"This highly accessible book provides a broad yet concise survey of techniques for understanding and designing the city at multiple scales and modes, from the organizational to the experiential."

Michael Robinson, Lecturer of Architecture, Rice University

DRAWING FOR URBAN DESIGN explores a wide range of ways to represent the city, from freehand sketching to sophisticated computer models. Architects and urban planners need to describe cities in the course of their work, be it through maps, diagrams, sketches, computer renderings, or models. This book provides an introduction to these techniques while explaining the processes associated with describing and designing urban environments—it is an invaluable visual grammar for representing the contemporary city.

Key features include:

- A range of drawing types from simple sketches to advanced CAD visualizations
- Step-by-step sequences demonstrating illustration techniques
- Masterplan case studies by renowned architects

LORRAINE FARRELLY is Deputy Head of the Portsmouth School of Architecture, UK. Her studio teaching focuses on the idea of the city and how it is read and interpreted. Her previous books include *Representational Techniques* and *Fundamentals of Architecture* (both 2007).

Front cover: CAD visualization of the Groninger Forum, The Netherlands, courtesy Zaha Hadid Architects
Back cover: Ink sketch courtesy University of Portsmouth

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LORRAINE FARRELLY

DRAWING FOR URBAN DESIGN

Portfolio Skills
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DRAWING FOR URBAN DESIGN

LORRAINE FARRELLY

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LORRAINE FARRELLY

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Contents

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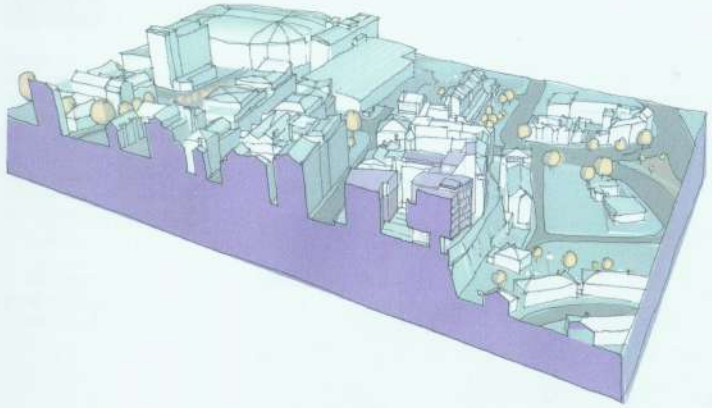
Conceptual field

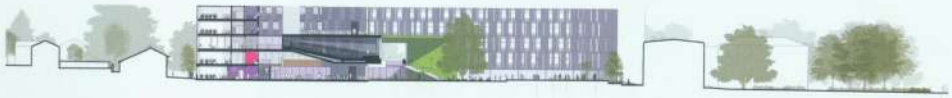
The term "conceptual field" refers to a development theory that establishes connections across different areas of knowledge.

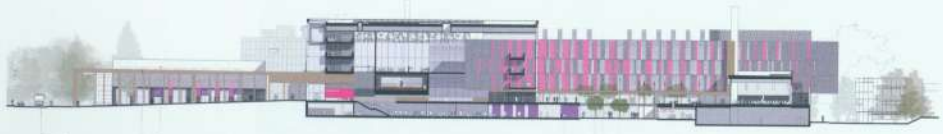
The drawings, sketches, plans, and sections that we use to depict cities can be combined in the form of either a measured drawing to scale or a sketch to make connections across an urban environment. The conceptual field slices through a city and within that slice reveals the concept of the city, and connections across and through it. It may reveal the connection between a shopping area and a residential quarter. There may be aspects of scale in a city, for example one area with high-rise buildings and another with low-rise buildings. A drawing of this sort identifies the key concepts and links them with a sketch, which may be annotated. This drawing can reveal ideas that cannot be understood from looking at a map.

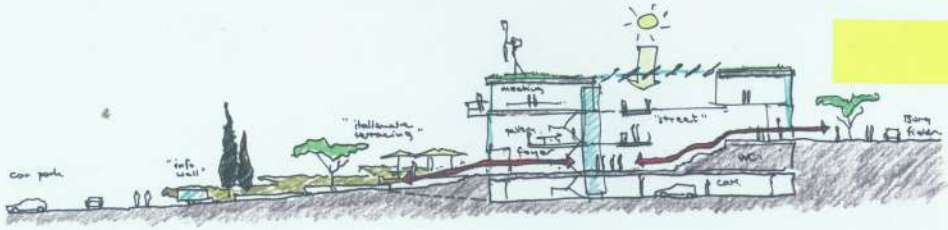
Below
This site section by Re-Format architects slices through a proposed residential scheme in Nottingham, UK, to reveal the relative heights of the buildings.

Bottom
This proposal for a university campus scheme by Design Engine cuts across a range of buildings to reveal the relationships between the structures and spaces across the site.









Top
This sketch of a church project in Guildford, UK, by Re-Format architects has been overlaid onto a CAD model of the site to suggest how the proposed scheme will relate to the surrounding buildings.

Above
A long section sketch drawing for the same project indicates the relationship between the scheme design and the urban context.

Below
Urban models such as this example (which is shown from several viewpoints) are useful for providing a contextual base in which individual schemes can be tested.

Models

An important consideration when designing a building or a larger-scale urban design project is the stage at which a model is most useful. The answer is that it is useful at all stages of the process. It is analogous to a drawing as a tool to assist in design. In the initial stages of understanding a site or a piece of the city, a model indicating scale and form can be quickly made to clarify what exists. It can then be used through to the final stage of the scheme, when it can serve as a presentation model, illustrating a fully developed idea.

Models are easily understood by those not trained as designers and they represent an important way of describing an idea holistically. In particular, they enable connections across cities to be easily understood, and larger systems such as streets, routes, and scale of buildings to be cross-related. A model does not have to be sophisticated; it may just need to communicate the idea three-dimensionally. Sometimes a quick cardboard model can suffice to express a proposal and to test thinking at a particular point. One can then move onto another model and another idea. A collection of models like this is part of the process of design and development.

As with any form of drawing or recording, the purpose of the model must be clear in advance. It may communicate spaces and forms. There may be aspects of connection or communication that need to be described. Once this is determined, then decisions about the technique and the scale of the model can be made.

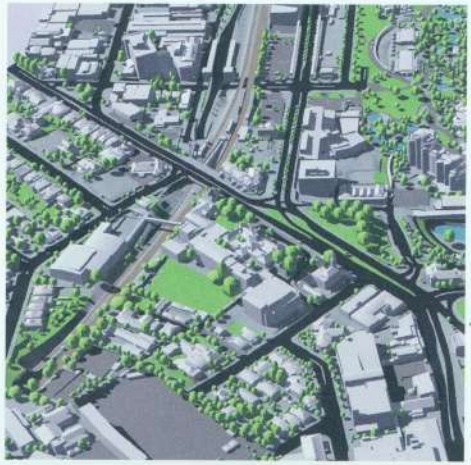
Physical and CAD modeling can describe a space as it is and can also be used to analyze a place in terms of its history and evolution. The physical model can be a working model which has certain elements as fixed points and design features that can be interchangeable. This allows for evolving ideas to be quickly understood and demonstrated.

Physical modeling is an effective way to represent the city as it is and as it will be. It is accessible, and it allows visual connections as well as an understanding of scale and how parts of the city relate to the whole. A large city model can be about massing, building shape, or form, or may be quite abstract. Many models are used as part of the design process as well as illustrating final ideas.

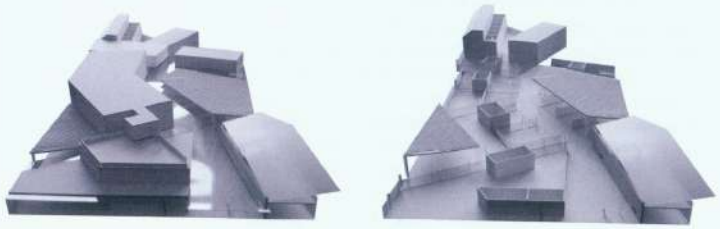
A number of cities now have a city model as the centerpiece of an exhibition to demonstrate their commitment to future development. Paris, France, has a city model at the Pavillon de l'Arsenal; London, UK, has one at the Building Centre. These models are an important aspect of explaining how the city is evolving and they allow all development to be placed in a broad context, reflecting the ever-changing nature of the city.

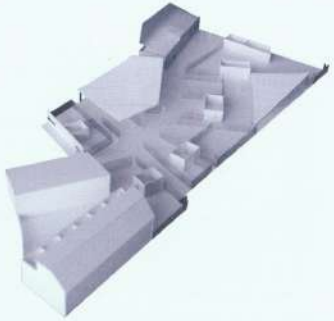
The model is the key communicating device for an urban idea. It has a presence and can be investigated and understood at many levels. It allows an understanding of massing, form, relative scales and heights, views, vistas, and connections. There is a personal engagement with a model which allows the viewer to feel part of the process of developing of the idea.

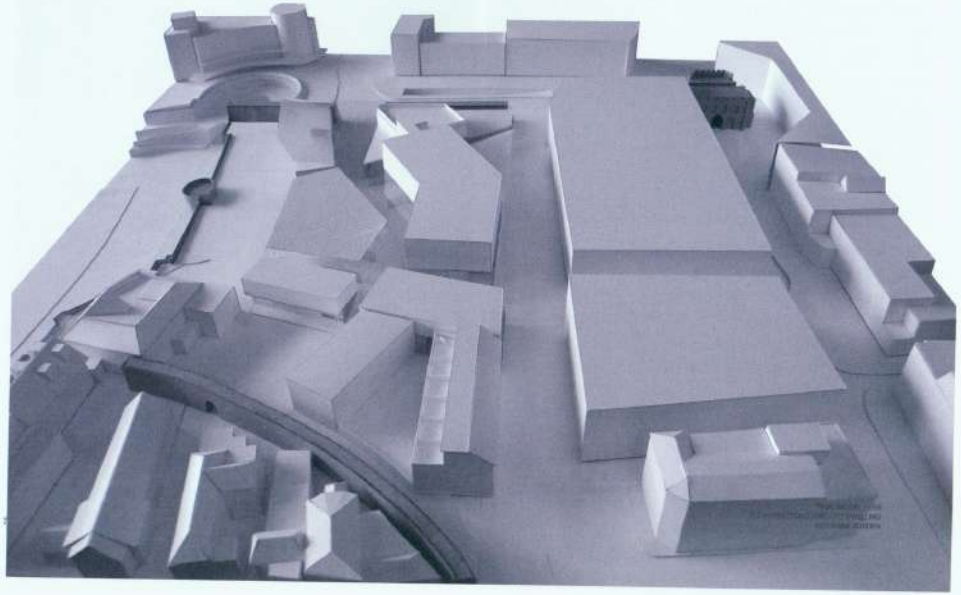
Below
Computer modelmakers Zmapping use a special software program to create interactive three-dimensional models of cities. Proposed schemes can be imported via other software program and viewed within these models. The images shown here are two views of a model of Brisbane, Australia, generated using digital map data.



Below
Black-and-white photography and shadowing has been cleverly used to bring out the massing of the urban context.







Materials for modelmaking

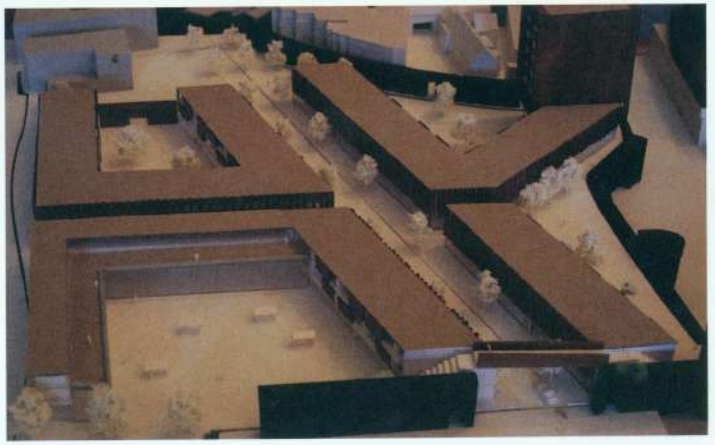
Physical models can be created out of anything from recycled cardboard to more sophisticated materials that need laser-cutting for precise results.

Most physical models need a base board that may be wood, such as plywood or particle board, or a lighter material such as plastic or card. More ambitious schemes may use other materials such as acrylic, metal, or plastic.

Urban models need quite a lot of thought to achieve differentiation between existing buildings and space and proposed buildings and space. Using different materials to highlight this distinction is helpful. A good solution is to have the main model made from a neutral material, such as white board, so it appears as a blank canvas, then to insert the proposed idea in a distinctively different material. The use of materials such as acrylic can also allow light to be used in a model to illuminate various parts of a city or a building.

Processes for modelmaking have developed enormously. A simple way to start a city model is to lay a scale map or plan onto a base board and add elements to it. City models can be made using many different cutting techniques; laser-cutting equipment can be employed to achieve precisely detailed buildings based on a digital drawing.

Foam core can be used to quickly achieve effects for a city model. Use a hot wire cutter to cut forms from various foam cores to produce simple block forms. Large-scale areas of the city can be realized quickly by using woodworking machines to cut simple blocks to suggest building forms.



Above
This model, made by Amodels, of S333's proposal for Bircham Park, Derriford, Plymouth, UK, shows the key concept: an urban structure founded on a landscape of courts, streets, and parks.

Left
Cardboard is an excellent material for producing sketch models.

Massing models

To understand the relative scale and size of buildings, massing models can be made using basic information to allow an overview of a city or part of a city. They describe the mass or volume of buildings in a place. This model type is particularly useful in the early stages of design to convey a sense of the density and scale of built form in a city.

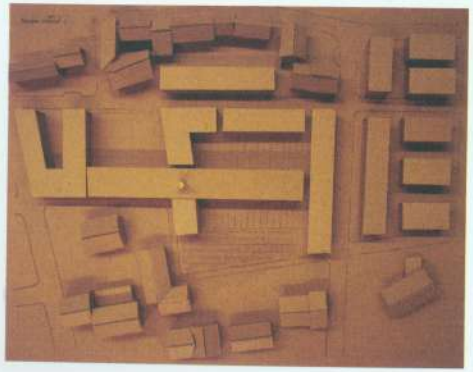
A massing model can be made as a CAD model using software such as Google SketchUp, or as a physical model using block materials such as wood or foam. It effectively reduces the city to its simplest form, a series of blocks.

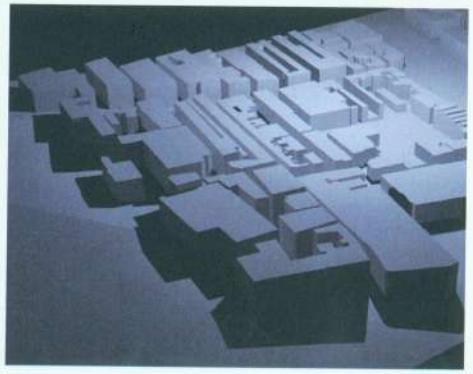
The massing model allows the size of the built form to be understood, and also allows consideration of the spaces between the built form. Such models can vary in scale; they usually relate to national survey maps and, depending on detail, may be at a metric scale of 1:1250, 1:1000 or 1:500 (see note on scales, page 186).

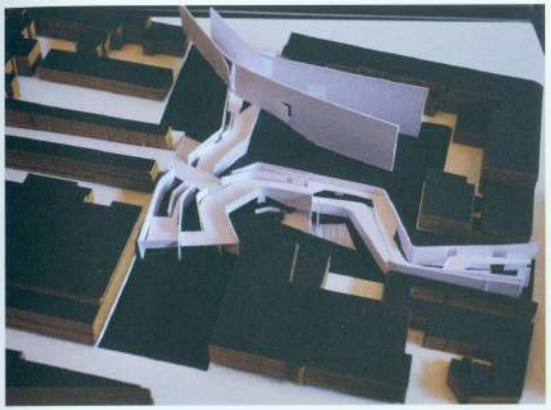
A massing model can be built initially to indicate existing massing on a site or in part of a city and later used to demonstrate a range of proposals for density or massing at the early stages of design to communicate the implications of scale and form.

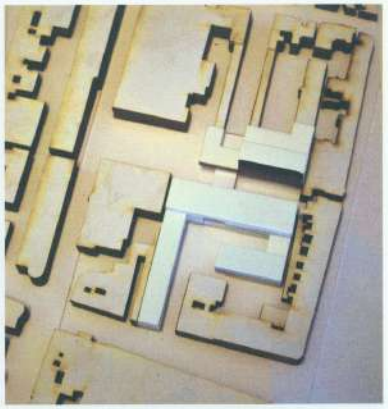
Below left
This image shows the use of block massing. The scheme is modeled in the same material as the surrounding context to create a uniform finish.

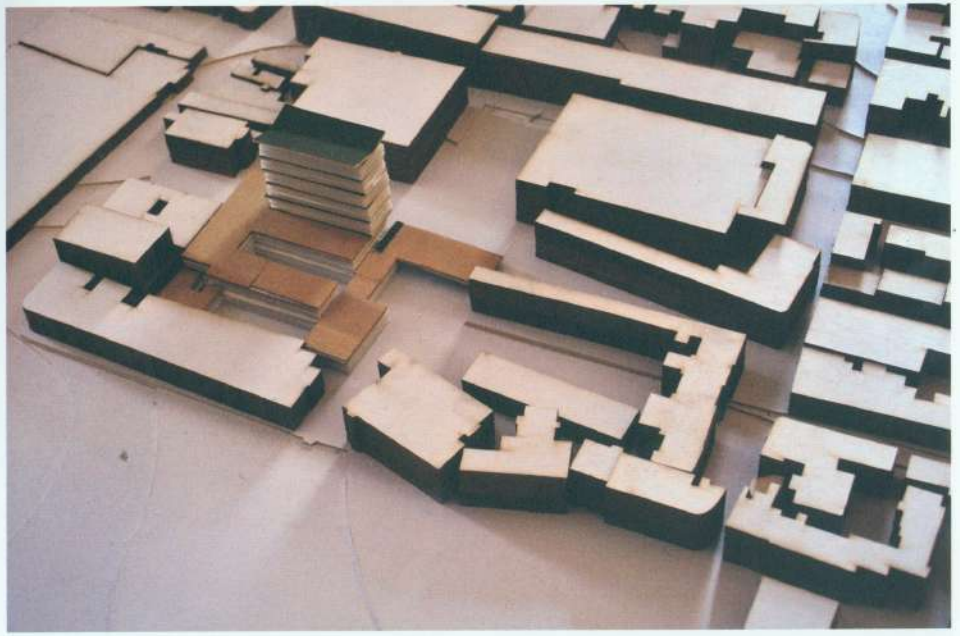
Below
CAD software can be used to create massing models for exploring the relationship of a proposed scheme to an existing site. This CAD model tests an idea for a project in a dense city site.







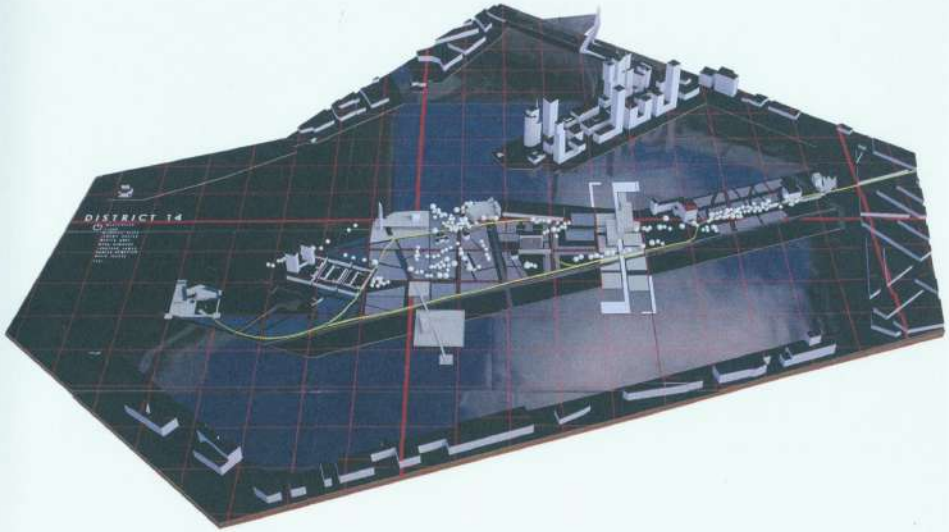




This page
These models describe a series of proposals for a project in Brighton. The scheme was modeled at a metric scale of 1:500 to investigate the impact of massing on the site.

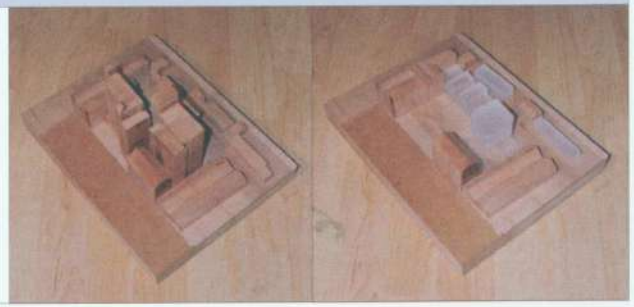
Opposite
Even in a monochromatic scheme the use of varying shades can bring analytical depth to a model.

Below
This urban model of a district of Amsterdam, the Netherlands, uses a grid as a reference and presents an abstract view of a site for redevelopment.



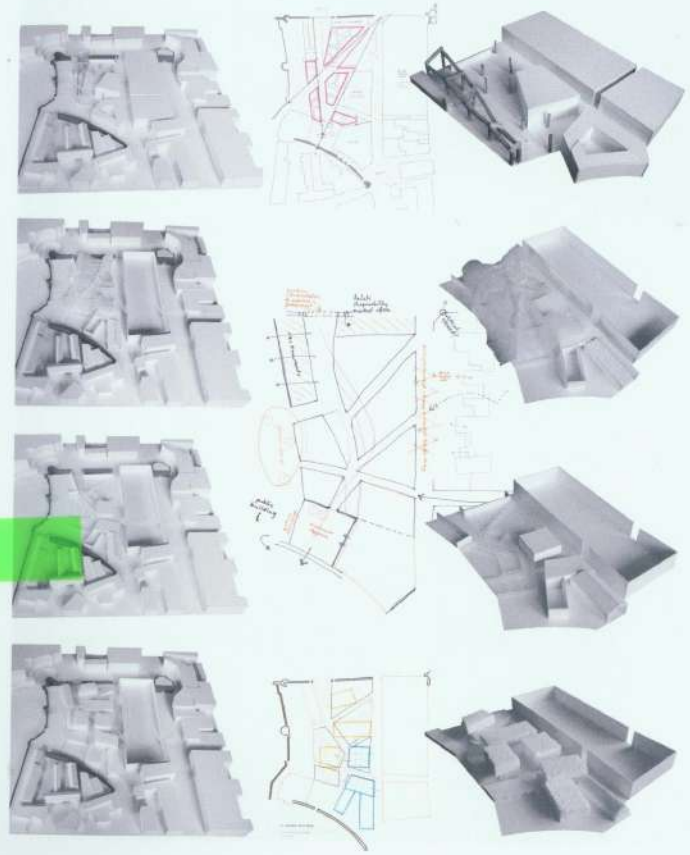
TIP MASSING MODELS

Using two different materials in a massing model makes it simple to differentiate between existing and proposed elements. In this example the proposed new development is represented by the opaque cast resin volumes on the far right.



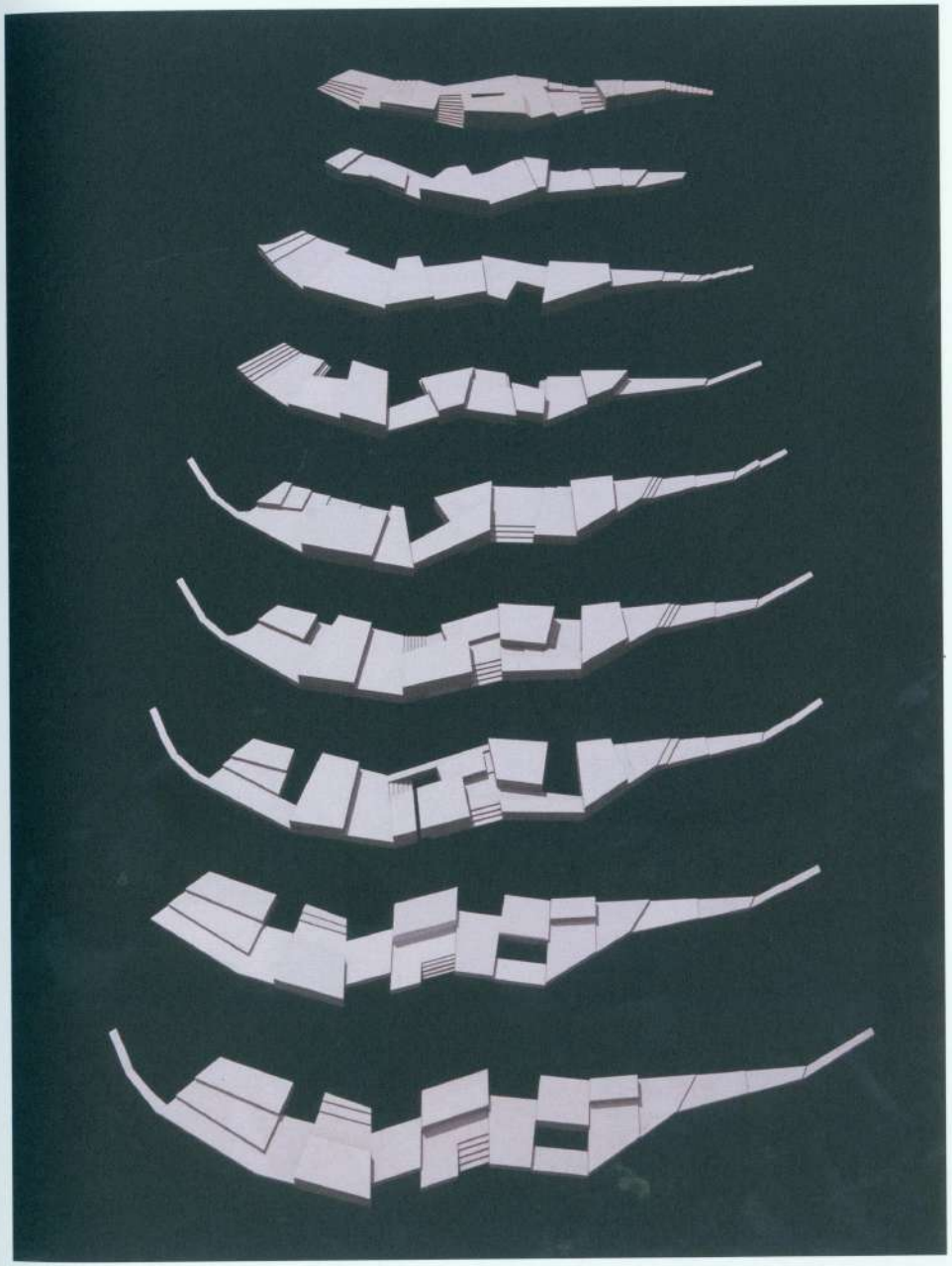
Process models

Designing a part of a city is a complicated process involving consideration of a number of factors and so it takes time to evolve. It is important to have a range of models which explain the development of the idea, how it has grown and shifted. These process models may connect to a site or a piece of the city. It may be that a particular model is photographed as it changes and these photographs are the recorded process, or that models made at various stages are retained. Early models will concentrate on form and the implication of that proposed form on the urban space around. These models are useful for the designer, but also explain the evolution of the design to the client, recording various thought processes and stages of decision-making.



Left
Sketch models can be useful for analysis. Certain elements can be changed as required and the results repeatedly photographed.

Opposite
Process models of the Cantera Cultural Center, Estepona, Spain, designed by David Chipperfield Architects.



TIP CLARITY

Less is more. Think about how to prioritize the images on the page. Which image do you want to be in focus? Cluttered presentation boards can detract from the power of the design and the quality of the drawings.

The image of the city

Designing cities requires different stages of thinking and a range of communication and representation skills. The city imagined concentrates on the representation tools needed to explain new interpretations of the city. These include design drawings, concept sketches, and models, both physical and computer-based.

The new city needs to be imagined as an exciting place of possibilities. The range of images needs to suggest new building forms, inspiring new spaces, and a future that is innovative and stimulating. Drawings and models need to be carefully planned and executed to convince an audience of the possibility of a new world of experience and architecture. New urban environments require a great deal of financial investment: the vision must be articulated so investors are persuaded to engage with the potential of the project.

The presentation needs to be accessible at many levels, with the initial concept connecting to existing contexts, simplifying complex social, physical, and ideological ideas. Physical models are important to communicate ideas about cities as they are the most easily understandable three-dimensional medium of communication. The most dramatic developments in CAD modeling make possible an impressive movie-like experience that blurs the boundaries between reality and fiction. This might include images that appear "virtually" real; fly-through models that allow a surreal experience of the city.

A vision of the city is the key ingredient in a presentation drawing. There can be an ambiguity between the idea of the drawing as a piece of art in itself and the fact that it is a tool used to promote a project. There are artist–architects who suggest the vision for the city through painting and drawing. These images are extremely important. Unless we can imagine and dream about the possibility of a new city, we will never make it a reality.

The details used in this black-and-white perspective image give it a realistic feel. The view through the trees, the use of figures to give a sense of scale, and the reflection of the buildings on the water suggest the proposed scheme is a "real" place in the city.

This dynamic visualization is animated by the introduction of people and realistic lighting.

Presentation drawing

The presentation portfolio is a prepared set of images that may include one key drawing, but will also have within it a range of complementary drawings that may describe concept, idea, process of thinking, details, and materials.

Careful consideration must be given to the intention of the presentation. Urban design schemes may need to communicate complex issues that explain social, economic, or cultural conditions.

The main urban idea may involve various contributors. A masterplan may be initiated by one architect or designer and other sections of a scheme may be subject to a competition, or other architects and designers may be involved. This section explores how pieces of the masterplan can then evolve to support the main framework for the city.

The final stage of the process requires presentation drawings. These may include illustrations that can inform the wider public, so the vision is accessible. Images such as set perspective views, bird's-eye views, or a series of connected images along an important route can explain a scheme clearly.

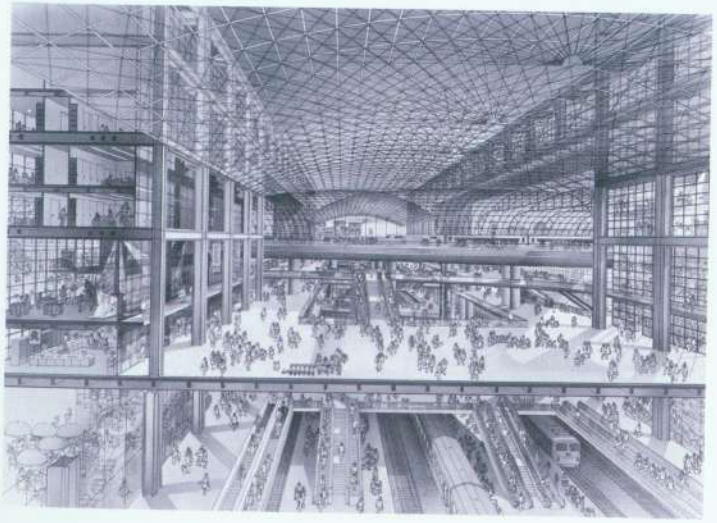
Perspective drawings and photomontage may be required: a new urban environment needs to be projected, to be advertised and understood to promote interest and investment. Photomontage images that create a suggested reality are important for this, as are collage images that present perspective views and interpretations of the city environment and streetscape.

A location map or diagram is important. This may be to scale or abstract but it should allow easy orientation. A more detailed map or plan may be part of the description of the site or project.

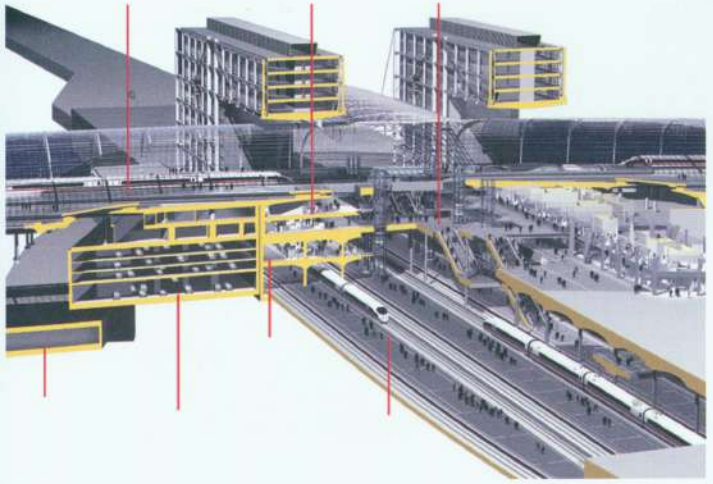
The organization of images needs careful consideration; there may be drawings at several scales to present a complex idea. Each presentation requires detailed thought. Planning a set of drawings should begin with sketches or scaled-down versions of the final images. Then the layout needs to explain the potential of the idea.

It is important to identify the audience for the presentation, to understand how they will read the project. A scheme may be intended to stimulate public interest and ideas. Or it may be for decision makers, planners, and investors and need to be more specific in terms of defined project areas and possibilities.

A scheme can be communicated with a PowerPoint presentation, which is a useful way to order information and to tell the story of a project. However, this should be incorporated with other media, including maps to locate the scheme and contextualize it, physical models to allow a clear three-dimensional representation of the idea, and perspective or other drawings that suggest a more personal interpretation of a view, activity, or experience.



Left
In this image of a project in Berlin, Germany, by gmp architects, line and tone are used to communicate ideas about the scheme's physical structure and the quality of light.



Above
This computer-generated perspective was created by S333 and Balmori Associates as part of the Pennine Lancashire Squared public space competition in the UK, and uses digital images of existing elements and CAD visualizations to create a hybrid drawing for the proposed scheme.

Left
This cutaway axonometric of a scheme in Berlin, Germany, by gmp architects (also shown opposite) efficiently conveys a large amount of information in one drawing.

TIP FONT

It is important to choose a suitable font when laying out your presentation boards. What does a font (classical or modern) say about your design? Look at advertisements and design magazines for inspiration.

Above
This subtle image uses varying opacities to emphasize the main features of the scheme.

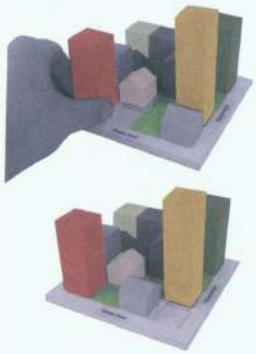
Opposite
A sketch section through a proposed residential scheme in Stead Street, London, UK, by Panter Hudspith architects gives a sense of scale and of the intended activity within the scheme, bringing the proposal to life.

Abstraction

When describing the city, initial ideas may be abstract rather than connected to real impressions or physical dimensions. The city can be interpreted metaphorically: as a tree, as a house with many rooms, as a machine—all of these ideas connect the city to theoretical schemes developed by architects and urban designers.

Abstract ideas can stimulate a new view of what the city could be. Many painters have described their impression of a city or place in terms of emotion, atmosphere, or experience. The abstraction may be a conceptual diagram that engenders an understanding of an initial idea. It may be a painting that is used to suggest an impression of a place. Or it could be a physical model that communicates an idea associated with the concept or interpretation of the place.

A city is an environment that is experienced, and sensory description can provide a new set of ways to understand and interpret it. This could be an evocation of movement through a city; it could be an impression of sound, or the use of color, or scenes from a film or theatrical interpretation of a situation or experience within a place. Each method of communication is valid. An abstraction of an experience can be an exciting way to explain a place creatively.



Left and far left
Home Town, one of a series of postcard proposals for urban regeneration by Metropolitan Workshop.

Right
Allies and Morrison's proposal for the Silver Hill urban regeneration scheme in Winchester, UK, uses an abstract massing model to pinpoint the proposed development site (bottom center of the image) within the surrounding context.

Below
Bloomtown, another of the postcard proposals for urban regeneration by Metropolitan Workshop.

CAD images and modeling

Digital cities can be built using digital mapping techniques which allow a city to be explored three-dimensionally, at street level, or at bird's-eye level—or any point between.

Software used by designers, urban designers, and architects to represent cities and buildings varies considerably in price. Some software interfaces with digital maps are available online. These maps can be imported into various software packages and then used as a base for a drawing or computer modeling.

Various software packages can be used to create three-dimensional environments that can be experienced as fly-through sequences or films. These allow the city environment to be represented as it exists and for proposals to be introduced into a model to understand the impact of a scheme or idea in terms of scale and form on its surroundings. For completely new urban projects, the CAD model can create a virtual environment that can be interrogated at street level or from above.

Below
This visual by Imaging Atelier of the James Simon Gallery to be built in Berlin, Germany, by David Chipperfield Architects shows the connection between the gallery and its immediate urban context.

Opposite, top
A digitally rendered visual by Imaging Atelier shows a view looking downriver toward the James Simon Gallery by David Chipperfield Architects.

Opposite, bottom
Imaging Atelier's digital image of the scheme for the Turner Contemporary visual arts center in Margate, UK, by David Chipperfield Architects.

The digital mapping of cities has been transformed by Google Earth software. This software creates an interactive map of the earth from aerial photography, geographic information system (GIS) data, and satellite imagery. It allows reproduction at various scales and can be used to create perspective views. This tool can be employed with other pieces of software to superimpose possible schemes, either as two-dimensional plans or in three dimensions to create block models over the existing map information.

GIS software is used to handle urban information and can simulate a variety of propositions. It can create data models of the city. These are not physical models, but abstractions of the real world using a set of data objects to support various analyses.

SketchUp software can be used in parallel with Google Earth. It is a three-dimensional modeling tool and can be used to create a massing model of a site or proposal.

CityCAD allows a quick sketch or diagram to be developed into a three-dimensional CAD model, identifying building types, massing, and landscape. Streetscape, by the same company, is a street-design tool that allows the user to make a section of a street as well as aiding an understanding of the impact of parking spaces, the height/width ratio in the street, and potential areas of shadow. It also interfaces with other software so that drawing files can be moved into the program and developed specifically to consider the consequences of an idea on the streetscape.

For the Short Hill housing development in the historic Lace Market area of Nottingham, UK, Re-Format architects created this three-dimensional CAD massing model. The proposed housing development is highlighted in white, while the surrounding context is colored gray.

A digital city model of Southampton, UK, created by City Vision Networks Ltd. The image features a scheme by Patel Taylor architects (highlighted in white at the top right of the image).

Software packages such as AutoCAD and ArchiCAD can create two-dimensional drawings and three-dimensional models. They can be used to interface with mapping systems such as Google Earth which can create maps and plans to any scale.

Rendering packages are software programs used to finish drawings and images, applying color tone, texture, and shadow to make a proposal or idea more realistic.

Rhino, by Autodesk, can create, edit, analyze, document, render, and animate images and data. It also provides the tools to model and document designs accurately so that they are ready for rendering, animation, drafting, engineering, analysis, and manufacture or construction.

Maya, also by Autodesk, is a three-dimensional modeling, animation, visual effects, and rendering software. It creates extremely photorealistic effects of texture, material, and spatial impressions.

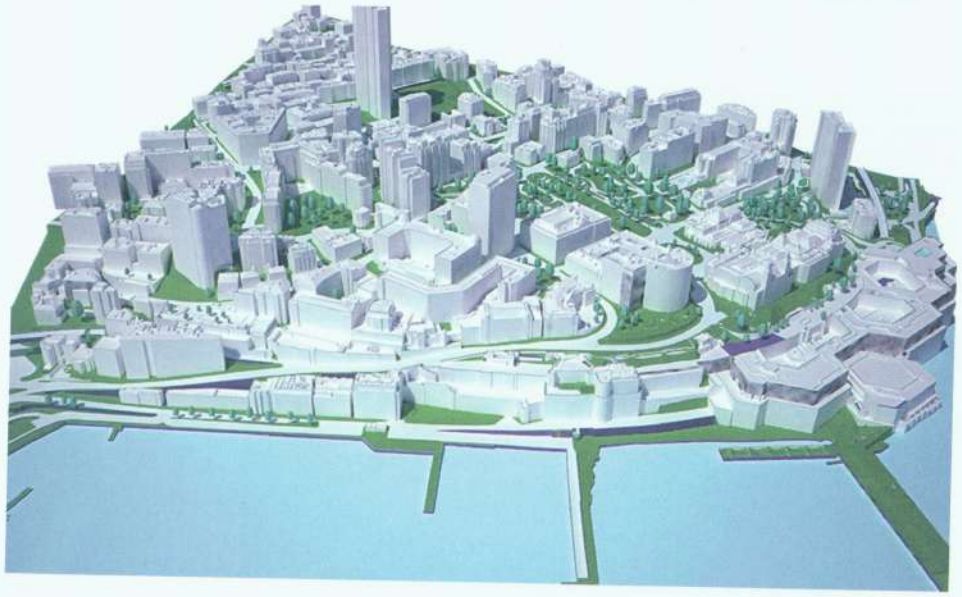
Adobe makes a suite of integrated software products (Creative Suite) which includes Photoshop. This is a program specifically designed for graphics editing. It is ideal for professional and amateur photographers and graphic designers, allowing images to be manipulated

easily. It can be used for editing images to very high standards and importing them from other software platforms, incorporating special effects such as backgrounds and textures, for television and film, as well as two-dimensional images and presentations.

Also part of Creative Suite, Adobe Illustrator manipulates digital images and is used for illustrations and layouts, producing well-organized and graphically impressive presentations using information from a range of media, drawings, photographs, and maps.

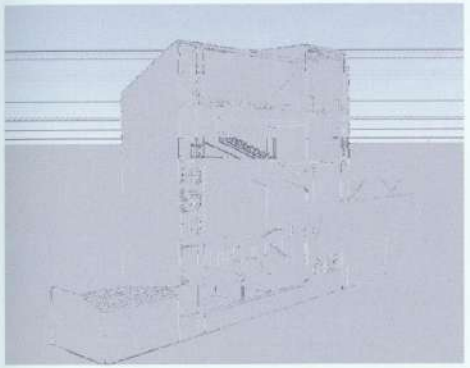
Space Syntax is a technique developed by Bill Hillier of the international consultancy Space Syntax, which is used in the analysis of buildings and cities. It is based on demonstrating the role of spatial layout in shaping patterns of human behavior including pedestrian activity, shopping, residential experience, and the working environment (for an illustration, see page 72).

A CAD model of Monaco by City Vision Networks. The model is interactive, allowing proposals to be inserted and viewed in a dynamic context.

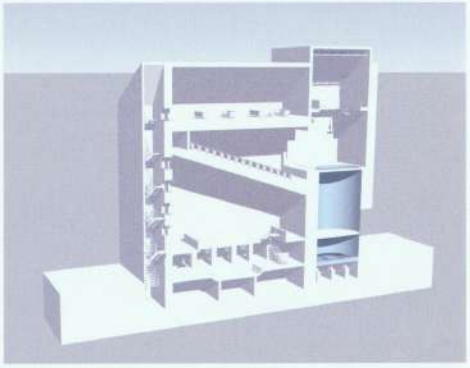


STEP BY STEP ENHANCING A THREE-DIMENSIONAL MODEL

A three-dimensional CAD model of a city or building can start as a framework and then be developed graphically to suggest more detail. This can be done by introducing shadow, within the model, followed by texture and detail. The image can also be incorporated into a digital photograph of an existing background using Photoshop.



1 Create a model with your three-dimensional modeling software. In this example, SketchUp is used.



2 Turn off lines and cast shadow within your three-dimensional modeling software. This will give a clearer image to export into Photoshop for enhancing.

3 Export the model into Photoshop as a JPEG file. Add and skew textures in Photoshop. Finally, adjust the opacity of the textures and add gradient shadows to give a sense of depth to your image.

Above and opposite
The images on these pages show parts of a three-dimensional computer model of London, UK, which was generated by Zmapping using specialist software. The model is interactive and proposed schemes can be placed within the model. Views can be generated from any level or height, so that, for example, the model can be seen as if from the air or at street level.

There are companies that create interactive three-dimensional models that can be used with a variety of software programs to create simulated images of city environments. Zmapping is one such company, which creates computer model cityscapes in three dimensions, ranging from a small area to the whole city environment. The model can show geographical features such as the terrain or ground surface to give a detailed interpretation of a city. The model can then be used as a background against which to model possible design ideas, or to create an animated fly-through or perspective views. It allows the designer to test the impact of proposed buildings on an area, from the effects of massing and form to the way a building affects vistas along streets or an entire skyline.

The basic information is collected from aerial photographs, which are then used in association with survey maps to produce detailed models. This modeling technique can be used with various software programs, including Maya, Vectorworks, AutoCAD, MicroStation, ArchiCAD, and SketchUp.

There are also three-dimensional versions of the models, which are interactive and designed to allow the viewer to move through and around the modeled environment.

Case study The city of the future

MVRDV, Vision 2030, Almere, the Netherlands

Client City of Almere

Architect MVRDV

The Dutch are experts at reclaiming land from the sea, which brings with it the potential for new cities. One of these, Almere, founded in 1984, is set to become the fifth largest city in The Netherlands. MVRDV are masterplanners for Vision 2030, a project that comprises all of Almere, as well as future development in surrounding areas, and incorporates OlympiaKwartier, a dense urban district masterplanned by Mecanoo architects in 2007. MVRDV's Jacob van Rijs has also been working on part of the OlympiaKwartier—which will incorporate a total of 54 acres (220,000m²) mixed-use development with public facilities—since 2008. Half of the buildings in MVRDV's part of the OlympiaKwartier development will be designed by 24 different architecture practices from Europe, Japan, and the United States, with each selected office designing two different buildings ranging from 5,382 to 53,820 sq ft (500 to 5,000 m²). The remaining half will be designed by MVRDV. The selection of architects consists of a varied group of offices, from young and conceptual practices to more established classic architects, intended to create true variety. The projects will be realized by experienced construction companies under the direction of MVRDV and Stadgenoot, the joint client to the architects.

By 2030, Almere expects to grow into a city with a stronger identity and a total of 350,000 inhabitants, which necessitates the building of 60,000 new homes—coordinated by the Municipality of Almere—and the creation of 100,000 new jobs for the expected 165,000 new inhabitants.

Vision 2030 marks a collaboration between MVRDV and the city to design a concept structure to accommodate this growth and development. The growth will take place in four main areas: Almere IJland, a new island off the coast in the IJ-lake; Almere Pampus, a neighborhood focused on the lake and open to experimental housing; Almere Center, an extended city center surrounding the Weerwater lake; and Oosterwold, an area devoted to more rural and organic urbanism. Together, the proposals form the framework that will determine the growth of the city until 2030. The design of IJland has been a collaboration between Adriaan Geuze of West 8 and William McDonough of McDonough + Partners. The concept for Almere is more than an urban masterplan. It has the potential to develop into an ecological, social, and economically sustainable city.

The axis

Today Almere is a city with 185,000 inhabitants, but 30 years ago it was an empty stretch of land reclaimed from the sea. The growth will preserve and further expand Almere's model of a polynuclear city. It will diversify the existing city by adding various densities, programs, and characters.

The vision consists of four major development areas, each with its own character, logic, and identity. These new developments are linked by an infrastructural axis which connects the metropolitan area of Amsterdam with Almere. The island known as Almere IJland is a connector between the two cities, literally as well as in economic and cultural terms. The axis then leads to Almere Pampus, the center of Almere and Oosterwold in the east, and will in future be extended to Utrecht.

Almere IJland

Together with Adriaan Geuze of West 8 and William McDonough, MVRDV worked on the design for a series of urban and nature-reserve islands, with the primary objective of improving water quality in the IJ-lake, an urgent priority. With the new railroad connection to Amsterdam, this also offers the potential for 5,000 to 10,000 homes, combined with the nature development. IJland integrates ecological and infrastructural interventions with facilities for living, working and recreation in a natural riparian environment. The island could host special programs in the future, for example as part of a possible Dutch bid for the 2028 Olympic Games.

Almere Pampus

This area will combine the feeling of a coastal town while accommodating 20,000 homes; all streets within Almere Pampus will lead to the boulevard along the lake. The existing maintenance harbor will be reused for leisure and floating villages, and there will be a new railroad station with a plaza at the coast.

Opposite
Masterplan by MVRDV showing OlympiaKwartier and the four main areas of the Vision 2030 development.

Below
A computer-rendered aerial perspective showing the IJland geographical context.

Bottom
A computer-rendered aerial perspective showing the OlympiaKwartier district. MVRDV's part of the masterplan is circled in white.

Above
This computer-rendered aerial view illustrates the landscape proposal within the masterplan.

Opposite
Computer-generated aerial view of Almere Pampus, a neighborhood that will focus on the lake and be open to experimental housing.

Following pages
An aerial photograph of the existing site has been used to create a computer-generated view of the scheme during the day.

Almere Center

The current center will grow until it extends to the south bank of Weerwater, turning the central lake into Weerwater-park and becoming in time the cultural and economic heart of the city. At the junction of the new axis—the superhighway and the railroad connection—the superhighway will be covered, enabling an adjacent development of up to 5,000 homes, offices, and public amenities. The central station will be developed into an economic hub and will be surrounded with new projects.

Almere Oosterwold

This large area in the east offers space for up to 18,000 new homes and a variety of functions such as business and retail centers. It will be developed following individual and collective initiatives, both small and large scale, with plots that are always surrounded by green spaces, urban agriculture, or local parks. The area will include sites for future development after 2030.

Vision for the future

Vision 2030 is not a blueprint but a flexible development strategy. Adri Duivesteijn, city councillor of Almere, explains: "It is a framework which can be filled in by the people of the city.

Case study Rebuilding a community

HOK, Arverne East, Rockaway Peninsula, New York, USA

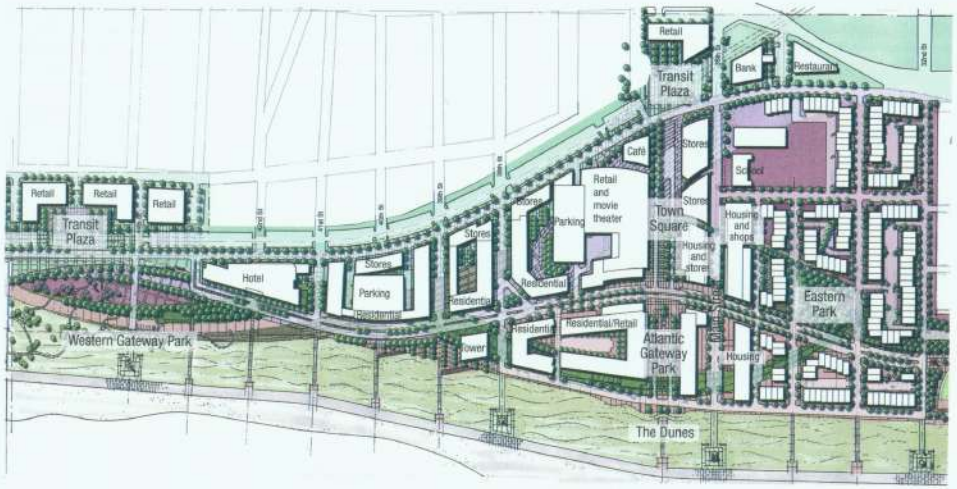
Total project area 47 acres (19 hectares)

Client Arverne East Development LLC

Architect HOK

Arverne is a neighborhood in the New York City borough of Queens, on the Rockaway Peninsula. It was initially developed by Remington Vernam, whose signature "R Vernam" inspired the name of the area. Arverne extends from Beach 56th Street to Beach 79th Street, along its main thoroughfare, Channel Drive. It has been vacant for many years and is being revitalized as part of the Arverne Urban Renewal project. It is a mid-rise development to address the context of mid- to low-rise buildings on the adjacent sites and along the waterfront.

The proposed development at Arverne East will be a vibrant mixed-use neighborhood with 500,000 sq ft (46,452 m²) of commercial space, offering integrated retail, entertainment, cafés and restaurants, community services, hospitality, education, and sports and fitness facilities. It will have a broad variety of community parks and open spaces for active recreation, greenways and cycle paths, playgrounds and small pocket parks, and preservation zones. A wide mix of housing types and sub-neighborhoods will be available to provide for the broadest range of living options, from studio apartments to housing for the elderly. Importantly, more than 50 percent of the 1,600 planned housing units will qualify as affordable homes. The masterplan takes its cues from the soft forms of the oceanfront environment, amplified by the use of local building and landscape materials throughout. The project will be based on the technology of sustainability



Illustrative masterplan of the development showing the proposed landscaping, residential, leisure, and commercial spaces.

Above
Perspective sketch views of Eastern Neighborhood Park.

Top
An aerial perspective axonometric sketch shows the masterplan in its oceanfront context.

Above
Perspective of the beach preserve area with apartment buildings beyond.

Right
A street scene in the town square.

and planned on the principles of transit-oriented design, allowing the community to live and work together harmoniously and travel easily to other areas of New York.

The new development is envisioned as a gateway to the ocean and a link to the surrounding community. The design creates strong physical and visual connections with the waterfront and uses the street network as a framework upon which to build a viable and sustainable community. Arverne East includes a town square around its subway station with retail and the Altheus Health and Sport Center.

Altheus will provide sporting venues and activities designed for the waterfront. Existing routes through the city will be enhanced with a series of open spaces that create a beachfront public realm where energy efficiency will be made a high priority.

Artist renderings have been used to give an impression of the activities that will be part of the proposal and to suggest the street scene. These images resemble watercolor sketch drawings. This approach to presentation makes the scheme easier to read. The drawings suggest a softness in the architecture and public spaces, and the relationship of buildings to landscape and public spaces is well described. The images were prepared by urban design and architecture firm Curtis + Ginsburg Architects and the architects HOK.

Case study The new Asian city

von Gerkan Marg and Partners, Lingang New City, China

Total project area 28 m² (74 km²)

Client Shanghai Harbor City Development (Group) Co Ltd/Bao Tieming

Architect gmp (von Gerkan, Marg, and Partners)

Design Meinhard von Gerkan

Accepting and overcoming the planning and building challenges posed by modern China, while working at a fast pace and at exceptional scales—as well as contributing both economically and culturally, the German practice von Gerkan, Marg, and Partners (gmp) has worked on more than 200 design projects in the past few years.

The current transformation of Chinese society, including the immense pressures caused by rural migration into the big cities and the increasing industrialization of rural areas, make it necessary to plan entire cities for the future. Near Shanghai, gmp's Lingang New City is an entirely new port city for 800,000 inhabitants. The central point of this "ideal city" is a circular lake, around which the different urban quarters are arranged in concentric rings, like waves rippling outward from a stone dropped into the water.

Lingang will be the largest laboratory for von Gerkan's ideas. In response to the observation that central business districts are often clusters of unimaginative buildings because only the most conservative institutions such as banking and insurance corporations can afford high-priced central real estate, Lingang has been arranged around a large, immovable space: an artificial lake.

The radial geometry includes a bathing beach and 12 public squares in the innermost ring, a circular light-rail system about 1,640 ft (500m) from the border, and narrow interior roads admitting only pedestrians and cyclists. The layout ensures that open space, fresh air,

Above
Computer-generated perspective of the lakeside promenade.

Opposite
The coloring of the masterplan indicates the large amount of landscaped space that will be provided for the city's occupants.