



*Architectural Intelligence* Jul 08 2021 Architects who engaged with cybernetics, artificial intelligence, and other technologies poured the foundation for digital interactivity. In *Architectural Intelligence*, Molly Wright Steenson explores the work of four architects in the 1960s and 1970s who incorporated elements of interactivity into their work. Christopher Alexander, Richard Saul Wurman, Cedric Price, and Nicholas Negroponte and the MIT Architecture Machine Group all incorporated technologies—including cybernetics and artificial intelligence—into their work and influenced digital design practices from the late 1980s to the present day. Alexander, long before his famous 1977 book *A Pattern Language*, used computation and structure to visualize design problems; Wurman popularized the notion of “information architecture”; Price designed some of the first intelligent buildings; and Negroponte experimented with the ways people experience artificial intelligence, even at architectural scale. Steenson investigates how these architects pushed the boundaries of architecture—and how their technological experiments pushed the boundaries of technology. What did computational, cybernetic, and artificial intelligence researchers have to gain by engaging with architects and architectural problems? And what was this new space that emerged within these collaborations? At times, Steenson writes, the architects in this book characterized themselves as anti-architects and their work as anti-architecture. The projects Steenson examines mostly did not result in constructed buildings, but rather in design processes and tools, computer programs, interfaces, digital environments. Alexander, Wurman, Price, and Negroponte laid the foundation for many of our contemporary interactive practices, from information architecture to interaction design, from machine learning to smart cities.

**Making Places for People** Mar 04 2021 *Making Places for People* explores twelve social questions in environmental design. Authors Christie Johnson Coffin and Jenny Young bring perspectives from practice and teaching to challenge assumptions about how places meet human needs. The book reveals deeper complexities in addressing basic questions, such as: What is the story of this place? What logic orders it? How big is it? How sustainable is it? Providing an overview of a growing body of knowledge about people and places, *Making Places for People* stimulates curiosity and further discussion. The authors argue that critical understanding of the relationships between people and their built environments can inspire designs that better contribute to health, human performance, and social equity—bringing meaning and delight to people’s lives.

Cloud Architecture Patterns Sep 29 2020 Do you need to learn about cloud computing architecture with Microsoft's Azure quickly? Read this book! It gives you just enough info on the big picture and is filled with key terminology so that you can join the discussion on cloud architecture.

*Universal Design* Mar 16 2022 A much-needed reference to the latest thinking in universal design *Universal Design: Creating Inclusive Environments* offers a comprehensive survey of best practices and innovative solutions in universal design. Written by top thinkers at the Center for Inclusive Design and Environmental Access (IDeA), it demonstrates the difference between universal design and accessibility and identifies its relationship to sustainable design and active living. Hundreds of examples from all areas of design illustrate the practical application of this growing field. Complete, in-depth coverage includes: • The evolution of universal design, from its roots in the disability rights movement to present-day trends • How universal design can address the needs of an aging population without specialization or adaptation to reduce the need for expensive and hard-to-find specialized products and services • Design practices for human performance, health and wellness, and social participation • Strategies for urban and landscape design, housing, interior design, product design, and transportation Destined to become the standard professional reference on the subject, *Universal Design: Creating Inclusive Environments* is an invaluable resource for architects, interior designers, urban planners, landscape architects, product designers, and anyone with an interest in how we access, use, and enjoy the environment.

**Ethics for Architects** Mar 24 2020 In this new *Architecture Brief*, *Ethics for Architects*, Thomas Fisher presents fifty case studies representing a broad range of ethical dilemmas facing today's architects, from questions regarding which clients to work for, to the moral imperatives of reclaiming building materials for construction instead of sending them to landfills. This timely book features newly relevant interpretations adapted to the pervasive demands of globalization, sustainability, and developments in information technology. Fisher's analysis of architecture's thorniest ethical issues are written in a style that is accessible to the amateur philosopher and appealing to professional architects and students alike. Thought-provoking and essential, *Ethics for Architects* is required reading for any designer who wants to work responsibly in today's complex world.

**Dictionary of Architecture & Construction** Sep 10 2021

*Architecture* Oct 19 2019 A superb visual reference to the principles of architecture Now including interactive CD-ROM! For more than thirty years, the beautifully illustrated *Architecture: Form, Space, and Order* has been the classic introduction to the basic vocabulary of architectural design. The updated Third Edition features expanded sections on circulation, light, views, and site context, along with new considerations of environmental factors, building codes, and contemporary examples of form, space, and order. This classic visual reference helps both students and practicing architects understand the basic vocabulary of architectural design by examining how form and space are ordered in the built environment.? Using his trademark meticulous drawing, Professor Ching shows the relationship between fundamental elements of architecture through the ages and across cultural boundaries. By looking at these seminal ideas, *Architecture: Form, Space, and Order* encourages the reader to look critically at the built environment and promotes a more evocative understanding of architecture. In addition to updates to content and many of the illustrations, this new edition includes a companion CD-ROM that brings the book's architectural concepts to life through three-dimensional models and animations created by Professor Ching.

**Problem Seeking** Dec 25 2022

**Librarians for the New Millennium** Jan 22 2020

**Architecting Modern Data Platforms** Aug 29 2020 There’s a lot of information about big data technologies, but splicing these technologies into an end-to-end enterprise data platform is a daunting task not widely covered. With this practical book, you’ll learn how to build big data infrastructure both on-premises and in the cloud and successfully architect a modern data platform. Ideal for enterprise architects, IT managers, application architects, and data engineers, this book shows you how to overcome the many challenges that emerge during Hadoop projects. You’ll explore the vast landscape of tools available in the Hadoop and big data realm in a thorough technical primer before diving into: *Infrastructure*: Look at all component layers in a modern data platform, from the server to the data center, to establish a solid foundation for data in your enterprise *Platform*: Understand aspects of deployment, operation, security, high availability, and disaster recovery, along with everything you need to know to integrate your platform with the rest of your enterprise IT *Taking Hadoop to the cloud*: Learn the important architectural aspects of running a big data platform in the cloud while maintaining enterprise security and high availability

*Architectural Research Methods* Jan 14 2022 A practical guide to research for architects and designers—now updated and expanded! From searching for the best glass to prevent glare to determining how clients might react to the color choice for restaurant walls, research is a crucial tool that architects must master in order to effectively address the technical, aesthetic, and behavioral issues that arise in their work. This book's unique coverage of research methods is specifically targeted to help professional designers and researchers better conduct and understand research. Part I explores basic research issues and concepts, and includes chapters on relating theory to method and design to research. Part II gives a comprehensive treatment of specific strategies for investigating built forms. In all, the book covers seven types of research, including historical, qualitative, correlational, experimental, simulation, logical argumentation, and case studies and mixed methods. Features new to this edition include: Strategies for investigation, practical examples, and resources for additional information A look at current trends and innovations in research Coverage of design studio–based research that shows how strategies described in the book can be employed in real life A discussion of digital media and online research New and updated examples of research studies A new chapter on the relationship between design and research  
*Architectural Research Methods* is an essential reference for architecture students and researchers as well as architects, interior designers, landscape architects, and building product manufacturers.

*Computer Organization and Design RISC-V Edition* Jul 28 2020 The new RISC-V Edition of *Computer Organization and Design* features the RISC-V open source instruction set architecture, the first open source architecture designed to be used in modern computing environments such as cloud computing, mobile devices, and other embedded systems. With the post-PC era now upon us, *Computer Organization and Design* moves forward to explore this generational change with examples, exercises, and material highlighting the emergence of mobile computing and the Cloud. Updated content featuring tablet computers, Cloud infrastructure, and the x86 (cloud computing) and ARM (mobile computing devices) architectures is included. An online companion Web site provides advanced content for further study, appendices, glossary, references, and recommended reading. Features RISC-V, the first such architecture designed to be used in modern computing environments, such as cloud computing, mobile devices, and other embedded systems Includes relevant examples, exercises, and material highlighting the emergence of mobile computing and the cloud

*Architectural Programming: Creative Techniques for Design Professionals* Jun 26 2020 Architectural programming is the key to successful design. It is the crucial process of gathering, organizing, and assessing a client's building-use information. This process includes design concepts and program objectives ... staff and employee projections ... current and future space requirements ... adjacencies and relationships ... equipment and utility requirements ... project cost ... and more. This unique book and diskette provide architects, engineers, facilities managers, corporate and institutional administrators, and others with an effective method for gathering and assessing data needed to successfully design virtually any type of building - from office towers and educational facilities to laboratories and medical facilities.

*Problem Seeking* Feb 27 2023 The classic programming guide for architects and clients—fully updated and revised Architectural programming is a team effort that requires close cooperation between architects and their clients. *Problem Seeking, Fifth Edition* lays out a five-step procedure that teams can follow when programming any building or series of buildings, from a small house to a hospital complex. This simple yet comprehensive process encompasses the entire range of factors that influence the design of buildings. This Fifth Edition of the only programming guide appropriate for both architect and client features new information related to BIM, integrated practice, and sustainable design when programming. Supplemented with more than 120 illustrations and diagrams updated for this edition, this indispensable resource provides revised technical information and faster, easier access to explanations, examples, and tools, including: Guidance on incorporating the latest technological tools when programming A primer on discounted cash flow analysis and net present value analysis Project statement examples organized by project phase and building type Useful techniques for data management, functional relationship analysis, and more

*Problem Seeking* Nov 24 2022 The classic programming guide for architects and clients—fully updated and revised. Architectural programming is a team effort that requires close cooperation between architects and their clients. *Problem Seeking, Fourth Edition* lays out a five-step procedure that teams can follow when programming any building or series of buildings, from a small house to a hospital complex. This simple yet comprehensive process encompasses the entire range of factors that influence the design of buildings.

*Scripting Cultures* Jul 20 2022 With scripting, computer programming becomes integral to the digital design process. It provides unique opportunities for innovation, enabling the designer to customise the software around their own predilections and modes of working. It liberates the designer by automating many routine aspects and repetitive activities of the design process, freeing-up the designer to spend more time on design thinking. Software that is modified through scripting offers a range of speculations that are not possible using the software only as the manufacturers intended it to be used. There are also significant economic benefits to automating routines and coupling them with emerging digital fabrication technologies, as time is saved at the front-end and new file-to-factory protocols can be taken advantage of. Most significantly perhaps, scripting as a computing program overlay enables the tool user (designer) to become the new tool maker (software engineer). Though scripting is not new to design, it is only recently that it has started to be regarded as integral to the designer's skill set rather than a technical speciality. Many designers are now aware of its potential, but remain hesitant. This book treats scripting not only as a technical challenge, requiring clear description, guidance and training, but also, and more crucially, answers the question as to why designers should script in the first place, and what the cultural and theoretical implications are. This book: Investigates the application of scripting for productivity, experimentation and design speculation. Offers detailed exploration of the scripting of Gaudí's final realised design for the Sagrada Família, leading to file-to-factory digital fabrication. Features projects and commentary from over 30 contemporary scripting leaders, including Evan Douglis, Marc Fornes, Sawako Kaijima, Achim Menges, Neri Oxman, Casey Reas and Hugh Whitehead of Foster + Partners.

*Sun, Wind, and Light: Architectural Design Strategies* Dec 21 2019 An updated guide to designing buildings that heat with the sun, cool with the wind, and light with the sky. This fully updated Third Edition covers principles of designing buildings that use the sun for heating, wind for cooling, and daylight for natural lighting. Using hundreds of illustrations, this book offers practical strategies that give the designer the tools they need to make energy efficient buildings. Hundreds of illustrations and practical strategies give the designer the tools they need to make energy efficient buildings. Organized to quickly guide the designer in making buildings respond to the sun, wind and light.

**PCI Express System Architecture** Apr 24 2020 •PCI EXPRESS is considered to be the most general purpose bus so it should appeal to a wide audience in this arena. •Today's buses are becoming more specialized to meet the needs of the particular system applications, building the need for this book. •Mindshare and their only competitor in this space, Solari, team up in this new book.

*A Primer on Criminal Law and Neuroscience* Dec 01 2020 (temporary: from the Introduction) As a result, the John D. and Catherine T. MacArthur Foundation decided to support a three-year multidisciplinary initiative, The Law and Neuroscience Project, that created teams (termed "research networks") of lawyers, neuroscientists and philosophers to explore the appropriate conceptual relation of

neuroscience and law and to engage in empirical investigations that would demonstrate the specific relevance of neuroscience to law. Although there was a substantial range of opinion among Project participants about the potential relevance of neuroscience to criminal law, it became apparent that a basic primer or handbook that set forth a statement of the relation as the authors understand it at present would be enormously helpful to practicing lawyers, judges, and legal policy makers as they increasingly were confronted with claims based on neuroscience information. The goal is to provide accurate information and to clarify the basic questions that will inevitably arise so that the criminal law can avoid confusion and mistakes based on inadequate understanding.

**Programming for Health and Wellbeing in Architecture** Dec 13 2021 Programming for Health and Wellbeing in Architecture presents a new approach to architectural programming that includes sustainability, neuroscience and human factors. This volume of contributions from noted architects and academics makes the case for rethinking the practices of programming and planning to incorporate evidence-based design, systems thinking and a deeper understanding of our evolutionary nature. These 18 original essays highlight how human and environmental health are closely related and should be incorporated as mutually reinforcing goals in every design project. Together, these chapters describe the framework for a new paradigm of building performance and design of the human experience. Programming—the stage at which research is conducted and goals established—provides an opportunity to examine potential impacts and to craft strategies for wellbeing in new buildings and renovations using the latest scientific methods. This book expands the scope of the programming process and provides essential guidance for sustainable practice and the advancement of wellbeing in the built environment for architecture and interiors students, practitioners, instructors and academics.

**Programming Cultures** May 06 2021 Programming Cultures explores the relationship between software engineering and the various disciplines that benefit from new codes and programming tools. The title focuses on a range of practices including: aviation design, urban infrastructure simulation, Hollywood special effects, nanotechnology, mathematics and architecture. In terms of building design, Programming Cultures specifically examines the potential of new software designed to solve specific visualization and data processing problems from within the profession. The book allows architects to become more familiar with programming rather than basing their work on appropriated systems designed for non-architectural applications (Maya, 3D Studio MAX etc.) and will become a primer for an emerging culture of students; academics and young professionals that are starting to outgrow the predetermined structure of today's most popular modeling and animation packages.

**Programming for Design** Feb 15 2022 Quickly master architectural programming concepts, skills, and techniques In the essential discipline of architectural programming, the ideas of philosophy, sociology, anthropology, psychology, and history find their focus in the realities of site conditions, budgets, and functionality. Author Edith Cherry vividly demonstrates in this inspiring tutorial that the programming process not only helps architects avoid the endless design revisions occurring in most projects, but that it is also the key to designing for optimal form and function. Programming for Design lets you rapidly acquire the knowledge and skills needed to successfully program a moderate-size space. Rather than simply describe basic principles and practices, this straightforward guide helps you master architectural programming by actually doing it. Professor Cherry identifies the central issues involved and describes the skills needed to work with clients to identify problems to be solved by a design effort. Emphasizing designing for people, she offers proven strategies and techniques for goal setting, information gathering and analysis, concept development, program synthesis, and communicating with clients. The book is also devoted to practical applications. The author walks you step-by-step through a project of your own choosing, providing numerous examples and four case studies within each step that vividly illustrate how to effectively gather, process, and communicate information. Programming for Design features more than 200 supporting illustrations, diagrams, and sidebars appearing throughout the text, reproducing pithy sayings by such far-flung figures as Plato and Yogi Berra, Einstein and Lao Tzu, that help relate the programming process to other disciplines.

*A Software Architecture Primer* Apr 17 2022 The authors present a fresh, pragmatic approach to the study of software architecture. This edition contains a series of chapters that introduce and develop an understanding of software architecture by means of careful explanation and elaboration of a range of key concepts. (Computer Books)

Architectural Programming Jun 19 2022

**Game Development Patterns with Unity 2021** Oct 31 2020 Solve your programming woes in Unity with practical design propositions Key Features Gain a comprehensive overview of Unity engine architecture and coding model Build a complete racing game using software design patterns and understand how to implement them in Unity Download the source code of the complete prototype demonstrating each of the software patterns used Book Description This book is written for every game developer ready to tackle the bigger picture and start working with advanced programming techniques and design patterns in Unity. Game Development Patterns with Unity 2021 is an introduction to the core principles of reusable software patterns and how to employ them to build components efficiently. In this second edition, you'll tackle design patterns with the help of a practical example; a playable racing game prototype where you'll get to apply all your newfound knowledge. Notable updates also include a game design document (GDD), a Unity programming primer, and the downloadable source code of a complete prototype. Your journey will start by learning about overall design of the core game mechanics and systems. You'll discover tried-and-tested software patterns to code essential components of a game in a structured manner, and start using classic design patterns to utilize Unity's unique API features. As you progress, you'll also identify the negative impacts of bad architectural decisions and understand how to overcome them with simple but effective practices. By the end of this Unity book, the way you develop Unity games will change – you'll adapt a more structured, scalable, and optimized process that will help you take the next step in your career. What you will learn Structure professional Unity code using industry-standard development patterns Identify the right patterns for implementing specific game mechanics or features Develop configurable core game mechanics and ingredients that can be modified without writing a single line of code Review practical object-oriented programming (OOP) techniques and learn how they're used in the context of a Unity project Build unique game development systems such as a level editor Explore ways to adapt traditional design patterns for use with the Unity API Who this book is for This book is for Unity game developers who want to learn industry standards for building Unity games. Knowledge of the Unity game engine and programming in the C# language is a must, so if you're a beginner, try our Learning C# by Developing Games with Unity 2021 handbook instead.

FPGA Architecture Oct 11 2021 Reviews the historical development of programmable logic devices, the fundamental programming technologies that the programmability is built on, and then describes the basic understandings gleaned from research on architectures. It is an invaluable reference for engineers and computer scientists.

**Site Planning and Design Handbook, Second Edition** Jun 07 2021 Essential site planning and design strategies, up-to-date with the latest sustainable development techniques Discover how to incorporate sound environmental considerations into traditional site design processes. Written by a licensed landscape architect with more than 20 years of professional experience, this authoritative guide combines established approaches to site planning with sustainable practices and increased environmental sensitivity. Fully revised and updated, Site Planning and Design Handbook, Second Edition discusses the latest

standards and protocols-including LEED. The book features expanded coverage of green site design topics such as water conservation, energy efficiency, green building materials, site infrastructure, and brownfield restoration. This comprehensive resource addresses the challenges associated with site planning and design and lays the groundwork for success. Site Planning and Design Handbook, Second Edition explains how to: Integrate sustainability into site design Gather site data and perform site analysis Meet community standards and expectations Plan for pedestrians, traffic, parking, and open space Use grading techniques to minimize erosion and maximize site stability Implement low-impact stormwater management and sewage disposal methods Manage brownfield redevelopment Apply landscape ecology principles to site design Preserve historic landscapes and effectively utilize vegetation

**Just Enough Software Architecture** Jan 02 2021 This is a practical guide for software developers, and different than other software architecture books. Here's why: It teaches risk-driven architecting. There is no need for meticulous designs when risks are small, nor any excuse for sloppy designs when risks threaten your success. This book describes a way to do just enough architecture. It avoids the one-size-fits-all process tar pit with advice on how to tune your design effort based on the risks you face. It democratizes architecture. This book seeks to make architecture relevant to all software developers. Developers need to understand how to use constraints as guiderails that ensure desired outcomes, and how seemingly small changes can affect a system's properties. It cultivates declarative knowledge. There is a difference between being able to hit a ball and knowing why you are able to hit it, what psychologists refer to as procedural knowledge versus declarative knowledge. This book will make you more aware of what you have been doing and provide names for the concepts. It emphasizes the engineering. This book focuses on the technical parts of software development and what developers do to ensure the system works not job titles or processes. It shows you how to build models and analyze architectures so that you can make principled design tradeoffs. It describes the techniques software designers use to reason about medium to large sized problems and points out where you can learn specialized techniques in more detail. It provides practical advice. Software design decisions influence the architecture and vice versa. The approach in this book embraces drill-down/pop-up behavior by describing models that have various levels of abstraction, from architecture to data structure design.

**Architectural Programming and Pre-design Manager** Aug 21 2022 In this book, first published in 1999, Hershberger presents architectural programming and pre-design management in a clear, detailed manner. With numerous examples and illustrations from both his and his colleagues' experience, he shows the reader step by step how to use the techniques of architectural programming, set values, resolve issues, apply tested methods, and leverage skills when working with clients. This title will be of interest to students of architecture.

**Computing the Environment** Aug 09 2021 Computing the Environment presents practical workflows and guidance for designers to get feedback on their design using digital design tools on environmental performance. Starting with an extensive state-of-the-art survey of what top international offices are currently using in their design projects, this book presents detailed descriptions of the tools, algorithms, and workflows used and discusses the theories that underlie these methods. Project examples from Transsolar Klimaengineering, Buro Happold's SMART Group, Behnisch Behnisch Architects, Thomas Herzog, Autodesk Research are contextualized with quotes and references to key thinkers in this field such as Eric Winsberg, Andrew Marsh, Michelle Addington and Ali Malkawi.

**Inquiry by Design** Nov 12 2021 Illustrating his points with many references to actual projects, John Zeisel explains, in non-technical language, the integration of social science research and design. The book provides a provocative text for students in all the fields related to environm

**Architecture In Use** Feb 03 2021 This unique book discusses programming, design and building evaluation providing a 'joined up' approach to building design. By linking the functional and architectonic qualities of a building, the authors show the practical implications of the utility value of buildings. Starting by looking at how the relationship between form and function has been dealt with by different approaches to architecture from a historical perspective, it goes on to discuss how the desired functional quality and utility value of a building can be expressed in a brief and given a physical form by the architect. Finally, it advises on how to carry out post-occupancy evaluation and provides the architect with methods and techniques for testing whether the intended utility value of a building has been achieved.

**Programming Architecture** May 18 2022 Programming Architecture is a simple and concise introduction to the history of computing and computational design, explaining the basics of algorithmic thinking and the use of the computer as a tool for design and architecture. Paul Coates, a pioneer of CAAD, demonstrates algorithmic thinking through projects and student work collated through his years of teaching students of computing and design. The book takes a detailed and practical look at what the techniques and philosophy of coding entail, and gives the reader many "glimpses under the hood" in the form of code snippets and examples of algorithms. This is essential reading for student and professional architects and designers interested in how the development of computers has influenced the way we think about, and design for, the built environment.

**Construction Specification Writing** Feb 21 2020 This third edition of the standard construction specifications writing guide has been updated to include new information on linking specifications to computer databases and to other parts of the design process. Construction Specifications Writing shows how to organize documents, consolidate the Federal government systems, generate well-researched mastertexts, automate specifications, write more condensed text, use full-time specifications consultants, and use the new knowledge-based specifying systems.