-74. Aldershot, UK: Averbury.

Goodwin, Charles
2001 Practices of seeing visual analysis: An ethnomethodological approach. In *Handbook of Visual Analysis*, Teo van Leeuwen, and Carey Jewitt (eds.), 157-182. London: Sage.

Grady, Joseph
1997 THEORIES ARE BUILDINGS revisited. *Cognitive Linguistics* 8 (4): 267-290.
1999 A typology of motivation for conceptual metaphor. Correlation vs. resemblance. In *Metaphor in Cognitive Linguistics*, Raymond W. Gibbs, and Gerard J. Steen (eds.), 79-100. Amsterdam/Philadelphia: John Benjamins.

Halliday, Michael A.K.
1984 *Language as Social Semiotic: The social Interpretation of Language and Meaning*. London: Edward Arnold.
1985 *Functional Grammar*. London: Edward Arnold

Halliday Michael A.K., and James R. Martin
1993 *Writing Science. Literacy and Discursive Power*. London: The Falmer Press.

Harder, Peter
2003 Mental spaces: Exactly when do we need them? *Cognitive Linguistics* 14 (1): 91-96.

Henderson, Willie
1986 Metaphor in economics. In *Talking about Text* (Discourse Monographs No. 13. English Language Research), Malcolm Coulthard (ed.), 109-127. Birmingham: University of Birmingham.
1994 Metaphor and economics. In *New Approaches to Economics Methodology*, Roger Backhouse (ed.), 343-367. London: Routledge.
1998 Metaphor. In *The Handbook of Economic Methodology*, John B. Davis, D. Wade Hands, and Uskali Mäki (eds.), 289-294. Cheltenham: Edward Elgar.

Hoey, Michael
1983 *On the Surface of Discourse*. Department of English Studies, University of Nottingham.
1991 *Patterns of Lexis in Text*. Oxford: Oxford University Press.

Honeck, Richard P., and Robert R. Hoffman (eds.)
1980 *Cognition and Figurative Language*. Hillsdale, NJ.: Lawrence Erlbaum Associates.

Howe, Nicholas
1988 Metaphor in contemporary American political discourse. Metaphor *and Symbolic Activity* 3 (2): 87-104.

Hunston, Susan
2000 Evaluation and the planes of discourse: Status and value in persuasive texts. In *Evaluation in Text. Authorial Stance and the Construction of Discourse*, Susan Hunston, and Geoff Thompson (eds.), 176-207. Oxford/New York: Oxford University Press.

Hunston, Susan, and John M. Sinclair
2000 A local grammar of evaluation. In *Evaluation in Text. Authorial Stance and the Construction of Discourse*, Susan Hunston, and Geoff Thompson (eds.), 74-101. Oxford/New York: Oxford University Press.

Hunston, Susan, and Geoff Thompson (eds.)
2000 *Evaluation in Text. Authorial Stance and the Construction of Discourse.* Oxford/New York: Oxford University Press.

Hyland, Ken
1998 *Hedging in Scientific Research Articles.* Amsterdam/Philadelphia: John Benjamins.

Indurkhya, Bipin
1992 *Metaphor and Cognition. An Interactionist Approach.* Dordrecht/Boston/London: Kluwer Academic Publishers.

Jahn, Manfred
1997 Frames, preferences, and the reading of third-person narratives: Towards a cognitive narratology. *Poetics Today*, 18 (4): 441-468.

Jewitt, Carey, and Rumiko Oyama
2001 Visual meaning: A social semiotic approach. In *Handbook of Visual Analysis*, Teo van Leeuwen, and Carey Jewitt (eds.), 134-156. London: Sage.

Johnson, Mark
1987 *The Body in the Mind.* Chicago/London: The University of Chicago Press.

Kittay, Eva Feder
1987 *Metaphor: Its Cognitive Force and Linguistic Structure.* Oxford/New York: Oxford University Press.

Kövecses, Zoltan
2000 *Metaphor and Emotion. Language, Culture, and Body in Human Feeling.* Cambridge: Cambridge University Press.

Kress, Gunther, and Teo van Leeuwen
1996 *Reading Images: The Grammar of Visual Design.* London: Routledge.

Krier, Robert
1988 *Architectural Composition.* New York: Rizzoli.

Koller, Veronika
2004 *Metaphor and Gender in Business Media Discourse. A Critical Cognitive Study.* Basingstoke: Palgrave Macmillan.

Kuhn, Thomas S.
1979 Metaphor in Science. In *Metaphor and Thought*, Anthony Ortony (ed.), 409-419. Cambridge/New York: Cambridge University Press.

Labov, William
1972 *Language in the Inner City*. Philadelphia: University of Pennsylvania.

Lakoff, George
1987a *Women, Fire and Dangerous Things: What Categories Reveal about the Mind*. Chicago: University of Chicago Press.
1987b Image Metaphors. *Metaphor and Symbolic Activity* 2 (3): 219-222.
1990 The Invariance Hypothesis: is abstract reason based on image-schemas? *Cognitive Linguistics* 1 (1): 39-74.
1993 The Contemporary Theory of Metaphor. In *Metaphor and Thought*, 2d ed., Anthony Ortony (ed.), 202-251. Cambridge/New York: Cambridge University Press.

Lakoff, George, and Mark Johnson
1980 *Metaphors We Live by*. Chicago/London: The University of Chicago Press.
1999 *Philosophy in the Flesh. The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Lakoff, George, and Mark Turner
1989 *More than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago/London: The University of Chicago Press.

Langacker, Ronald
1986 Abstract motion. *Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics Society*, 455-471. Berkeley, CA: Berkely Linguistics Society.
1987 *Foundations of Cognitive Grammar: Theoretical Prerequisites*. Vol. I. Stanford, CA: Stanford University Press.
1991 *Foundations of Cognitive Grammar: Practical Applications*. Vol. II. Stanford, CA: Stanford University Press.
2002 *Concept, Image, and Symbol. The Cognitive Basis of Grammar*. Berlin/New York: Mouton de Gruyter.

Larkin, Jill H., and Herbert A. Simon
1987 Why a diagram is (sometimes) worth ten thousand words. *Cognitive Science* 11: 65-99.

Larson, Steve, and Mark Johnson
2004 Architectural Metaphors in Music Discourse and Music Experience. *Yearbook of Comparative and General Literature* 50: 141-154.

Lawson, Bryan
1980 *How Designers Think*. London: The Architectural Press.

Lawson, Bryan, and Shee Ming Loke
1997 Computers, words, and pictures. *Design Studies* 18: 171-183.

Lee, David
2001 Genres, registers, text types, domains, and styles: Clarifying the concepts and navigating a path through the BNC jungle. *Language Learning and Technology* 3 (5): 37-72.

Leech, Geoffrey
1983 *Principles of Pragmatics*. London: Longman.

van Leeuwen, Teo, and Carey Jewitt (eds.)
2001 *Handbook of Visual Analysis*. London: Sage.

Lerman, Carol L.
1984 The functions of metaphor in discourse: Masking metaphor in the Nixon conversations. In *Whimsy 2. Metaphors Be with You: Humour and Metaphor* (*Proceedings of the 1983 Whimsy Conference*), Don L.F. Nilsen (ed.), 139-141. Tempe: Arizona State University.

Levin, Beth
1993 *English Verb Classes and Alternations*. Chicago/London: The University of Chicago Press.

Lindstromberg, Seth
1991 Metaphor and ESP: A ghost in the machine? *English for Specific Purposes* 10: 207-225.

Loffler-Laurian, Anne Marie
1994 Réflexions sur la métaphore dans les discours scientifiques de vulgarisation. *Langue Française* 101: 72-79.

Loos, Adolf
1924 Regarding economy. In *Raumplan versus Plan Libre 1919-1930*, Max Risselada (ed.), 125-141. New York: Rizzoli.

Low, Graham
1988 On teaching metaphor. *Applied Linguistics* 9 (2): 125-147.
1997 Celebrations and SQUID sandwiches: Figurative Language and the manipulation of academic writing. Project Report. University of York: EFL Unit, pp 46.
1999a This paper thinks ... Investigating the acceptability of the metaphor AN ESSAY IS A PERSON. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 221-248. Cambridge: Cambridge University Press.
1999b Validating metaphor research projects. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 48-65. Cambridge: Cambridge University Press.

MacCormac, Earl
1990 *A Cognitive Theory of Metaphor*. London: MIT Press.

Mahon, James Edwin
1999 Getting your sources right. What Aristotle didn't say. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 69-80. Cambridge: Cambridge University Press.

Mandler, Jean M., and Nancy S. Johnson
1977 Remembrance of Things Parsed: Story Structure and Recall. *Cognitive Psychology* 9: 111-151.
Markkanen. Raija, and Hartmut Schröder (eds.)
1997 *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin/New York: Walter de Gruyter.
Markus, Thomas A., and Deborah Cameron
2002 *The Words between the Spaces: Buildings and Language.* London: Routledge.
Martin, James.R.
1981 Lexical cohesion. *Mimeograph,* Linguistics Department, University of Sidney.
Martin, J James R., Christian Matthiessen, and Clare Painter
1997 *Working with Functional Grammar.* London/New York: Arnold.
Matsumoto, Yo
1996 Subjective motion in English and Japanese verbs. *Cognitive Linguistics* 7: 183-226.
Mayer, Richard E.
1993 The instructive metaphor: Metaphoric aids to students' understanding of science. In *Metaphor and Thought.* 2d ed., Anthony Ortony (ed.), 561-578. Cambridge/New York: Cambridge University Press.
Medway, Peter
1996 Writing, speaking, drawing: the distribution of meaning in architects' communication. In *The New Writing Environment: Writers at Work in a World of Technology,* Mike Sharples and Thea van der Geest (eds.), 25-42. London: Springer Verlag.
2000 Rhetoric and architecture. In *Learning to Argue in Higher Education,* Richard Andrews, and Sally Mitchell (eds.), 26-39. Porstmouth, NH.Boynton/Cook Heinemann.
Medway, Peter, and Bob Clark
2003 Imagining the building: architectural design as semiotic construction. *Design Studies* 24: 255-273.
Miller, George A.
1979 Images and models, similes, and metaphors. In *Metaphor and Thought,* Anthony Ortony (ed.), 202-250. Cambridge/New York: Cambridge University Press.
Minsky, Marvin
1975 A Framework for Representing Knowledge. In *The Psychology of Computer Vision,* Patrick Evinston (ed.), 211-277. New York: McGraw-Hill.

Mooij, Jan Johann A.
1976 *A Study of Metaphor: On the Nature of Metaphorical Expressions, with Special Reference to their Reference.* Amsterdam: North Holland.

Moon, Rosamund
1998 *Fixed Expressions and Idioms in English. A Corpus-Based Approach.* Oxford/New York: Clarendon Press.

Motta-Roth, Désirée
1995 Rhetorical features and disciplinary cultures: A genre-based study of academic book reviews in linguistics, chemistry, and economics. Ph.D. diss., Federal University of Santa Catarina.

Musolff, Andreas
2004 *Metaphor and Political Discourse: Analogical reasoning in Debates about Europe.* Basingstoke: Palgrave Macmillan.

Nash, Walter
1990 Introduction: The stuff these people write. In *The Writing Scholar: Studies in Academic Discourse*, Walter Nash (ed.), 8-30. Newbury Park: Sage.

Neumeyer, Franz
1991 *The Artless World. Mies van der Rohe and the Art of Building.* Cambridge, MA: MIT Press.

Nunan, David
1993 *Introducing Discourse Analysis.* London: Penguin.

Ortony, Andrew
1975 Why metaphors are necessary and not just nice. *Educational Theory*, 25: 45-53.
1979 The role of similarity in similes and metaphors. In *Metaphor and Thought*, Anthony Ortony (ed.), 186-201. Cambridge/New York: Cambridge University Press.

Oxman, Robert M.
1995 The reflective eye: visual reasoning in design. In *Visual Data Bases in Architecture*, Alexander Koutamanis, Harry Timmerman, and Ilse Vermeulen (eds.), 89-112. Aldershot, UK: Averbury.
2002 The thinking eye: visual re-cognition in design emergence. *Design Studies* 23: 135-164.

Panther, Klaus-Uwe, and Günther Radden (eds.)
1999 *Metonymy in Language and Thought.* Amsterdam/Philadelphia: John Benjamins.

Panther, Klaus-Uwe, and Linda Thornburg
2000 The EFFECT FOR CAUSE metonymy in English grammar. In *Metonymy and Metaphor at the Crossroads*, Antonio Barcelona (ed.), 215-232. Berlin: Mouton de Gruyter.

Partington, Alan
1998 *Patterns and Meanings. Using Corpora for English Language Research and Teaching.* Amsterdam/Philadelphia: John Benjamins.
Peña, Sandra
2002 *Topology and Cognition: What Image-schemas Reveal about the Metaphorical Language of Emotions.* Munich: Lincom Europa.
Petrie, Hugh G.
1979 Metaphor and learning. In *Metaphor and Thought*, Anthony Ortony (ed.), 438-461. Cambridge/New York: Cambridge University Press.
Petrie, Hugh G., and Rebecca Oshlag
1993 Metaphor and Learning. In *Metaphor and Thought.* 2d ed., Anthony Ortony (ed.), 579-609. Cambridge/New York: Cambridge University Press.
Piller, Ingrid
1999 Extended metaphor in automobile discourse. *Poetics Today* 20 (3): 483-498.
Prince, Ellen F., Joel Frader, and Charles Bosk
1982 On hedging in physician-physician discourse. In *Linguistics and the Professions*, Robert J. Di Pietro (ed.), 83-97. Norwood, N.J.: Ablex.
Quine, Willard V.
1981 *Theories and Things.* Cambridge: Harvard University Press.
Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik
1991 *A Comprehensive Grammar of the English Language.* Revised edition. London/New York: Longman.
Richards, Ivor A.
1936 *The Philosophy of Rhetoric.* Oxford: Oxford University Press.
Ricoeur, Paul
1975 *La Métaphore Vive.* París: Seuil.
1986 *The Rule of Metaphor.* London: Routledge and Kegan Paul.
Ritchie, David
2003 ARGUMENT IS WAR –Or is it a game of chess? Multiple meanings in the analysis of implicit metaphors. *Metaphor and Symbol* 18: 125-146.
2004 Common ground in metaphor theory: Continuing the conversation. *Metaphor and Symbol* 19: 233-244.
Rorty, Richard
1989 *Contingency, Irony, and Solidarity.* New York: Cambridge University Press.
Ruiz de Mendoza, Francisco J.
1998 On the nature of blending as a cognitive phenomenon. *Journal of Pragmatics* 30: 259-274.
1999 *From Semantic Underdetermination via Metaphor and Metonymy to Conceptual Interaction.* Essen: LAUD 492.

Ruiz de Mendoza, Francisco J., and Sandra Peña
2002 Cognitive operations and projection spaces. *Jezikoslovije* 3 (1-2): 131-158.
Ruiz de Mendoza, Francisco J., and Francisco Santibáñez
in press Content and formal cognitive operations in construing meaning. *Italian Journal of Linguistics* 16 (1).
Rumelhart, Donald E.
1980 Schemata: The Building Blocks of Cognition. In *Theoretical Issues in Reading Comprehension*, Rand J. Spiro, Bertram C. Bruce, and William F. Brewer (eds.), 33-58. Hillsdale, N.J.: Erlbaum.
Ruthrof, Horst
1997 *Semantics and the Body: Meaning from Frege to the Postmodern.* Toronto: University of Toronto Press.
Ryder, Mary Ellen
1994 *Ordered Chaos. The Interpretation of English Noun-Noun Compounds.* Berkeley/Los Angeles: University Of California Press.
Sadock, Jerrold
1979 Figurative speech and linguistics. In *Metaphor and Thought*, Anthony Ortony (ed.), 46-63. Cambridge/New York: Cambridge University Press.
Schank, Robert C., and Robert Abelson
1977 *Plans, Scripts, Goals and Understanding.* Hillsdale, N.J.: Erlbaum.
Schön, Donald A.
1983 *The Reflective Practitioner: How Professionals Think in Action.* New York: Basic Books.
Searle, John
1979 Metaphor. In *Metaphor and Thought*, Anthony Ortony (ed.), 83-111. Cambridge/New York: Cambridge University Press.
Simon. Herbert A.
1994 Literary criticism: A cognitive approach. *Stanford Humanities review* (Special Supplement *'Bridging the gap': Where cognitive science meets literary criticism*) 4 (1): 1-26.
Simpson, Paul
1990 Modality in literary-critical discourse. In *The Writing Scholar: Studies in Academic Discourse*, Walter Nash (ed.), 63-94. Newbury Park: Sage.
Sinclair, John M.
1986 Fictional Worlds. In *Talking about Text*, Malcolm Coulthard (ed.), 43-60. (Discourse Monographs No. 13. English Language Research) Birmingham: University of Birmingham.
Slobin, Dan
1996 Two ways to travel: Verbs of motion in English and Spanish. In *Grammatical Constructions: Their Form and Meaning*, Masayoshi

Shibatani, and Sandra Thompson (eds.), 195-220. Oxford: Clarendon.

Sontag, Susan
1979 *Illness as Metaphor*. London: Allen Lane.

Steen, Gerard J.
1991 Discourse Aspects of Metaphor. *Dutch Quarterly Review of Anglo-American Letters* 21: 82-102.
1994 *Understanding Metaphor in Literature*. London/New York: Longman.
1999a Metaphor and discourse. Towards a linguistic checklist for metaphor analysis. In *Researching and Applying Metaphor*, Lynne Cameron, and Graham Low (eds.), 81-104. Cambridge: Cambridge University Press.
1999b From linguistic to conceptual metaphor in five steps. In *Metaphor in Cognitive Linguistics*, Raymond W. Gibbs, and Gerard J. Steen (eds.), 57-77. Amsterdam/Philadelphia: John Benjamins.
2001 A rhetoric of metaphor. Conceptual and linguistic metaphor and the psychology of literature. In *The Psychology and Sociology of Literature*, Dick Schram, and Gerard J. Steen (eds.), 145-163. Amsterdam/Philadelphia: John Benjamins.
2002 Towards a procedure for metaphor identification. *Language and Literature* 11 (1): 17-33.

Sticht, Thomas G.
1979 Educational uses of metaphor. In *Metaphor and Thought*, Anthony Ortony (ed.), 474-485. Cambridge/New York: Cambridge University Press.
1979 Educational uses of metaphor. In *Metaphor and Thought*, Anthony Ortony (ed.), 474-485. Cambridge/New York: Cambridge University Press.

Stubbs, Michael
1986 A matter of prolonged fieldwork: towards a modal grammar of English. *Applied Linguistics* 7 (1): 1-25.

Suwa, Masaki, and Barbara Tversky
1997 What do architects and students perceive in their design sketches? A protocol analysis. *Design Studies* 18: 385-403.

Swales, John
1990 *Genre Analysis*. Cambridge: Cambridge University Press.

Tadros, Angela
1993 The pragmatics of text averral and attribution in academic texts. In *Data, Description, Discourse. Papers on the English Language in Honour of John McH Sinclair*, Michael Hoey (ed.), 98-114. London: HarperCollins.

Talmy, Leonard
1983 How language structures space. In *Spatial Orientation: Theory, Research and Application*, Herbert L. Pick, and Lindo Acredolo (eds.), 225-282. New York: Plenum Press.
1996 Fictive motion in language and "ception". In *Language and Space*, Paul Bloom, Mary A. Peterson, Lynn Nadel, and Merrill F. Garrett (eds.), 211-276. Cambridge, MA and London: MIT Press.
2000 *Toward a Cognitive Semantics, Vol I: Conceptual Structuring Systems*. Cambridge: MIT Press.

Taylor, John R.
2002 *Cognitive Grammar*. Oxford: Oxford University Press.

Thompson, Geoff
1996 *Introducing Functional Grammar*. London/New York: Arnold.

Tsur, Reuven
1992 *Toward a Theory of Cognitive Poetics*. Amsterdam: Elsevier (N. Holland).

Turner, Mark
1990 Aspects of the Invariance Hypothesis. *Cognitive Linguistics*, 1 (2): 247-255.
1993 An image-schematic constraint on metaphor. In *Conceptualizations and Mental Processing in Language*, Richard A. Geiger, and Brygida Rudzka-Ostyn (eds.), 291-306. Berlin/New York: Mouton de Gruyter.

Turner, Mark, and Gilles Fauconnier
1995 Conceptual integration and formal expression. *Journal of Metaphor and Symbolic Activity* 10 (3): 183-204.
2000 Metaphor, metonymy and binding. In *Metaphor and Metonymy at the Crossroads*, Antonio Barcelona (ed.), 133-145. Berlin: Mouton de Gruyter.

Tversky, Barbara
1995 Cognitive origins of graphic conventions. In *Understanding Images*, Francis T. Marchese (ed.), 29-53. New York: Springer.

Ungerer, Friedrich, and Hans-Jorg Schmid
1996 *An Introduction to Cognitive Linguistics*. London/New York: Longman.

Veale, Tony
1995 *Metaphor, Memory and Meaning: Symbolic and Connectionist Issues in Metaphor Comprehension*. Ph D diss., School of Computer Applications, Trinity College, Dublin. Online document. Accessed at [http://www.compapp.dcu.ie/~tonyv/metaphor.html]

Veale, Tony, and Diarmuid O'Donoghue
2000 Computation and blending. *Cognitive Linguistics* 11 (3/4): 253-281.

Vervaeke, John, and John M. Kennedy
2004 Conceptual Metaphor and Abstract Thought. *Metaphor and Symbolic Activity* 19: 213-231.

Voss, James F, Joel Kennet, Jennifer Wiley, and Tonya Y. E. Schooler
1992 Experts at debate: The use of metaphor in the U.S. senate debate on the Gulf crisis. *Metaphor and Symbolic Activity* 10 (2): 59-92.

Warren, Beatrice
1978 *Semantic Patterns of Noun-Noun Compounds*. (Gothenburg Studies in English 41). Lund: Acta Universitatis Gothoburgensis.

Webber, Pauline
1996 Metaphor in Medical English Abstracts, Unesco *ALSED-LSP Newsletter* 19/1 (41): 35-52.

Werlich, Egon
1982 *A Text Grammar of English*. Heidelberg: Quelle and Meyer.

Whaley, Bryan B.
1993 When 'Try, Try Again' Turns to 'You're Beating a Dead Horse': The Rhetorical Characteristics of Proverbs and Their Potential for Influencing Therapeutic Change. *Metaphor and Symbolic Activity* 8 (2): 127-139.

Winograd, Terry
1975 Frame Representations and the Declarative-Procedural Controversy. In *Representation and Understanding: Studies in Cognitive Science*, DanielG. Bobrow, and Allen M. Collins (eds.), 185-210. New York: Academic Press.

Winter, Eugene O.
1982 *Towards a Contextual Grammar of English: The Clause and its Place in the Definition of Sentence*. London: Allen & Unwin.

Winter, Stephen
1989 Transcendental Nonsense, metaphoric reasoning, and the cognitive stakes for law. *University of Pennsylvania Law Review* 137: 1105-1198.

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