Visual Research Methods
in Architecture
Visual Research Methods in Architecture

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Introduction: Visual research methods and ‘critical visuality’

Igea Troiani and Suzanne Ewing

1. Architecture is a visual, textual and corporeal discipline as well as a spatial and material one. However, unlike geography or ethnography, both of which have evolved methods of visual research in their fields, visual research methods in architecture are poorly defined. In this book we take lead from cultural geographer, Gillian Rose ([2001] 2012: xix) who defines ‘critical visual methodology’ as, ‘an approach that thinks about the visual in terms of the cultural significance, social practices and power relations that produce, are articulated through and can be challenged by, ways of seeing and imagining’. In Visual Methodologies, Rose ([2001] 2012) offers a series of qualitative methodological strategies that focus around different types of imagery to aid visual interpretation in cultural geography research. Qualitative interpretation of the visual can address questions of cultural meaning and power differently, sometimes more appropriately, than quantitative methods (Rose [2001] 2012: 3).

Acknowledging the rise and consolidation of visual research methods across the social sciences in the past 20 years, such as visual ethnography, image-elicitation interviews and visual participatory research, Rose (2015) observes that the value of visual research methods has emerged as the capacity to: generate evidence that other methods cannot; invite different registers of affect; reveal the ‘taken-for-granted’ and enrich participatory and action research. These methods have a particular strength in qualitative, people-centred research projects. She argues that beyond making sociological and ethnographic work ‘visible’, there is a potential performative approach to the making of images as well as their examination (Rose [2001] 2012: 10). Visual research methods may extend possibilities beyond just interpretation of visual material – and use of the visual in communication of research findings – to critique and perform practice-based ‘critical visuality’.

Like cultural geography, architecture is a discipline that uses practice-based methods where representation is a valid, productive and interpretative domain. Visual Research Methods in Architecture reviews research practice that traverses
humanities and creative practice-based research. In addition to the fact that there is no consolidated literature on visual research methods in architecture, this book’s originality is in setting out ground for how visual research methodologies may be explicitly and distinctively activated in architectural research and interdisciplinary scholarship, following leads in visual culture studies. It does not attempt to engage with de-contextualized quantitative and descriptive dimensions of data visualization or mapping as research, but instead emphasizes the generative, analytical and culturally situated practices of visual research methods. Contributing authors demonstrate and extend the practice knowledge of architectural research by responding to what is distinctive or specific about the architect’s gaze, what might be made visible and how ‘visuality’ is understood and used as a method by research practitioners from a range of disciplinary positions, traditions and experiences. From established to emerging researchers, researcher-practitioners to media-specific practitioners, with backgrounds and topics traversing Europe, the United States, Australia and Africa, and from different disciplinary backgrounds, contributors to the book explore and use ‘critical visualizations’. They represent a variety of voices, writing styles and nationalities, showcasing important variations in immediacy and relevance of modes of writing and subject, some being more artistic, experimental or open-ended than others. Most of the essays are testimonial. Oral or written testimonies – accounts of and for practice – are deeply personal, experiential, rare and embedded in methodological approaches that are not easy to corroborate or verify with other sources. The contributions in this book have been selected and edited to bring to the fore the varied and often implicit visual practices of architectural researchers, whether emergent, experimental or consolidated and expertly practised. This is a new and negotiated territory that employs positive interdisciplinary risk-taking. Authors observe and provide critique through the creation of visual texts including drawings, diagrams, photography, film, paintings, visual devices and their hybrid forms. Particularly where observation is combined with sociocultural critique, the contributors cumulatively probe how use of visual methods for qualitative research creates more eloquent and effective visual literacy and agency so as to inform our understanding of occupied space and architecture.

The book intends to appeal to historians and theorists of design, as well as to architectural educators and practitioners. The outset of this volume (and our editorial position) is an observation that research practice in architectural humanities currently slips between two main modes: history/theory text-based discourses, and the visual production of architectural design. By exploring ‘critical visuality’ and explicitly promoting visual literacy and agency, the book aims to examine this research space ‘slippage’ in order to foreground inter-related knowledge generation. A ‘balanced diet’ approach to the book’s content, operating between and combining representation styles and modes, is at the core of our study of visual
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research methods in architecture. Valuing ‘critical visuality’ and ‘critical visual practice’ anchors the book’s purpose and argument.

The key findings from the assembled material make conclusions about the condition of ‘critical visuality’ as a kind of practice; what ‘critical gaze’ means in relation to the architect or architectural researcher; visual reciprocity; and dimensions of visual labour and capital – as aspects of ‘critical visualization’. ‘Critical visuality’ is defined here as a way of using vision to intellectually and intuitively critique architecture and space. Aesthetic appreciation and aesthetic interpretation are deeply embedded in our sociocultural constructs of beauty and ugliness that determine our design morals, practice approaches and environments. Philosopher Donna Haraway (1988: 581) has argued for reclaiming a metaphorical reliance on vision to avoid limiting binary oppositions and to deepen nuanced understanding of situated knowledge. Time-based drawings, diagrams and videos allow for space and time to be included in the research and for ‘critical visual’ analysis to become an actively open process. The combining of different visual media can facilitate exchanges that were previously not possible. Vital though, is that ‘critical visuality’ when applied by an architectural researcher-practitioner allows for a deeper, socioculturally positioned response to space that might otherwise be neglected. Visual research methods in architecture are shown in particular to expose and inform understandings of the complexities and constructions of social life situated in culture and space, and how it is transformed. The assembled research in the book’s chapters demonstrates how working with varied visual media can positively inform architectural research as not only didactic description but as a means to structure disciplinary thought.

The book is arranged in four parts, each foregrounded by an ‘Orientation’ and structured by the primary visual media in which the research manifests: Part 1 Drawing and Diagrams, Part 2 Photography, Part 3 Film and Part 4 Miscellaneous Mixed Modes and New Media. Sometimes chapters feature one or more visual media. The flow is from well-established or naturalized representation techniques in architecture (Drawing, Photography, Film) to a final section that encompasses emergent, innovative and hybrid research methodologies which explore and expose ‘critical visual’ practices as disciplinary and interdisciplinary.

Each of the four ‘Orientations’ of the book are purposely opened with a ‘grounding’ extract from a key architect or theorist practising in the field of visual studies – Perry Kulper, Sigfried Giedion, Denise Scott Brown and Mike Webb – to set a tone for the media being examined in each part. They also indicate the need to further explore questions of ‘critical visuality’ in histories and cultures of particular disciplinary formations and traditions. The subsequent series of chapters in each part are then broadly ordered into three sections that traverse: Techniques and Tools of Thinking Architecture and Visual Culture; Practising Architecture and Visual Culture Research and Teaching Architectural Research and Visual Culture.
Part 1 Drawing and diagrams: Disciplinary seeing and knowing

Figure 1: David’s Island Strategic Plot Drawing made: 1996–97 Drawing size: 24” x 36” Materials: Mylar, graphite, ink, tape, found imagery, x-rays, foil, photographs, transfer letters and transfer film, cut paper. © Perry Kulper.

The book aims to present a range of interdisciplinary approaches that open up territory for new forms of visual architectural scholarship.

Partially, as a result of allowing uncertainties to enter drawings I have enjoyed freedom of many kinds. A more relaxed and accommodating approach has allowed me to work ‘creatively’ (always a dangerous word) in broadened ways by supporting expanded relational capacities in the drawings to discuss things that might not otherwise be in play. I try to visualize and support ideas long enough to see if they might be relevant to a project in the long run. Increasingly, I am less judgmental about possible ideas for a project, especially in the early phases of a project – about whether everything in play is suitable for the piece of work. Depending on what I am working on I often make drawings, or parts of drawings that are not targeted at a synthetic building proposal, but are specific in their intent – studying erasure as a possible representational and spatial activity, for example.

(Kulper 2012)
The medium of drawing is a ‘key disciplinary ally for architecture’ (Kulper 2013: 59). It is a technique of thinking and actioning architecture. Contemporary architectural practitioner, researcher and educator, Perry Kulper (2013: 59) speaks of his drawing research as constructing ‘an emerging visual field of study’ and of approaching his work through ‘modes of visualization’ where ‘visualization and thinking are fused as a relational and synthetic practice’. He describes his drawings as ‘visual constructions’, ‘visual formulations’, ‘visualized species’ or ‘visual curiosity cabinets’ that offer ‘embroidered relationships and abstractions, known and discovered’ that aspire to ‘a new species of spatial vision with ethical and participatory ambitions’ (Kulper 2013: 59–63; 2014: 20–22). This rich, saturated graphic field resists definition as either pure design or pure research practice. Yet it is a uniquely architectural field of precise inquiry, substantiation and conclusive definition, a place to discover, expose and realize, as in his 1996–97 ‘David’s Island’ drawing (Figure 1). ‘David’s Island’ is explicitly set up as a representation to ask questions, to ‘formulate’, to literally give form to a question. It is a space of enquiry of material and spatial conditions for action that sets the tone for a critical drawing practice in architecture. Kulper demonstrates a way of constructing a different mode of [design] practice that has traction ‘to discover’, re-discover, inform, synthesize and be understood as a method of research through practice.

Kulper researches through his own drawing practice. This is perhaps partially recognizable as a model of artistic practice – the artist-researcher-author with auto-ethnographic tendencies. Kulper (2014: 30) acknowledges the need for conceptual artistic risk, but also ‘practised restraint’. As an individual practitioner, modes and methods of production are self-conscious, ‘tailored’ and traverse a balanced tension between conceptual risk-taking and daring to draw (Kulper 2014: 22). In his graphic drawing practice, Kulper knowingly borrows from composited, typographic printing technologies and techniques, two-dimensional descriptive geometry and three-dimensional rendering, activating both the analogue and digital. However, his drawing work is not solely graphic. He sees visualization as directly connected to spatial and programmatic thinking specific to architecture. This is drawn from deep disciplinary knowledge of the ways that architectural drawing has consciously operated in relation to the construction of architectural space (Perez-Gomez and Pelletier 1997).

An example of drawing operating in relation to architectural space is the medieval Saint Gall monastery, drawn as a plan by Eugène Viollet-le-Duc, and the protagonist of Chapter 1 in the book, entitled ‘Is the plan dying?’ by the British architectural historian, Peter Blundell Jones. Blundell Jones contends that Viollet-le-Duc’s drawing is a literal grounding of a project, working ‘from the plan up’ in detail. The plan is both a drawing and a diagram, consolidating what a building and a community are about. In contrast to Viollet-le-Duc’s monastery
plan, Blundell Jones observes the visual demise of the architectural plan drawing in printed architectural media today and interprets this as part of a waning in cultural and social discourse in western architecture. Perspectival views offer instantaneous visual spatial gratification with little work required on the part of the viewer. Having established the plan’s embodiment of idealized and actualized ‘social life’, Blundell Jones notes the influence of Michel Foucault’s examination of plans as instruments of power, and Henri Lefebvre’s attention to socially produced space. If the plan’s role in relation to social and spatial organization and order has been diminished in current architectural renderings, then an inability to ‘order’ the world, and to navigate social life – in both design process and in critical reception and production – is at stake.

Built works that can be visited and recorded and archives and publications of original drawings and models are primary sites of disciplinary architectural knowledge. How does an architect draw from these in their research practice and imaginative invention? Chapter 2 responds to this question in the example of architect Aldo Rossi’s A Scientific Autobiography published in 1981, following a 1976 exhibition of Rossi drawings. Rossi’s practice is situated in a particular international moment of critiquing the modern movement, foregrounding questions of memory and the city. Italian academic Susanna Pisciella’s research on this treatise re-constructs an image archive based on Rossi’s textual references in the chapter, ‘Analogical images: Aldo Rossi’s Autobiografia Scientifica’. Pisciella questions how an architect constructs and uses a visual archive, ‘building his own memory archive into “a universe of analogies”’. Following René Daumal and others, analogy is shown to be the particular methodology that Rossi uses to produce new visual and drawing knowledge. Analogy allows Rossi to tell tales, to build stories – though not exactly visual arguments – to set up architectural drawings and designs. Rather than work on impressions, Pisciella systematically selects ‘chains’ of Rossi’s images to demonstrate Rossi’s deeply ‘critical visual’ practice. The treatise by Rossi has the quality of a drama, script or public performance more than the intimacy of a novel and single author-reader experience. Therefore, the reader-viewer’s imagination is an active participant in making their own interpretations through Rossi’s visual findings and associations.

What is or should architecture and architectural research concern itself with in a globalized, contested twenty-first century? This question drives Tariq Toffa’s architectural pedagogical practice at the University of Johannesburg. Chapter 3, entitled ‘How to draw a line when the world is moving: Architectural education in times of urgent imagination’ by Toffa, argues that architecture’s contemporary purpose is to produce agency rather than products. Arguing that globalization neglects the social, Toffa contends that an ethical imagination in drawing is needed to generate new visions and voices. Drawing from Arif Dirlik’s argument about

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40.
the inseparability of the aesthetic and the social, Toffa exposes the power relations inherent in Euro-American-centric ‘visibility’ as having a significant influence on architectural design pedagogy and spatial designers. Through speculative, mixed-media drawing work, promoting a dialectic method and working explicitly with difference, Toffa’s studios explore research inquiries and conditions informed by methodological tactics of ‘voicing’, ‘multi-modality’, ‘siting (surfacing)’, ‘spaces of publics’, ‘territory’, ‘perspective’ and ‘reflexivity’. Noting the recent shifts in sociology and art history, where ‘sociological reflexivity’ is used as a research tool (d’Oliveira-Martins 2014: 193), the aim of Toffa’s and his students’ pedagogic work is to refocus an ethical imaginary that transcends and re-writes disciplinary and racial conventions through site-specific actions. Drawing can make social power relations visually tangible and Toffa’s essay makes an original contribution by presenting new drawing practices for research that decolonizes and emancipates space and architectural education.

The practice of making and working with drawings, diagrams and notations is demonstrated as a distinct visual research method for architecture by British-based academic Ray Lucas in Chapter 4, ‘Drawing as being: Moving beyond ways of knowing, modes of attention and habitus’. Theoretically extending Pierre Bourdieu’s (1992) concept of habitus to Martin Heidegger’s philosophy, and drawing on the work of anthropologist Tim Ingold, Lucas posits drawing as a way of operating in the world. He sees the exchange as a contextual entanglement. Lucas asks whether drawing can be considered as a mode of being and orientates an approach to the ways that the drawings have been acculturated in the specific and socially enacted practices that define everyday life. Through his own drawing practice, traversing architecture and anthropology, Lucas shows drawing as part of research, as a form of theoretical inquiry and field/work: a ‘graphic’ anthropology. Like Blundell Jones, Lucas notices a ‘death of [hand] drawing’ in architecture. Lucas calls for a changing role and potential of hand drawing in relation to understanding who drawings are for. Against a reading of Georges Bataille’s asymmetrical power relations embodied in gift giving, Lucas sees the exchange of drawings as a practice of distributing selfhood. He concludes that not all drawings are, or should be, shared because drawing operates as an aspect of self-development, and this exploration is fundamental to developing an evolving critical drawing practice.

The political and communicative project of visual language offering discursive statements in relation to opening a new reality is explored in Chapter 5, ‘Learning to see: Otto Neurath’s Visual Autobiography’ by Valeria Guzmán-Verri. Austrian philosopher of science and sociologist, Otto Neurath aims to understand and assemble informative wholes to drive modernism and the modern movement. His 1937 text, ‘Visual representation of architectural problems’, led to the project
From Hieroglyphics to Isotype: A Visual Autobiography. This developed Neurath’s (2010) interest in the experience of learning to see, of visual education and the democratization of knowledge, in visual experience and in drawing as play. Guzmán-Verri traces Neurath’s argument that a visual consciousness, understood as ‘knowing how to see well’ (Didi-Huberman 2009: 198) is deeply experiential, contextual and playful. Following Georges Didi-Huberman and Walter Benjamin, Guzmán-Verri researches Neurath’s work and influence on artists such as Harun Farocki. From her findings, Guzmán-Verri contends that a decisive difference in positioning, when attending to info-scapes, can shape new visual consciousness. She argues that there is an urgency to address and understand the agency of visual data in contemporary discourse and world making, namely, what is made visible, what is overlooked or not seen, where agency lies. In so doing, info-society as info-scape is understood as a dissolved, distributed, desiccated condition, brought out through the critical visual examination of material.

How the architect might use their gaze as part of their research practice for the purpose of visual literacy in navigating and constructing this world is discussed in Chapter 6 ‘Duration and Anexactitude: What is at stake with data-based Urban Drawing in Research?’ by Spanish architect and academic Miguel Paredes Maldonado. Digital data spatial intelligence in urban research and design is prevalent in contemporary drawing representation. However, the smart city paradigm is shown to be problematic because it is generated through top-down, assembled ‘wholes’ (de Landa 2016). Paredes Maldonado asks whether it is possible to articulate a data-based infrastructural counter-project that subverts these urban narratives of optimization, efficiency, atomization and top-down ‘smartness’. This chapter offers data-based urban drawing research practice from architectural design studios run by Paredes Maldonado in Cagliari, Sardinia in April 2017 and subsequently posits the ‘anexact’ drawing research methodology that is used in the studios, which embeds durational data with as much status as the gleaned quantitative information. The combination of data and generation of the data visualizations is reflected on by Paredes Maldonado as a visual research method that follows Bernard Cache’s approach to defying existing productive paradigms, looking for ‘other means’ to philosophize. Gilbert Simondon’s concepts of technical ensemble and transferences form a theoretical framework for the re-positioning of this visual research.

Ways of seeing, imagining, drawing and diagramming can be both general and specific. Architectural drawing always presses on the ‘imagined’. Kulper (2013: 63) shows that drawing tools are not singular, and if several are employed simultaneously or accumulatively, it is their relational aspects that then also need to be attended to. Drawing codes and conventions in disciplinary architectural ‘seeing’ have inbuilt significance, inflected by expertise of the reader-interpreter (Blundell...
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Jones), standpoint (Toffa), *habitus* (Lucas) and ways in which seeing has been learnt (Guzmán-Verri), accumulated and used analogically (Pisciella), or practised through critical data visualization (Paredes Maldonado). When extending critical visual methods into qualitative architectural research, it is in the area of articulating and challenging social practices that critical visual research methods of drawing seem to offer the most relevant and precise tools. Architecture already knows that conventional drawing methods of research and representation are not innocent in design practice. The disciplinary history of architecture has accumulated different modes and methods of drawing as tools of spatial practice. They are entangled with power and control when actively utilized in critical formulating, mapping and spatial planning practices.

*Part 2 Photography: Presence and positioning as a researcher*

Figure 2: Sigfried Giedion’s formatting of his own photographs of the Pont Transbordeur in Marseille (taken in January, 1927) when designing pp. 62f of *Bauen in Frankreich* as published in Harbusch (2015) (copyright: gta Archives ETH Zurich) + *Journal of Architecture* Harbusch.
I have found it preferable, in order to arrive at a true and complete understanding of the growth of the new tradition, to select from the vast body of available historical material only relatively few facts. History is not a compilation of facts, but an insight into a moving process of life. Moreover, such insight is obtained not by the exclusive use of the panoramic survey, the bird’s eye view, but by isolating and examining certain specific events intensively, penetrating and exploring them in the manner of the close-up.

(Giedion [1946] 1967: vi, Foreword to the first edition; italics in original text)

As Gregor Harbusch (2015: 609) has shown, social architectural historian, Siegfried Giedion’s ([1946] 1967) seminal work, Space, Time and Architecture, was an ongoing process of architectural research through close looking and photography during site visits, ‘a pivotal moment of insight’ informed by his individual viewpoint. Following his teacher, art historian, Heinrich Wölfflin, and against the expectations of his publisher, Giedion fought for the necessity of more images in his publications, which were significantly augmented in reprinted editions. There are 321 photographs in the 500 pages of the 1946 fifth edition. This was driven by an ambition – shared by Harvard University Press who published the book – to open the work to a wider public. The project was therefore one of both conventional scholarship and interpretation for a non-specialist audience, which relied on the original visual images as an important means to engage both audiences. The project’s roots are in the communicative domain of a lecture series. Giedion’s book-directing role, with Herbert Bayer and László Moholy-Nagy, in the production of the synthesized printed publication, demonstrates his attentiveness to the reader, with carefully directed instructions for use highlighting the role of text, images and comment as all crucial to the reader’s experience. As Harbusch (2015) demonstrates, Giedion’s overarching explicit intention was to promote modernism as the ‘new tradition’ through his scrupulous visual research. This is achieved through techniques and methods of photographic ‘correspondences’ – the often juxtaposed photographic images on page spreads – as a conceptual backbone to his research. The inter-relations between text and images were of primary concern to Giedion’s framing and substantiating of his argument about modern architecture.

Space, Time and Architecture is unusual in its encounter with the historian’s deliberate presence through his notes, comment-captions and photographs, which demonstrate the author’s particular experience of travelling to the site or project: argued as architecture’s constituent, rather than transitory, facts (Figure 2). Giedion ([1946] 1967: 11–17) further offers readers an insight into his personal research position, discussing ‘The Identity of Methods’. He argues for a renewed conjunction of thinking and feeling through history as an active way of living,
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and the historian as being the agent bringing rigorous constituent facts to
attention through direct engagement and affective experience. This argument
is founded in a desire to work across sciences and arts, including sociology and
psychology, with the primary aim to ‘observe seriously’ (Giedion [1946] 1967:
4). His project is deliberately visual and transdisciplinary, juxtaposing photo-
graphs of contemporary architecture, often fragmented views, with archival
drawings, paintings, sculpture and scientific devices. A close-up photograph
of a soaring iron structure is placed adjacent to one of Edgar Degas’s stage-lit
ballet dancers; a time lapse photograph of a golf swing motion is juxtaposed
with a collage of a variety of angled views of the Rockefeller building, New York;
images by Francesco Borromini are next to Vladimir Tatlin’s work etc. This
montage method of ‘comparative reading of artistic expressions from different
epochs’ (Harbusch 2015: 598) offers a breadth of visual references that condense
and reduce the nuances of the main research argument to a plea for moderni-
zation. The balancing of the visual, textual and commentary aspects of Space,
Time and Architecture is dynamic but is a carefully considered, structured
choreography of a broad range of photographic evidence.

The chapters in the ‘Photography’ section of the book explore the use of photo-
graphs both in terms of a researcher’s repertoire and choreography, and also as
research which is a positioned practice. The oversimplified view of architecture
being ‘served’ by photography, or as just a subject matter for photography, is
addressed by Irish academic Hugh Campbell in Chapter 7 ‘Looking at photo-
graphs: Thinking about architecture’. In it, Campbell questions the shared impulses
and modes of the two disciplines. Both architecture and photography frame the
world and human behaviour. How is space then shaped, framed and inhabited?
Campbell identifies two tendencies as the shared ground – fleeting moments of
wonder, and depictions of the larger social scene – which he discusses through
the work of photographers Rinko Kawauchi and Alec Soth. Scholarship on the
relationship between architecture and photography often sets one practice up as
more dominant, and therefore research methods and paradigms unquestionably
follow the prevailing discipline. However, the possibilities of an augmented capac-
ity for alertness and attentiveness, following Pierre Bourdieu’s (1992) ‘habitus’,
are argued by Campbell to recognize making and meaning considered equally.
Campbell contends that the history, theory and practice of photography is always
at play with architectural design and research practice in the photographs of John
Szarkowski and Stephen Shore.

The act and scope of seeing and reading photography is probed by London
born, Helsinki-based architectural photographer Marc Goodwin in the analy-
sis of his own, and other contemporary, commercial photography in Chapter 8
‘Architecture’s discursive space: Photography’. Goodwin’s comparative visual
analysis of the practice-based research finds that the acceptable norms of visualizing development in the global economy are for clear blue skies, uninterrupted interiors and symmetrical shots. Corporate clichés create and perpetuate significant visual capital flowing through the catalogues and advertisements of real estate agents worldwide. Commercial photographic image-making displays architectural design as white buildings, wooden floors, neat theatre interiors. The commodification (or commons) of visual data varies from open source to prescriptively copyrighted. However, production value is not simply economic, with the photographer working with a significant surplus of images and skilled judgement and invention. Goodwin’s visual research method responds to the corporate landscape in which he practices. Employing superficially similar modes of search categorizations on platforms such as Google images, and with reference to the everyday photographic practice of contact sheets, Goodwin extends his research practice to the assembly of alternative sets of images drawn from the surplus visible material only usually available to the photographer rather than the public. Goodwin argues, much as Lucas does, for a self-driven generous production of visual material through which to focus a ‘critical (commercial) gaze’.

Austrian photographer and educator, Aglaia Konrad, searches in her photographic praxis for the decision making on a political and economic level that has led to the built phenomena of rapid urbanization. She aims to uncover and translate these phenomena into an artistic vocabulary presented to the public for their critique. As an artist, she describes the encounter with the unexpected as entailing ‘more than noticing’, requiring active engagement with found conditions. Konrad’s Chapter 9 entitled ‘Desert cities’ shows a contextualized practice of photography, recalling Giedion’s foregrounding of the constituent facts of architecture through site visits. The research subject is vast in scope – sixteen cities in Egypt, located in an inhospitable, arid context. Konrad’s chapter in this volume notes that she does not want ‘to be an artist who also acts as an anthropologist, or a geographer, or a journaliste’. The perspective and positioning of her Desert Cities project is based on her evolved, iterative artistic photographic practice, a project of primarily making the invisibility of the decision making have some sort of visibility. The constructed images of Konrad’s visual essay are positioned in careful relation with each other, on image sheets that create a space and ground for reading and interpreting according to similarity, difference, scale and proximity. Konrad’s exposure constitutes what it means to live in the harsh conditions of the desert in these particular configurations of distinctly urban forms and embodies her own subjective gaze as an artist-photographer.

The capacity of photography to critique the ordering of society is evident in the exhibition ‘Separation’ that includes both interior and exterior subjects. Israel/
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1. Palestine-based urban researchers and curators of ‘Separation’, Shelly Cohen and Haim Yacobi, explain in Chapter 10 ‘Visual methodology on display: Taking photographs of Separation’ how the exhibition of commissioned photographs is reorienting Israeli architectural discourse from the aesthetic to political and social dimensions. As an indexical series of twelve large images of the separation wall in Jerusalem, the photographs show the materiality of the wall and question what spatial demarcation and boundary mean. Is spatial separation also social separation or are there slippages, reinforcements and resistances between these? Does the focus on the apparent material definitiveness of the spatial separation actually expose tactical possibilities for transgressions and unforeseen social relations? Through their attentiveness to the empirical, the evidence on the ground, and as Toffa explored in Chapter 3, Cohen and Yacobi engage in a form of critical visual decolonization and deterritorialization. What their visual research uncovers are different viewpoints, a sense of transcendence of the situation with hope, encounters with ‘the other’, yet a sense of fear. In the exhibition project, the photographers and curators work together, allowing space for varied practices and visual interpretations.

2. With a sensitivity towards the specificities of the production, dissemination and reception of architectural imagery and as an advocate for the abandonment of the role of the aesthetic connoisseur-interpreter of architecture, Lithuanian landscape architect Povilas Marozas pleads for reflection on different, and sometimes differing, ‘contextual’ visual positions. In Chapter 11 entitled ‘Visaginas: Looking at the town through photography’, Marozas reviews four different photographic interpretations of the twentieth-century Lithuanian town: as heroic communal efforts (by Vasilij Chiupachenko); everyday use of place (by Vitaly Bogdanovich); nostalgic documentation and disengagement in decline (by Gintaras Česonis) and empty atmosphere (by Nicolas Grospierre). Marozas does not simply read the photographs taken by the photographers as an archival source for research but sees that they have potential to be read as practice signifiers of place definition. With an architect-photographer’s gaze, he positions interpretation and situated research as a practice of performed photography, where his own photography is formulated as an active visual research method for reading place. Marozas’ theoretical apparatus is built from Victor Burgin’s materialist analysis of photography where practices of signification, explored through semiology, psychoanalysis and use-value involve the viewing subject. Donna Haraway’s (1988) embodied knowledge production, and particularly her approach to embodiment of vision informs Marozas’ visual research practice, alongside Irit Rogoff’s (2006) performative mode of production that activates situated knowledge and a wider community of knowing the self in relation to place.

3. Conventional art history scholarship positions the photographic image in the service of the written word. In Chapter 12, ‘Writing with pictures: Reconsidering
Aby Warburg’s Bilderatlas in the context of architectural scholarship, education and Google images’, UK-based artist and academic, Willem de Bruijn exposes an alternative visual research method – Warburg’s ‘pictorial argumentation’ in his ‘reading’ room, where images are part of a visual and spatial performance in the Bilderatlas. The pictorial motifs construct a mental thought-space, a mnemonic experience that becomes a history with its own pivot points and movement. De Bruijn offers an example of this by discussing the dancing maenad in Warburg’s Alberti Panel. As a visual research method, the Bilderatlas is an immersive, dynamic textual and visual script. De Bruijn scrutinizes the contemporary work of images through the Google search engine, as a source of such digital online atlases. He finds that there are similar possibilities for composition, narration and performance in Warburg’s and Google Image Search’s approaches. However, the algorithmic functions are shown to be limiting. Critical insertion or disruption of the linked search results are restricted, in contrast with the way that the dancing maenad acts in Warburg’s visual research. De Bruijn argues that writing with pictures will have to become common practice as much as a critical practice because it allows for exploring and developing new forms of architectural inquiry.

Photography has been the focus of much work in social science and cultural geography on visual research methods (Pink 2001, 2007; Rose [2001] 2012: 297–327). The visual construction of social life in the twentieth century, and of western cities in particular, has been entwined with histories of photography, the emergence of the photographer-author and the photographic image (Rose [2001] 2012: 11–15). Giedion’s lengthy re-working of his book, of the correspondences between text and images and between different visual elements in the space of the page, shows the complexity of visually editing and communicating an argument about contemporary architecture and cities. While the exchanges between architecture and photography are long-standing, there are shared impulses and modes (Campbell) that can be distilled and that may activate an external audience’s move from aesthetic to political concerns (Haim and Yacobi). The photographic practitioners included here (Goodwin, Konrad, Marozas) use their honed skills to inform and inflect their research practice and the questions that address underlying decision-making frameworks and implicit expectations of the commissioned (or not) series. The revisiting of Warburg’s innovative, immersive, dynamic, situated work and the photographic images in his collection (De Bruijn) is positioned as an overlooked form of pictorial argumentation. It has much resonance with our need to navigate the saturated online visual landscape skilfully and with stamina, as well as to construct new critical practices of ‘writing’ with pictures as a more inclusive, explicitly authored and interpreted approach in an algorithmic search era.
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Part 3 Film: Affinities and appropriations for researching contemporary culture

Figure 3: Preparation for Las Vegas deadpan film shoot, Las Vegas, 1968. Photo by LLVRS. Copyright Princeton University, School of Architecture.

‘You don’t think, you shoot’, she [Scott Brown] says. ‘Because by the time you’ve worked out with yourself why you want that thing, it’s gone’. (Scott Brown cited in Anna Fixsen 2016)

The idea of an affinity between architecture and film is implicit in both The View from the Road and Learning from Las Vegas. The potentially distracted – cinematic – gaze of the car driver confronts the roadway engineer with the task of framing and directing the automobilized observer’s perception of the city: ‘The cinema tells its story with dramatic changes in the separation between camera and actor, from close-up to long shot depending on what is being said. So it is on the city highway: the designer can decide what he wants to emphasize – a total skyline, a distinct character, a single landmark – and adjust the viewing distance accordingly. As in the cinema, contrasting distances will keep his sequences legible and eventful’ (Appleyard et al. 1964: 11). Engineer and architect become directors of the gaze. The films produced by Venturi and Scott Brown and their students in the Learning from Las Vegas Research Studio attest
to this attitude, which makes the visual survey of the existing city a prerequisite for architectural design.

(Stierli 2013: 184)

Another seminal book from the architectural canon in which the role of the visual is a practised, generative scholarship rather than illustrative of the written argument is Robert Venturi, Denise Scott Brown and Steven Izenour’s (1989) Learning from Las Vegas, first published in 1972. It was the result of the interdisciplinary Learning from Las Vegas (LLV) studio run in 1968 by the three architects at Yale. It involved spending ‘three weeks in the library, four days in Los Angeles, and ten days in Las Vegas’ with thirteen students – ‘nine students of architecture, and two planning and two graphics students’ (Venturi et al. [1972] 1989: xi). According to Stadler and Stierli (2015: 15), ‘The central goal was to obtain an understanding of the automobile-oriented city and to find an adequate image for it’. The design research method used by Venturi, Scott Brown and Izenour involves the architect changing their tools of representation from photography and analytical drawing to filmmaking (Figure 3). Instead of only sketching the urban landscape, they ‘picked up cameras and treated architecture from the perspective of appearance and phenomenon’ (Stadler and Stierli 2015: 9). Scott Brown et al. identify new techniques of film and video recording and analysis as vital to their research project on architectural signage experienced sequentially along the street. Some 40 years after Learning from Las Vegas was published, art and design theorists Hilar Stadler and Martino Stierli in collaboration with the artist Peter Fischli (2015) re-read the iconic photographs and films from the LLV studio. Beyond the more well-known influence of artist Ed Ruscha’s ‘deadpanning’ methodology of recording everyday life and landscapes, they locate the origins in a broader field of popular visual culture practice, such as movie-making. For instance, the video Las Vegas Electric (1968) – a four-minute car journey focused on the Las Vegas strip signage at night time, was structured sequentially so as to follow George Sidney’s opening sequence in his 1964 movie, Viva Las Vegas, starring Elvis Presley as racing car driver, Lucky Jackson.

Other researchers at the time, such as Reyner Banham in the film Reyner Banham Loves Los Angeles (1972), experimented with newly available media and technologies of the time to engage with American culture. Making some 125 short films from 1950 to 1982 – of which arguably the best known is their cinematic representation of the relative size of things in the universe, Powers of Ten (Eames and Eames 1977) – Charles and Ray Eames (2012) employed creative, sometimes advertising driven, filmmaking to explore architectural design, history, theory and narrative in interdisciplinary ways. Visuality was heightened through close looking and transference to the printed page and through large-scale multi-screen projection, which broadened spectatorship and the dissemination of their research findings.
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In Chapter 13 ‘Next to nothing: Psychogeography and the ‘film essay’, landscape researchers, Gavin Keeney and David Jones advocate observing nature and the world in their pedagogic practice that might inform more nuanced and less interventionist urban landscape making, such as the ‘Third Landscapes’ of Gilles Clément (2009). Critical of contemporary modern landscape design practice in Australia that they read as complicit with constructing a world denying nature, their proposition is for a more radical mode of filmic landscape design practice to be found in the artistically grounded ‘film essay’. When applied to environmental design disciplines, the ‘film essay’ acts as a critique of the usual rules and biases of project design development and presentation methodologies. Keeney and Jones argue that the ‘film essay’ can uncover new theoretical paradigms in the realization of built projects. Video investigations in design education studios examine post-industrial conditions and appropriate the methodological practice of the ‘film essay’ as counter to the conventional site master plan. The authors outline the origins of the ‘film essay’ as practised by Alexandre Astruc, Jean-Luc Godard, Chris Marker, Tacita Dean and Harun Farocki. In their chapter in this book, Keeney and Jones advocate filmic narrativity and playfully excessive, experimental storyboarding in landscape architecture pedagogy as a means to unsettle programmatic and methodological biases, where the landscape architecture image is not singular but ‘endlessly returns to the mélange’.

Film, as intimately tied to the experience of modernity, underpins Chapter 14 ‘Ciné-Cento: Eisenstein’s visual methodology and the space of film’. Irish-based academic, Nick Turner examines the Soviet revolutionary filmmakers, who used montage in film and film theory as a new way of seeing the world. He focuses on Sergei Eisenstein’s theoretical essays that explicitly employ visual research. Informed by Walter Benjamin and contemporary computer scientist Lev Manovich, Turner examines the role that space plays in Eisenstein’s (1925) most famous film, Bronenosets Potemkin (Battleship Potemkin) through a series of new visual methods, made possible by ongoing development in computing and software. The software allows the visual researcher to study film as one would study text and to explore spatial and architectural qualities. An observed lack of engagement in recent architectural history and theory research with new visual technologies may be limiting the capacity of knowledge generation and insight, in the way that Eisenstein’s own research methods clearly impacted on filmic and spatial practice and thinking. The capacity of computers to manipulate and analyse vast amounts of visual data including film sequences and individual shots opens up new ways of analytical and visual critique previously not possible.

Chapter 15, ‘Constructing an architectural phenomenography through film’ by Romanian and British educated researcher Ruxandra Kyriazopoulos-Berinde, focuses on how meaning and memory of home are communicated through
selected films by the Russian filmmaker, Andrei Tarkovsky. The phenomenographic methodology used in this research covers diverse textual and visual material. Phenomenography emerged in the 1970s as a qualitative research method focused on describing the various ways in which a phenomenon is experienced by a certain number of people (Bowden 1996: 49–66). Kyriazopoulous-Berinde’s chapter in this book contends that ‘In phenomenographic research, the products are a flux of descriptions that grasp into more depth the plurality of modes inscribed in the experience itself’. Ulrich Sonnemann’s (1954) term, phenomenography, was coined to differentiate from phenomenology and encompasses a description of experience that extends from the hermetic to the communicative and inter-subjective. As an empirical research method, phenomenography can address the qualitatively diverse ways that one phenomenon may be experienced by a number of people, seeking to establish thematic patterns, parallels and differences. While usually limited to textual and discursive media, Kyriazopoulos-Berinde re-reads and reclaims the term in her research to include audio-visual communication of experience and explains the steps of the phenomenographic method she uses to visually analyse the films. This leads to constructing categories of cinematic architectural experience.

Chapter 16, ‘Building an audio-visual portrait of Casa Malaparte: Performative research between site analysis and architectural and interior design’ by architectural researcher and performance artist, Popi Iacovou, works with an iconic building that has also featured in a number of films including Jean-Luc Godard’s (1963) Le Mépris. While the exterior view is well known, its private ownership means that the interior view is rarely accessible. Iacovou’s research acknowledges an embedded position, including her living in the house and filming her experience of it, which leads her to argue that her audio-visual research outputs should be understood as an ongoing ‘building script’. Her approach to research is to develop a strategy for ‘performing’ this ongoing project, using film, stills, archive material and mixed media animation in order to research the experience of living in Casa Malaparte. She conceives this as a hybrid visual method of occupational portraiture. As performative research, it aims to embody the past, present and potential life of Malaparte’s idiosyncratically designed house, analogous to the individually painted, drawn or photographed portrait of a person. Iacovou proposes that the unique role of the ‘architect-performer’ is that they are able to address the limits of architectural representation to include lived experiential and atmospheric dimensions of designed space, deliberately working with points of cinematic view, episodes and composed sound through collages of ‘found’ material.

Being outside the established set pieces of the architectural canon is the context of Chapter 17 ‘Exploring, explaining and speaking in tongues: Visual scholarship
and architectural education’ by South African-based architecture academic and writer, Lesley Lokko. It responds to the earlier question of what should architecture and architectural research concern itself with in a globalized, contested twenty-first century. In the context of post-2015 South Africa, this question is integral to the values embedded and transmitted in architectural education and is a vital part of the decolonizing of knowledge taking place across South African cities, institutions and young African students. Lokko works in the space of constructed tension between conventional ways of understanding architecture and more speculative means of investigation that respond and are directly generated from what is actually ‘on the ground’ in African cities. Particularly important is acknowledgement of the lack of written word in the majority of African cultures, where intimacy and performance (oral storytelling and community building) are more significant. ‘How to see’ what is going on in African cities is a fundamental and necessary, although complex, foundation for any research project that aims to re-think education curricula. Modes of exploring rather than explaining are paramount. It is in this gap that the visual research method uses – in, for instance, Lokko’s Eclectic Atlases films of Spintex Road in Accra – can have most effective visual, social and political agency.

Chapter 18 ‘The plasmatic image: Experimental practices between film and architecture’ by Danish academic Morten Meldgaard reflects on the term ‘transvisuality’ (Kristensen et al. 2015a) and explores ‘how’ contemporary film operates as part of post-industrial mediascapes and within fluxes of image production. With the advent of the digital revolution, architectural drawing has moved further away from its origin as a medium for reflective invention or formulation, and towards a higher degree of nondescript processing of information. This development has been lamented. But criticism tends to forget that it is exactly the present state of digital technology that allows us to invent new practices of cinematic architectural drawing, while aligning it with similar practices in cinema and beyond, that are able to grasp what Scott Lash (2010) has labelled ‘intensive culture’. As part of the Programme for Architecture, Space and Time at The Royal Danish Academy of Fine Arts School of Architecture, Meldgaard’s collaborative workshop, involving architects and filmmakers in the ‘Out of Field’ projects, attempts to disrupt established hierarchies between architectural drawing, moving image and written word. Deriving from artistic practice rooted in Theodor Adorno’s (1998: 107) approach to writing text as a ‘carpet of thought operations which create its own critical density’, Meldgaard’s pedagogic methodology foregrounds audio-visual drawing research practice rather than scientific method in search of new mixed media drawing practices.

Since its invention, film has been utilized as an appropriate method to represent and critique the modern condition. From Learning from Las Vegas’s filmic research
used to explore the controversially new condition of ‘The Strip’ (Figure 3), to Banham’s film essay tour that rewrites an architectural history of the everyday American city, to the Eames’s close scrutiny of zooming in and out of the earth and the things on its surface, the visuality of the medium constructs a contemporary gaze of modern life. The array of alternative uses of film as visual research methods, each devised for different research aims, show how the ‘taken-for-granted’ can be disturbed (Rose 2015). This continues with Lokko’s scrutiny of Accra and Iacovou’s inhabiting reality check of Casa Malaparte. Critiquing not just the visual image of modernity but its experience, filmic research methods can offer original analysis of films by reputable filmmakers (Turner on Eisenstein, Kyriazopoulos-Berinde on Tarkovsky). Learning film techniques as part of a hybrid design and research education can be an effective means of re-focusing the architect’s gaze on what might really matter now and what is truly contemporary ‘intensive culture’, not only what is inherited as disciplinary praxis and representation (Keeney/Jones and Meldgaard).

Part 4 Miscellaneous mixed modes and new media

Figure 4: Jelloslice Oil on prepared board. © Michael Webb © Archigram Archive.
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1. You are looking at part of a solidified cone of vision enclosing the landscape of
2. the Henley regatta. Most of the left hand part of the image has been obliterated
3. by cropping; furthermore the cone is truncated horizontally yielding a hyperbolic
4. top surface. I was the beholder representing what I saw, but I moved my easel
5. as it were; it matters not where. And as I did so voids began opening up behind
6. the objects comprising the landscape.
7.
8. The conic truncation means that these voids will erupt through the hyperbolic
9. top surface. For example, the void created by the large weeping willow tree
10. (centre right) near to the beholder, when it erupts through the surface, will
11. reproduce at larger scale the outline of the tree’s hanging tendrils. A second
12. willow further from the beholder will reproduce an outline where the increase
13. in scale is less.
15.
16. The vapid technological developments of new visual media, including computer
17. software that enables the exchange between analogue and digital to affect other
18. forms of conventional media, and the use of new technologies such as Virtual Reality (VR) or Artificial Intelligence (AI) and GIS/ space data, are leading to mixed
19. media techniques of ‘critical visuality’. From the most traditionally embodied
20. means of architectural representation, fixed in place (such as painting) – to network
21. distributed VR and AI, the potential combinations, inter-relations and dimen-
22. sions of visual research practice are expanding exponentially. Archigram member,
23. Michael Webb, experimented in the 1950s with technologies of the time-drawing,
24. painting, photocopy, collage. Now Webb’s paintings and drawings are the result
25. of a conversation informed by digital technologies. They also evidence a repertoire
26. of previous visual methods, that are practised daily and in a disciplined manner,
27. recalling Kulper’s ‘practised restraint’.
28.
29. Concerned with matters of space and architecture, Webb’s paintings and
30. drawings have become a project and an iterative practice in themselves. With
31. his Archigram collaborators, Webb shared a curiosity in and experimentation
32. with new techniques such as air-brush work – a conceptual precursor to flattened
33. computer rendering – and in re-thinking the limits of the normalized rules of
34. drawings in projects such as ‘Rent-A-Wall’ and ‘Drive-In House’. In the oil
35. painting for the ‘Cushicle’ project, Webb did not use a paintbrush but instead used
36. an exacto knife handle with a sponge taped on to it. His technique of consistent
37. sponged dabs builds up tones and smooth gradients as he explores the condition of
38. the pressure of air in the proposition. In his more recent work, such as his Jelloslice
39. painting (Figure 4) – started in 1987 but still ongoing – Webb has developed
40. a formalized technique of conceptual pixilation where the whole surface
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is composed of a series of micro-discs of individual colour hues, rearranged and correlated through an interpretation of Albert H. Munsell’s colour system (Munsell 1905). There is a deliberate relationship with the concerns of the drawing and the technique utilized to expose those concerns. The chapters in this section of the book evidence an interest in performative practices (Rose [2001] 2012: 10) of miscellaneous mixed modes and new media as generative of visual research methods. The formulations of work become hybridized, and to some extent are more open-ended and speculative than those of more historically tested methods such as drawing, photography and film.

Architecture’s relationship with hand and digital painting and client patronage of painterly artistry has been entwined in the western tradition since the Renaissance and this has transformed in recent times through engagement with rising neoliberal consumption, the digital ‘experience economy’ and the iconic building market. Originally associated with nineteenth-century visionary creators such as Joseph Gandy, John Soane and Augustus Pugin and as a medium of promised commission, painting delivered symbolic and cultural capital for architectural designers working mostly in nation states. Drawing and painting with ink, watercolour and brushed or washed surfaces continued through the Beaux-Arts tradition to measured drawing exercises and colour-coded production drawings. While painting has become a more marginalized practice in architecture, architects have become more global, wanting to reach wider markets, served by virtual and digital visual communication. Recent painters or painter-practitioners such as Madelon Vriesendorp, Will Alsop, Zaha Hadid, Steven Holl and Stan Allen actively use (hand or digital) painting through which to think and design. For Vriesendorp, Hadid and Alsop their paintings are visionary, generative explorations. For Holl and Allen, the paintings establish closer atmospheric and experiential imaginaries of projected architectural space. While ‘starchitects’ have used the media for the purposes of seducing clients to win projects, following traditions of earlier patronage relationships, architectural researchers explore hand and digital painting or other new digital technologies to formulate critical perspectives on architectural production and culture today. This critical work has shifted attention to a growing need for agency and activism; metaphysical visual expansion; and post-humanist explorations where the visual device augments or displaces the human body, to act as an enhanced version of visual architectural researcher – accomplishing things the human eye cannot, for instance at the microscopic or cosmological scale.

Chapter 19 ‘Visual agency: Participatory painting as a method for spatial negotiation’ explores how painting can engage stakeholders in the architectural process. In the pedagogical practice-led project by Polish/Dutch artist, Agnieszka Mlicka, the medium of painting enables groups, including architects, to work with the complexity and contingency of the social, economic and political dimensions of
urban space, through layering paint and colour. The aim of Mlicka’s pedagogical visual research is to move beyond representation of the site in order to negotiate space as a socially constructed environment of exchange. Arguing in her chapter for ‘a shift from the conventional view of painting as a vertical window on the world […] to a horizontal field of connections and encounters’, Mlicka, following on from the work of her mentor Jeremy Till, promotes and tests open-ended, participatory painting (rather than verbal discourse) through a series of research workshops. Unfamiliarity, plasticity and ambiguity are concepts that emerge. Willingness to establish a shared visual language that is unfamiliar to some of the workshop participants becomes significant in maximizing genuine participation. Several individuals painting on a large sheet also enables a plasticity of multiple style and tone. The open, ambiguous nature of the painterly group practice encourages affirmation of experience, deeper conversation and self-awareness of the participants’ own and others’ preconceptions or implicit intentions.

Mlicka’s participatory visual research practice has influenced the work of British researcher and architect, Tonia Carless, who practises performative painting and explores this as collaborative spatial research beyond the bounds of the architectural studio to critique gentrification. In Chapter 20, ‘just painting: Performative painting as visual discourse’, Carless identifies public space at the point of change as the space of ‘regeneration projects’ for capital investment. The research, which is both visual and spatial, examines local spatial politics and Henri Lefebvre’s (1974, 1991) notion of confrontation between abstract space and the space of use values. Fundamental to Carless’s position and explicitly activist practice is the notion that the aesthetic of the painterly practice is also social and economic. Through constructing counter-images to the developer’s, the temporally specific and en plein-air mode of painting – fluid in both practice and medium – challenges the rendered visualizations (also criticized by Blundell Jones in Chapter 1) that enable the space to be capitalized upon. The collaborative, interdisciplinary nature of the work aims to interrupt and challenge flows of image-economic capital to build alternative archives to the stores of consumerist accumulation, and to re-construct the value of public space. The observational, ethnographic and discursive aspects of painting (which Carless also mixes with digital panoramic experiments) can be utilized as critical architectural and urban research practices that build alternative qualitative material of cultural and social imagination and memory.

Paint as a material has been intertwined with colour theory in the nineteenth and twentieth centuries, often being the medium to constitute colour charts and other illustrative spectrum devices. Scottish architect Fiona McLachlan’s research in Chapter 21, ‘Visual heuristics for colour design’, notes the limits of colour charts as visual representations that do not capture metaphysical sensations or physiological and psychological experiences. McLachlan therefore establishes three
distinctive types of abstracted painted images that act as a visual heuristic device in research on the use of colour in architectural design practice. McLachlan examines visual indexing, two-dimensional building portraits and three-dimensional visualizations. Research collaboration with the Haus der Farbe in Zurich captures external façade colours of thousands of building facades in the city through observation and comparison. These are then constructed as a data-set of large colour swatches of hand-mixed paint. The two-dimensional building portraits simultaneously present original data and are a constructed interpretation of the findings. Recalling Rose’s caution to resist formalizing or objectifying visual images in constructive interpretation, attention to the ‘constructed codes of recognition’ (Bryson cited in Rose [2001] 2012: 57) and expectations of artistic production through viewing and dissemination is crucial. Painting’s transparently subjective character offers appropriate approaches to analyse and interpret the experiential qualities of designed space.

Investigating bodily vision in time and space, Chapter 22 ‘Digitally stitching stereoscopic vision’ by George Themistokleous focuses on the interaction between new digital technologies and an older device, Charles Wheatstone’s 1830s stereoscope. Through experimental design practice and interdisciplinary theoretical investigation Themistokleous asks questions about visual perception. A custom-made optical device, Diplorasis, appropriates and combines readings on embodied and disembodied vision. It enables an engagement with both the corporeal and virtual body. Themistokleous’ own visual misalignment, keratoconus, generates divergent images in his eyes and has triggered his research into the relationship between vision and normalized forms of visual representation, with conditions such as overlap of images, split vision, doublings and correctives. The interval between the body and its image is explored with reference to Maurice Merleau Ponty’s theories of phenomenology and Jonathan Crary’s history of optics, informed by the nineteenth-century scientific understanding of the physiology of human eyes. The research exploits the disjunction between experience and its cause. As a visual research method, the Diplorasis dismantles, divides, subdivides and reconfigures views for and by the body seeing the display and offers a new, assembled visuality.

What are the affective triggers or phenomena that shape experience, and how might tools that record multi-sensorial perceptual data be developed? British-based artist and academic, Mathew Emmett explores this in Chapter 23 ‘Audio-visual instruments and multi-dimensional architecture’. A ‘fused’ interpretation of visual, audio, haptic and kinaesthetic characteristics emerges as a complex process requiring mappings between communication medium and content. Emmett focuses on the audio-visual and the medium-content exchange that produces computational abilities derived from a site-specific condition. Instruments act as highly vigilant multi-modal sensors that can increase understanding of human-environment
cogency, situated cognition, spatio-sensory amplification and spatial intelligence.

Emmett’s visual research methodology operates between cognitive science and art practice. The graphic Cognitive Tope map, with a range of metrical layers and fields, was developed to collate combined physical and psychological recordings, drawing from theories and practices of situational analysis. Emmett creates a specific audio-visual and corporeal fieldwork tool with the researcher incorporated into the map as a research instrument, to pursue sophisticated site analysis and experimental design practice. Multi-dimensional architecture transforms the architects’ role to that of a progenitor of causal affect, and by an original enhanced language and research instrument set, the perceptual, cognitive and psychoactive dimension becomes the centre of architectural discourse.

Chapter 24 ‘Kaleidoscopic drawings: Sights and sites in the drawing of the city’ by Greek-trained academic Sophia Banou draws attention to collective and individual, conventional and impulsive, visual or scopic ‘regimes’ that construct the image and perception of the city. Our current condition of an increasingly saturated visuality has been shaped by many modalities of visual perception that have emerged since modernity. Banou shows that the encounter with the city relies on the malleability of visual perception as a process of knowledge through acts of representation, where the city emerges as the terrain of innumerable gazes. Visuality, described by Hal Foster as ‘sight as a social fact’ (1988: ix), is distinct from the singularity of subjective vision, and the scopic involves modalities of both looking and representing. The kinetic condition of the modern city is the starting point of Banou’s research. She asks how conventionally static architectural representation might accord with this by carrying the capacity not just to represent but also to look. Interplay and fusion between perception and representation is explored in the design research of the Kaleidoscopic City, an installation drawing, expanding notions of site-specificity into visual-specificity. The scientific device of the kaleidoscope transfigures the miscellaneous visual modes, media and devices used as embodied research methods in Part 4 of this book address architecture’s role in the delivery of symbolic, cultural, political or economic capital. There is an observable shift in the context of architectural production and culture from models of singular patronage and power to concerns with everyday culture and its appropriation of, or gleaning from, this capital. Rather than models of studio artistry and mastery, the contingent outdoor, the participatory and the collaborative can be directly responsive to the conditions and concerns of the marketization of space and architecture (Mlicka, Carless). Both Mlicka’s and Carless’s practice work towards heightened empathy, positing the potential for these to be relevant methodologies and practices for pedagogical and non-specialist activity through performance. Webb’s focus on technique,
conceptual pixellation and chromaticity is understood as visually performative. The limits of representation, the apparatuses of vision and visual techniques are also fertile grounds for nuanced research methods to depict, interpret, mediate and analyse the world (McLachlan on colour design and indices, Themistokleous on bodily vision). With trajectory towards experimental design practice and new insights in working with site, Emmett (between cognitive science and art practice) and Banou (between representation theory and urban studies) show the productive potential of trans-visual research practices.

**Conclusion: Visual research methods in architecture**

The emergence of studies in visual culture (elite and popular) has changed the research methodologies practised by many humanities disciplines. When visual culture studies emerged, it was met with both contestation and delight by different disciplines. For Art History, Rosalind Krauss (1997) presented the argument that any engagement with visual culture would only be to the detriment of a discipline because the notion of learning a discipline is ‘bound to knowing how to do something, certain skills’ through close reading of ‘works of art or works of literature’. For Krauss, engaging with visual culture would lead to de-skilling and should be resisted at all costs. Other social science disciplines are more optimistic about how engaging with visual culture can benefit their fields. Sarah Pink’s (2007, 2009) *Doing Visual Ethnography* and *Doing Sensory Ethnography* etc. stake out important ground in the field of anthropology and firmly situate visual research practice as a valid contribution to the expansion of ethnographic disciplinary knowledge through attentiveness to methodological and reflexive practices. In studies of Cultural Geography, Gillian Rose’s ([2001] 2012) *Visual Methodologies*, the key influence on our reading of visual research methods in architecture, focuses on the interpretation of visual materials to inform research. Rose and Divya Tolia-Kelly ed. (2012) illuminate the important relationship between the practice of critical visuality and materiality, done by humans with objects for media representation, or new media technologies or devices for drawing, painting, photographing or filming. Visual culture has to some extent been co-opted into architectural scholarship with positive and negative outcomes. If we consider visuality as a valid practice mode of/for humanities research, this book endeavours to set out some of the ways that design research might use visuality, with and without words or other media, as a tool and as a more explicit and precise method through which to undertake and disseminate research.

Our argument acknowledges that the architect’s gaze and hand differ from the artist’s, ethnographer’s or the cultural geographer’s gaze and hand because of the
politics of subject focus, modes of production and outputs within each discipline.

The architectural researcher or designer’s use of hand and digital tools or devices
for drawing, photographing, filming or more experimental visual modes and media
seeks out explicit and emergent architectural knowledge. This may take place
through: drawing as an open site of inquiry; photography’s potential to generate
new evidence in the visual construction of social, spatial, cultural and material
life; film’s original methods of analysis of the dynamic contemporary condition;
and painting and other digital media and device-based modes for performative
practice. The range of mixed media-specific research practices assembled in this
book resonate with, but expand in different ways, the evidenced value of visual
research methods in other disciplines (Rose 2015).

Interdisciplinary exchanges and potentially new means of interdisciplinary
research scholarship – between these visual media – can be beneficial to the archi-
tect’s design research practice if the architect uses them with specific purpose, either
on their own or with written commentary. In Travelling Concepts in the Human-
ites, Mieke Bal (2002: 37) argues that ‘the concept of focalization [...] which is
not identical to that of the “gaze” or the “look” [...] can help to clarify a vexed
issue in the relationship between looking and language’. Bal sees the exchange to
be inter disciplinary where focalization is used in relation to the visual domain,
not narratology – that is, it allows travel from what is visually focused upon to the
narrative and back again. This movement allows for a distancing from location
and from the subject of the picture itself: ‘What becomes visible in the movement
of the look’ (Bal 2002: 39).

W. J. T. Mitchell (1995) published Picture Theory to analyse the ‘pictorial
turn’ in contemporary culture, the widely shared notion that visual images have
replaced words as the dominant mode of expression of our time. Picture Theory
tried to analyse the pictorial, or [...] ‘visual’ turn, rather than to simply accept it at
face value. It was designed to resist received ideas about ‘images replacing words’
and to not ‘put all the eggs in one disciplinary basket, whether art history, literary
criticism, media studies, philosophy, or anthropology’ (Mitchell 2005: 2) and to
which we add architecture. Mitchell (2005: 47) argues poignantly:

The most far-reaching shift signalled by the search for an adequate concept
in visual culture is its emphasis on the social field of the visual, the everyday
processes of looking at others and being looked at. This complex field of visual
reciprocity is not merely a by-product of social reality but actively constitutive
of it. Vision is as important as language in mediating social relations, and it is
not reducible to language, to the ‘sign,’ or to discourse. Pictures want equal
rights with languages, not to be turned into language. They want [...] to be seen
as complex individuals occupying multiple subject positions and identities.
The making of visual research is inherently politically motivated and supports Mitchell’s (2005: 2) contention that ‘Images are not everything’ but ‘they manage to convince us that they are’. Images take on their own lives because they not only represent the world but go beyond even that which we experience. Roland Barthes (1977: 32) argues in ‘The rhetoric of the image’, in *Image Music Text*, that images are resistant to meaning, leaving their status as a ‘vague conception’. As ‘vague conception’, Juhani Pallasmaa (2005: 13) argues that ‘the preconscious perceptual realm, which is experienced outside the sphere of focused vision, seems to be just as important existentially as the focused image’. Pallasmaa (2005: 44) writes; ‘Images of one sensory realm feed further imagery in another modality. Images of presence give rise to images of memory, imagination and dream’. Images are open to individual and unique readings depending on the reader. This complex full-body relationship between writing, orality, aurality, making and looking at images, and experiencing visual knowledge in the world, affects not only the production and tools of architecture but also the production of architectural scholarship.

In ‘The power of images’ Mitchell (2005: 33) suggests that images are not powerless. The issue is to determine where their politics lie and how they operate. Politics surrounds the image-maker/researcher’s motives, their gender, race, class and age and how each has constructed their gaze. The object and purpose of visual research and their audience are key issues for architectural researchers to be attentive to, in order to understand position, limitations and agency, to validate marginal and overlooked positions. Architectural design research takes place every day in many practices but is often only legitimized within the university as scholarship. As G. James Daichendt (2012: 21) suggests, ‘The artist [and architect] outside the university is not necessarily concerned with the previous discussion regarding research’. Although the architectural design researcher working within higher education, whose audience is academic, is less free than the architectural design researcher working outside academic confines, working within the university can command more authority because of institutional affiliation and validation through recognized forms of academic scholarship.

The practice of architectural visual culture, with its range of visual literacy, is less valued by the academic community at present but this need not remain the case. It is argued here that no matter what medium or combination of media is used, ‘critical visuality’ allows space, its occupation, the body, and the temporal and social inter-relations to be given attention for architectural purposes. For this reason, visual research methods in architecture will, by their very nature, allow architecture to overlap with anthropology, ethnography, phenomenological philosophy, fine arts, photography, filmmaking, digital drawing, computation and mapping etc. Shared disciplinary preoccupations and methods of research allow architecture to create new interdisciplinary research. Knowing reflexivity...
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1. embedded in these practices might also lead to new and increasingly rigorous ways of ‘doing architectural scholarship’.
2. The precise ways in which visuality can be used in architectural research seem multifarious. By curating adjacencies in each part of the book across thematic threads of Techniques and Tools of Thinking, Practicing and Teaching Architecture and Visual Culture Research, we aim to expose the rich territory of knowledge production and agency of architectural research that traverses individual scholarship and design research practice, commission-based architectural production, studio pedagogies and formally framed funded research projects or studies. Creative visual research in architecture is intertwined with the tools and techniques used by different modes of visual representation. Shifting from using a drawing or a diagram to photography to filmmaking or to a performative painting or a digital visual device presents the design research architect or architectural scholar with modes of practice and effective research capacity specific to each medium. When chosen purposely and with care, these media can enhance the research and scholarship they contribute to in architecture and the rigorous design of spaces and places for our contemporary society. Just as architects began to use photography and film for research when they became more publicly accessible, it is envisaged that as VR and AI evolve and become more accessible they too will be experimented with as research tools. Visual Research Methods in Architecture exposes both how media appropriated by a discipline can be used with depth, originality and rigour, and also how emerging new technologies can initiate new modes of critical visual research practice.

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