

Atmospheres

Cities grow and change. New urban space emerges and existing urban spaces are being changed. We expect from these spaces not only to fulfil important functions, but also to possess particular spatial qualities. How can such qualities be defined and evaluated? Jürgen Weidinger, professor for landscape architecture at the Technische Universität Berlin answers to these questions by engagement with the phenomenon of atmosphere. This way, the spatial quality of urban places, such as parks, promenades and squares, can be augmented. Weidinger offers a method for the designing of atmospheric places. This approach can also serve to evaluate design concepts and realised projects. The reader presents comments by internationally active landscape architects as well as writers from different fields such as environmental psychology, theatre studies, the arts and literature studies. Städte wachsen und verändern sich. Neue Stadträume entstehen und bestehende Stadträume werden verändert. Von diesen Orten erwarten wir, dass sie nicht nur wichtige Funktionen übernehmen, sondern auch über besondere räumliche Qualitäten verfügen. Wie können diese räumlichen Qualitäten beschrieben und bewertet werden? Jürgen Weidinger, Professor für Landschaftsarchitektur an der Technischen Universität Berlin, beantwortet diese Frage durch die Auseinandersetzung mit dem Phänomen der Atmosphäre. Die räumliche Qualität städtischer Orte, wie Parks, Promenaden und Stadtplätze kann in dieser Weise gesteigert werden. Weidinger bietet eine Methode für das Entwerfen atmosphärischer Orte an. Dieser Ansatz kann auch dazu dienen, Entwurfsideen und realisierte Projekte zu bewerten. Im Sammelband äußern sich neben international tätigen Landschaftsarchitekten auch Autoren aus den Bereichen Umweltpsychologie, Theater-, Kunst und Literaturwissenschaft.

The notion of atmosphere has always been part of academic discourse, but often refers to something vague and diffuse - a phenomenon connected with our affective engagement with the world that is difficult to grasp. This volume develops and refines the concept of atmosphere, seeking to render it productive for anthropological and social scientific research by bringing together a range of original ethnographic studies in combination with investigation of the use of the term in language. The chapters examine dimensions of atmosphere through topics of interdisciplinary concern, such as learning and the acquisition of skills, the experience of place, affect and mood, multi-species relations and the perception of weather and environment - whether in natural landscapes, medical and educational settings, homes or creative contexts - Exploring

Atmospheres Ethnographically analyses the relational and transformational processes through which people perceive, experience and live in a moving atmospheric world. As such, it will appeal to scholars of anthropology, sociology, geography and cultural studies with interests in space and place, sensory ethnography and affect.

Architecture is increasingly understood to be a sensual, spatial experience, which means that the experience of buildings and spatial constellations is also a perception of atmospheres that are rated as positive or negative. Architects, planners, investors, and politicians must produce effects such as these according to intersubjective and communicable criteria, and not intuitively or randomly. *Architectural Atmospheres* addresses the growing awareness of the atmospheric dimension of architecture and provides a current, programmatic discussion of this topic. What possibilities does this approach open to architecture, what value does this knowledge have? Three essays and a conversation lead a cross-discipline discussion on the impact of architecture, and contribute to the debate first initiated by Peter Zumthor. The texts are accompanied by thirty-five color images that capture architectural moods in a variety of ways. Gernot Böhme is Professor Emeritus of Philosophy at Darmstadt Technical University and Director of the Institute for Practical Philosophy, e.V., Ipph, in Darmstadt, Germany. Christian Borch is Professor of Political Sociology at the Department of Management, Politics, and Philosophy, Copenhagen Business School, Denmark. Olafur Eliasson is a Danish-Icelandic artist. Eliasson incessantly explores our modes of perceiving. His work spans photography, installation, sculpture, and film. Juhani Pallasmaa is one of Finland's most distinguished architects and architectural thinkers.

A radical new set of model atmospheres was prepared which represent typical atmospheric conditions for summer and winter at various latitudes up to 60 deg and which above 120 km are also functions of time of day and solar flux. These atmospheres connect at 80 km with Cole and Kantor's winter atmospheres for 30, 45, and 60 deg latitude, with their tropical atmosphere for 15 deg latitude and with their summer atmospheres for 30, 45, and 60 deg latitude. The three winter atmospheres merge at a common point at 120 km, with a density 50 percent above U. S. Standard 1962. The three summer atmospheres, plus the tropical atmosphere, merge at 120 km, with a density 20 percent below the U. S. Standard. In addition, a mean atmosphere has been prepared between 80 and 120 km which, in effect, constitutes a revision of the Standard. This atmosphere represents an average over all conditions, but also can be used for spring and fall at latitudes of 30 deg and higher. Each atmosphere has been calculated with a value of the acceleration due to gravity appropriate to the latitude. Starting from the three common points at 120 km are three sets of atmospheres. Each set consists of a number of atmospheres corresponding to exospheric temperatures lying between 600 and 2100K. At the higher altitudes, the seasonal dependence disappears and the variation is diurnal and with solar flux. These atmospheres are calculated using the acceleration due to gravity for a latitude of 45 deg. (Author)

The proposal to organize a Symposium on circumstellar matter and extended atmospheres in binary systems was first made by the Dominion Astrophysical Observatory to the Executive Committee of the International Astronomical Union in the summer of 1969. It received the support of the presidents of Commissions 29 (Stellar Spectra), 30 (Radial Velocities), 36 (Stellar Atmospheres), and 42 (Photometric Double Stars).

Approval in principle was given by the Executive Committee almost immediately, and the Committee further suggested that the Symposium be officially designated the Struve Memorial Symposium. Final approval was given at the time of the 1970 General Assembly of the Union. when the dates of the Symposium were set for August or September, 1972. The Organizing Committee set up consisted of K. O. Wright (Chairman), A. H. Batten, K. -H. B6hm, A. A. Boyarchuk, G. Larsson-Leander, and M. Plavec. In addition, J. Sahade and F. B. Wood acted as advisory members. Local organization was entrusted to a committee consisting of A. H. Batten, E. K. Lee, and C. D. Scarfe. The final dates selected were September 6-12, 1972, and the Symposium was held at the Island Hall Hotel, Parksville, B. C. , on Vancouver Island some 90 miles from Victoria. The Organizing Committee attempted to arrange a Symposium of the type in which no contributed papers would be presented and discussion would range as widely as possible over the field covered by the six invited review papers.

This book offers a sustained and deeply experiential pragmatic study of performance environments, here defined at unstable, emerging, and multisensational atmospheres, open to interactions and travels in augmented virtualities. Birringer's writings challenge common assumptions about embodiment and the digital, exploring and refining artistic research into physical movement behavior, gesture, sensing perception, cognition, and trans-sensory hallucination. If landscapes are autobiographical, and atmospheres prompt us to enter blurred lines of a "forest knowledge," where light, shade, and darkness entangle us in foraging mediations of contaminated diversity, then such sensitization to elemental environments requires a focus on processual interaction. Provocative chapters probe various types of performance scenarios and immersive architectures of the real and the virtual. They break new ground in analyzing an extended choreographic – the building of hypersensorial scenographies that include a range of materialities as well as bodily and metabodily presences. Foregrounding his notion of kinetic atmospheres, the author intimates a technosomatic theory of dance, performance, and ritual processes, while engaging in a vivid cross-cultural dialogue with some of the leading digital and theatrical artists worldwide. This poetic meditation will be of great interest to students and scholars in theatre, performing arts as well as media arts practitioners, composers, programmers, and designers.

Third edition of John Houghton's acclaimed textbook for advanced undergraduate/graduate courses in atmospheric science.

Describes the basic physical processes, including radiative transfer, molecular absorption, and chemical processes, common to all planetary atmospheres as well as the transit, eclipse, and thermal phase variation observations that are unique to exoplanets.

What is an "Atmosphere"? As part of the book series "Atmospheric Spaces", this volume analyses a new phenomenological and aesthetic paradigm based on the notion of the "Atmosphere", conceived as a feeling spread out into the external space rather than as a private mood. The idea of "Atmosphere" is here explored from different perspectives and disciplines, in the context of a full valorization of the so-called "affective turn" in Humanities.

Dr Houghton has revised the acclaimed first edition of *The Physics of Atmospheres* in order to bring this important textbook completely up-to-date. Several factors have led to vigorous growth in the atmospheric sciences, particularly the availability of powerful

computers for detailed modelling, the investigation of the atmospheres of other planets, and techniques of remote sensing. The author describes the physical processes governing the structure and circulation of the atmosphere. Simple physical models are constructed by applying the principles of classical thermodynamics, radiative transfer and fluid mechanics, together with analytic and numerical techniques. These models are applied to real planetary atmospheres. This new edition is essential for undergraduates or graduate students studying atmospheric physics, climatology or meteorology, as well as planetary scientists with an interest in atmospheres.

Push back the darkness! The atmosphere around you is alive with unseen spiritual activity--a battle between forces of darkness and light. You can take dominion over the supernatural environment for the Kingdom of God! Dawna De Silva presents a strategy for spiritual victory. Get ready to discern the enemy's tactics and learn how to use your weapons of warfare to enforce Jesus' victory over forces that war against your mind, your family, and your region! Don't be blind to the unseen reality--every Christian is in the midst of a supernatural conflict. Don't fall victim to the enemy! Every Christian can release God's power into places and situations under the influence of evil. Through the power of the Holy Spirit, you can transform your spiritual environment from darkness to light. Dawna De Silva shows you how. Through her revelatory teaching, you will learn to... Discern the spiritual atmospheres and forces at work around you Draw from the Holy Spirit's presence within you to release God's Kingdom power Demonstrate the authority of Jesus over the powers of darkness Join the fight! When God's Kingdom advances, darkness must flee. Also available: Essential Training for Shifting Atmospheres (companion to DVD Study), Shifting Atmospheres book, Shifting Atmospheres curriculum

Spacecraft study of the Solar system is one of humanity's most outstanding achievements. Thanks to this study, our present knowledge of properties of and conditions on the planets exceeds many-fold that of 20 years ago: planets have been rediscovered. This is especially the case for planetary atmospheres, whose properties were for the most part either not at all or only erroneously known. Much research has been invested in the study of the atmospheres of Mars and Venus, and their chemical composition and photochemistry are basic problems in these studies. In the present publication I have tried to summarize all findings in this field. The English version of the book includes new data in the field from the last 3 years since the book was published in Russian. I wish to thank U. von Zahn, who initiated my talks with Springer-Verlag and acted as technical editor. December 2, 1985 V. A. KRASNOPOLSKY Contents

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Planetary atmospheres is a relatively new, interdisciplinary subject that incorporates various areas of the physical and chemical sciences, including geophysics, geophysical fluid dynamics, atmospheric science, astronomy, and astrophysics. Providing a much-needed resource for this cross-disciplinary field, *An Introduction to Planetary Atmospheres* presents current knowledge on atmospheres and the fundamental mechanisms operating on them. The author treats the topics in a comparative manner among the different solar system bodies—what is known as comparative planetology. Based on an established course, this comprehensive text covers a panorama of solar system bodies and their relevant general properties. It explores the origin and evolution of atmospheres, along with their chemical composition and thermal structure. It also describes cloud formation and properties, mechanisms in thin and upper atmospheres, and meteorology and dynamics. Each chapter focuses on these

atmospheric topics in the way classically done for the Earth's atmosphere and summarizes the most important aspects in the field. The study of planetary atmospheres is fundamental to understanding the origin of the solar system, the formation mechanisms of planets and satellites, and the day-to-day behavior and evolution of Earth's atmosphere. With many interesting real-world examples, this book offers a unified vision of the chemical and physical processes occurring in planetary atmospheres. Ancillaries are available at www.ajax.ehu.es/planetary_atmospheres/

Electrical processes take place in all planetary atmospheres. There is evidence for lightning on Venus, Jupiter, Saturn, Uranus and Neptune, it is possible on Mars and Titan, and cosmic rays ionise every atmosphere, leading to charged droplets and particles. Controversy surrounds the role of atmospheric electricity in physical climate processes on Earth; here, a comparative approach is employed to review the role of electrification in the atmospheres of other planets and their moons. This book reviews the theory, and, where available, measurements, of planetary atmospheric electricity, taken to include ion production and ion-aerosol interactions. The conditions necessary for a global atmospheric electric circuit similar to Earth's, and the likelihood of meeting these conditions in other planetary atmospheres, are briefly discussed. Atmospheric electrification is more important at planets receiving little solar radiation, increasing the relative significance of electrical forces. Nucleation onto atmospheric ions has been predicted to affect the evolution and lifetime of haze layers on Titan, Neptune and Triton. For planets closer to Earth, heating from solar radiation dominates atmospheric circulations. Mars may have a global circuit analogous to the terrestrial model, but based on electrical discharges from dust storms, and Titan may have a similar global circuit, based on transfer of charged raindrops. There is an increasing need for direct measurements of planetary atmospheric electrification, in particular on Mars, to assess the risk for future unmanned and manned missions. Theoretical understanding could be increased by cross-disciplinary work to modify and update models and parameterisations initially developed for a specific atmosphere, to make them more broadly applicable to other planetary atmospheres. The possibility of electrical processes in the atmospheres of exoplanets is also discussed. In this book, renowned scientists describe the complexity of exoplanetary atmospheres and all of the observational techniques that are employed to probe them. Readers will also find a panoramic description of the atmospheres of the planets within the Solar System, with explanation of considerations especially relevant to exoplanets. Over the past few years, thousands of exoplanets have been discovered orbiting around stars relatively close to the Solar System. Astronomers have revealed how varied these exoplanets are (rocky, icy, giant) and how diverse their architecture can be, confirming science fiction images in several cases and extending beyond the human imagination in others. The natural next step is to study their atmospheres and to understand their chemical

composition and the physical processes taking place in their interiors, with the aim of detecting biomarkers. This book will appeal to all who seek a comprehensive, state-of-the-art account of the latest knowledge in the rapidly developing and highly interdisciplinary field of exoplanet research.

Everyday, whether we realize it or not, we enter a spiritual battlefield. There are forces around us that need to be discerned and transformed. These forces create atmospheres. Too many people either tolerate these negative atmospheres or run away from them in fear. As a child of God, filled with the Spirit, you are called to shift these atmospheres by using your Kingdom authority! Based on Dawna De Silva's powerful teaching on shifting spiritual atmospheres, these 90 daily readings will equip you, day by day, for transforming the different environments you enter. See into the unseen. Get more in tune with the invisible realm around you. Get on the offensive. Discern the devil's tactics and live a step ahead of his strategies. Claim your victory. Use the weapons of warfare that give you an upper hand in spiritual conflict. Release the Holy Spirit. Learn how to release God's Presence to change any atmosphere you experience by using your Kingdom authority. You don't have to deal with demonic or tormenting atmospheres. You were meant to carry the power that defeats darkness. Learn how to exercise your spiritual authority on a daily basis and shift spiritual atmospheres through the Presence of God!

The SpringerBriefs on Atmospheric and Space Sciences in two volumes presents a concise and interdisciplinary introduction to the basic theory, observation & modeling of atmospheric and ionospheric coupling processes on Earth. The goal is to contribute toward bridging the gap between meteorology, aeronomy, and planetary science. In addition recent progress in several related research topics, such atmospheric wave coupling and variability, is discussed. Volume 1 will focus on the atmosphere, while Volume 2 will present the ionosphere—the plasma environment. Volume 1 is aimed primarily at (research) students and researchers that would like to gain quick insight in atmospheric sciences and current research. It also is a useful tool for professors who would like to develop a course in atmospheric physics.

This valuable reference presents detailed studies of eleven planetary atmospheres at the same time it offers an extensive survey of the principal chemical cycles that control the present composition and past history of these planetary atmospheres.

An essential introduction to the theory of exoplanetary atmospheres The study of exoplanetary atmospheres—that is, of planets orbiting stars beyond our solar system—may be our best hope for discovering life elsewhere in the universe. This dynamic, interdisciplinary field requires practitioners to apply knowledge from atmospheric and climate science, astronomy and astrophysics, chemistry, geology and geophysics, planetary science, and even biology. Exoplanetary Atmospheres provides an essential introduction to the theoretical foundations of this cutting-edge new science. Exoplanetary Atmospheres covers the physics of

radiation, fluid dynamics, atmospheric chemistry, and atmospheric escape. It draws on simple analytical models to aid learning, and features a wealth of problem sets, some of which are open-ended. This authoritative and accessible graduate textbook uses a coherent and self-consistent set of notation and definitions throughout, and also includes appendixes containing useful formulae in thermodynamics and vector calculus as well as selected Python scripts. Exoplanetary Atmospheres prepares PhD students for research careers in the field, and is ideal for self-study as well as for use in a course setting. The first graduate textbook on the theory of exoplanetary atmospheres Unifies knowledge from atmospheric and climate science, astronomy and astrophysics, chemistry, planetary science, and more Covers radiative transfer, fluid dynamics, atmospheric chemistry, and atmospheric escape Provides simple analytical models and a wealth of problem sets Includes appendixes on thermodynamics, vector calculus, tabulated Gibbs free energies, and Python scripts Solutions manual (available only to professors)

Based on the author's own work and results obtained by international teams he coordinated, this SpringerBrief offers a concise discussion of the origin and early evolution of atmospheres of terrestrial planets during the active phase of their host stars, as well as of the environmental conditions which are necessary in order for planets like the Earth to obtain N₂-rich atmospheres. Possible thermal and non-thermal atmospheric escape processes are discussed in a comparative way between the planets in the Solar System and exoplanets. Lastly, a hypothesis for how to test and study the discussed atmosphere evolution theories using future UV transit observations of terrestrial exoplanets within the orbits of dwarf stars is presented. Originally published in Italian in 2010, this book is the first to address the theory of atmospheres in a thorough and systematic way. It examines the role of atmospheres in daily life, and defines their main characteristics. Outlining the typical phenomenological situations in which we experience atmospheres, it assesses their impact on contemporary aesthetics. It puts forward a philosophical approach which systematises a constellation of affects and climates, finds patterns in the emotional tones of different spaces (affordances) and assesses their impact on the felt body. It also critically discusses the spatial turn invoked by several of the social sciences, and argues that there is a need for a non-psychologistic rethinking of the philosophy of emotions. It provides a history of the term 'atmosphere' and of the concepts anticipating its meaning (genius loci, aura, Stimmung, numinous, emotional design and ambiance), and examines the main ontological characteristics of atmospheres and their principal phenomenological characteristics. It concludes by showing how atmospheres affect our emotions, our bodies' reactions, our state of mind and, as a result, our behaviour and judgments. Griffero assesses how atmospheres are more effective than we have been rationally willing to admit, and to what extent traditional aesthetics, unilaterally oriented towards art, has underestimated this truth.

This book provides an in-depth and self-contained treatment of the latest advances achieved in quantitative spectroscopic analyses of the observable outer layers of stars and similar objects. Written by two leading researchers in the field, it presents a comprehensive account of both the physical foundations and numerical methods of such analyses. The book is ideal for astronomers who want to acquire deeper insight into the physical foundations of the theory of stellar atmospheres, or who want to learn about modern computational techniques for treating radiative transfer in non-equilibrium situations. It can also serve as a rigorous yet accessible introduction to the discipline for graduate students. Provides a comprehensive, up-to-date

account of the field Covers computational methods as well as the underlying physics Serves as an ideal reference book for researchers and a rigorous yet accessible textbook for graduate students An online illustration package is available to professors at press.princeton.edu

The study of exoplanetary atmospheres—that is, of planets orbiting stars beyond our solar system—may be our best hope for discovering life elsewhere in the universe. This dynamic, interdisciplinary field requires practitioners to apply knowledge from atmospheric and climate science, astronomy and astrophysics, chemistry, geology and geophysics, planetary science, and even biology. *Exoplanetary Atmospheres* provides an essential introduction to the theoretical foundations of this cutting-edge new science. *Exoplanetary Atmospheres* covers the physics of radiation, fluid dynamics, atmospheric chemistry, and atmospheric escape. It draws on simple analytical models to aid learning, and features a wealth of problem sets, some of which are open-ended. This authoritative and accessible graduate textbook uses a coherent and self-consistent set of notation and definitions throughout, and also includes appendixes containing useful formulae in thermodynamics and vector calculus as well as selected Python scripts. *Exoplanetary Atmospheres* prepares PhD students for research careers in the field, and is ideal for self-study as well as for use in a course setting. The first graduate textbook on the theory of exoplanetary atmospheres Unifies knowledge from atmospheric and climate science, astronomy and astrophysics, chemistry, planetary science, and more Covers radiative transfer, fluid dynamics, atmospheric chemistry, and atmospheric escape Provides simple analytical models and a wealth of problem sets Includes appendixes on thermodynamics, vector calculus, tabulated Gibbs free energies, and Python scripts Solutions manual (available only to professors)

This book is aimed at studying the scattering of monochromatic radiation in plane inhomogeneous media. We are dealing with the media whose optical properties depend on a single spatial coordinate, namely of a depth. The most widely known books on radiation transfer, for instance 1. S. Chandrasekhar, *Radiative Transfer*, Oxford, Clarendon Press, 1950, (RT), 2. V. V. Sobolev, *Light Scattering in Planetary Atmospheres*, New York, Pergamon Press, 1975, (LSPA), 3. H. C. van de Hulst, *Multiple Light Scattering. Tables, Formulas and Applications*. Vol. 1,2, New York, Academic Press, 1980, (MLS), treat mainly the homogeneous atmospheres. However, as known, the actual atmospheres of stars and planets, basins of water, and other artificial and natural media are not homogeneous. This book deals with the model of vertically inhomogeneous atmosphere, which is closer to reality than the homogeneous models. This book is close to the aforementioned monographs in its scope of problems and style. Therefore, I guess that a preliminary knowledge of the contents of these books, particularly of the book by Sobolev, would facilitate the readers' task substantially. On the other hand, all concepts, problems, and equations used in this book are considered in full in Chap. 1. So, it will be possible for those readers who do not possess the above knowledge to understand this book. A general idea about the content of the book can be gained from both the Introduction and the Table of Contents.

Our subject is, of course, nothing more than applied physics and chemistry. But in addition to those basic sciences the student of planetary atmospheres needs an overview of atmospheric structure and physical processes as presently understood. This book is intended to help fill that need for both graduate students and research scientists. Although the approach is mainly theoretical, very little basic physics is developed here. Material that is standard fare in third- and fourth-year physics courses is simply absorbed where needed.

Atmospheres typical of the tropics (15 degrees N), sub-tropics (30 degrees N), and mid-latitudes (45 degrees N) were prepared as members of a family of atmospheres supplemental to the 1962 US Standard Atmosphere; they provide information on latitudinal and seasonal changes in atmospheric structure up to 90 km. Temperature gradients for various segments are linear with geopotential height. Humidity is incorporated into the lowermost 10 km of each

atmosphere. Figures and tables depict temperature, relative humidity, pressure, and density. The atmospheres are mutually consistent; zonal wind profiles computed from the geostrophic wind equation at selected pressure heights compare favorably with existing rawinsonde and Meteorological Rocket Network wind observations. (Author).

Planetary atmospheres are complex and evolving entities, as mankind is rapidly coming to realise whilst attempting to understand, forecast and mitigate human-induced climate change. In the Solar System, our neighbours Venus and Mars provide striking examples of two endpoints of planetary evolution, runaway greenhouse and loss of atmosphere to space. The variety of extra-solar planets brings a wider angle to the issue: from scorching "hot jupiters" to ocean worlds, exo-atmospheres explore many configurations unknown in the Solar System, such as iron clouds, silicate rains, extreme plate tectonics, and steam volcanoes. Exoplanetary atmospheres have recently become accessible to observations. This book puts our own climate in the wider context of the trials and tribulations of planetary atmospheres. Based on cutting-edge research, it uses a grand tour of the atmospheres of other planets to shine a new light on our own atmosphere, and its relation with life.

Although situations and atmospheres are omnipresent in organizations and have a significant influence on the behaviour of the members of the organization, they are only seldom regarded as relevant research subjects in management and organization research and systematically investigated. This book enters unknown territory in that it elevates situations and atmospheres to the most fundamental and everyday features of being-in-the-organization and investigates their development dynamics systematically. The new phenomenology of the German philosopher Hermann Schmitz, and critical supplements from his follower, Guido Rappe, serve as the theoretical foundation of the reflections. Human corporeality and subjectivity are at the centre of the reflections.

Planetary atmospheres is a relatively new, interdisciplinary subject that incorporates various areas of the physical and chemical sciences, including geophysics, geophysical fluid dynamics, atmospheric science, astronomy, and astrophysics. Providing a much-needed resource for this cross-disciplinary field, *An Introduction to Planetary Atmospheres* p

Interest in sensory atmospheres and architectural and urban ambiances has been growing for over 30 years. A key figure in this field is acclaimed German philosopher Gernot Böhme whose influential conception of what atmospheres are and how they function has been only partially available to the English-speaking public. This translation of key essays along with an original introduction charts the development of Gernot Böhme's philosophy of atmospheres and how it can be applied in various contexts such as scenography, commodity aesthetics, advertising, architecture, design, and art. The phenomenological analysis of atmospheres has proved very fruitful and its most important, and successful, application has been within aesthetics. The material background of this success may be seen in the ubiquitous aestheticization of our lifeworld, or from another perspective, of the staging of everything, every event and performance. The theory of atmospheres becoming an aesthetic theory thus reveals the theatrical, not to say manipulative, character of politics, commerce, of the event-society. But, taken as a positive theory of certain phenomena, it offers new perspectives on architecture, design, and art. It made the spatial and the experience of space and places a central subject and hence rehabilitated the ephemeral in the arts. Taking its numerous impacts in many fields together, it initiated a new humanism: the individual as a living person and his or her perspective are taken seriously, and this fosters the ongoing democratization of culture, in particular the possibility for everybody to participate in art and its works.

The Pritzker-winning architect outlines the creative process he employs while designing the atmosphere of his houses, describing in nine short and self-observant chapters his efforts to instill a feeling of harmonious presence into his environments.

100 Atmospheres is an invitation to think differently. Through speculative, poetic, and

provocative texts, thirteen writers and artists have come together to reflect on human relationships with other species and the planet.

This book introduces systematically the concept of weakly-bound complexes into the broad field of atmospheric sciences. To fill up the gap between our rapidly expanding knowledge of the individual properties of Van der Waals and hydrogen-bonded molecules, and our understanding of their role in the atmospheric processes, an ensemble of related topics are covered by a team of expert co-authors. The general properties of the weakly bound molecular complexes (or ?clusters?) are discussed, as well as their distribution in the planetary atmospheres. Collision-induced and dimeric absorption and emission are considered in the context of atmospheric spectroscopy. The advanced experimental techniques which enable us to study the spectroscopic features of molecular complexes in the gas phase, or which are adsorbed, are reviewed. The role of molecular complexes in the cometary atmosphere, the Earth mesosphere, and the atmospheres of the giant planets and some of their satellites are also discussed in detail.

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