nyc air quality history

nyc air quality history is a fascinating journey through time, reflecting the evolution of environmental awareness, urban development, and public health in one of the world's largest cities. From the smog-filled streets of the early 20th century to the substantial improvements seen in recent decades, New York City's air quality has been shaped by industrial growth, regulatory action, and scientific innovation. This article explores the major milestones and challenges in NYC's air quality history, examining the causes of pollution, transformative legislation, technological advances, and their impacts on residents. Readers will gain insights into the key historical events, trends in pollution levels, and ongoing efforts for cleaner air. Discover how New York City has confronted air pollution, adapted to change, and continues to pursue a healthier urban environment. This comprehensive guide is essential for understanding the past, present, and future of NYC's air quality.

Overview of NYC Air Quality History

New York City, renowned for its vibrant culture and iconic skyline, has a complex air quality history that mirrors its rapid growth and industrialization. Air pollution in NYC has fluctuated significantly over the decades, influenced by economic development, population density, and policy changes. As the city expanded in the 19th and 20th centuries, emissions from factories, vehicles, and heating systems introduced a range of pollutants into the urban atmosphere. Efforts to address these issues have evolved, resulting in notable improvements and ongoing challenges. Understanding NYC air quality history provides context for today's environmental policies and public health strategies.

Early Industrial Era and Initial Pollution Sources

Rise of Industrialization

The late 19th and early 20th centuries marked the beginning of NYC’s air pollution concerns, driven by industrialization and urbanization. Factories and power plants burned coal and oil, releasing large amounts of soot, sulfur dioxide, and particulate matter. Residential heating systems and street-level transportation further contributed to the growing problem, blanketing neighborhoods in smoke and haze. During this era, air quality was largely unregulated, and pollution was often considered a byproduct of progress rather than a public health threat.

Main Sources of Early Pollution

- Coal-fired power plants
- Industrial manufacturing facilities
- Domestic heating (coal and oil furnaces)
- Steam locomotives and early motor vehicles
- Incinerators and open burning of waste

These sources contributed to the deteriorating air quality that characterized much of early NYC life, especially in densely populated neighborhoods near industrial zones.

Mid-20th Century Smog Episodes

Notable Smog Events

By the 1940s and 1950s, NYC experienced severe smog episodes—periods of dangerously high levels of pollution that reduced visibility and posed serious health risks. The 1953 Thanksgiving Smog, for example, enveloped the city in a thick haze for several days, leading to increased hospital admissions and public outcry. These smog events were largely attributed to industrial emissions, vehicle exhaust, and stagnant weather conditions that trapped pollutants near the ground.

Public Awareness and Scientific Research

Smog episodes prompted the first waves of scientific research and public concern about air pollution in NYC. Health professionals began documenting the links between poor air quality and respiratory illnesses, while environmental activists advocated for stronger regulations. The media coverage of these events helped shift the public's perception of air pollution—from a nuisance to a serious threat to health and quality of life.

Key Legislation and Regulatory Milestones

Early Anti-Pollution Laws

NYC's first efforts to control air pollution began with basic ordinances targeting smoke and odors. The Smoke Control Ordinance of 1957 required businesses to install pollution-control devices, marking the city's initial attempt at regulation. However, enforcement was limited, and air quality improvements were minimal.

Major Federal and State Legislation

1. Clean Air Act of 1970: Set national standards for air pollutants and empowered the Environmental Protection Agency (EPA) to enforce regulations.

2. New York State Air Pollution Control Act: Established state-level standards and monitoring.

3. Local laws targeting vehicle emissions and fuel standards in NYC.

These legislative milestones provided a framework for systematic air quality monitoring and enforcement, driving significant reductions in pollutants throughout the city.

Air Quality Improvements and Technological Advances

Progress in Pollution Control

The late 20th century saw dramatic improvements in NYC's air quality, thanks to technological advances and stricter regulations. The phasing out of coal and oil in favor of cleaner energy sources, retrofitting of older power plants, and widespread adoption of catalytic converters in vehicles all contributed to lower emissions. Urban planning initiatives reduced congestion and promoted public transportation, further decreasing air pollution.

Innovations in Monitoring and Data Collection

Air quality monitoring became more sophisticated with the deployment of automated sensors and real-time data systems. Agencies like the NYC Department of Environmental Protection and the EPA established networks to measure levels of ozone, particulate matter, nitrogen oxides, and other pollutants. This data-driven approach enabled more targeted interventions and transparent public reporting.

Modern Trends and Current Challenges

Recent Improvements in Air Quality

Over the past three decades, NYC has achieved notable reductions in major air pollutants, including fine particulate matter (PM2.5), sulfur dioxide, and carbon monoxide. Cleaner fuels, improved vehicle emissions standards, and building energy efficiency programs have all played key roles in these improvements. Air quality in most neighborhoods now meets federal standards for many pollutants, with visible smog becoming a rare occurrence.

Persistent Air Quality Challenges

- Traffic congestion and emissions from diesel vehicles
- Construction dust and urban development
- Heat waves and climate change exacerbating ozone levels
- Air pollution hotspots in disadvantaged communities

Despite progress, NYC continues to face challenges related to transportation, construction, and climate change, which can lead to episodic spikes in pollution and unequal impacts across the city.

Impact on Public Health and Environmental Justice

Health Effects of Air Pollution

NYC’s air quality history is closely linked to public health outcomes. Exposure to air pollutants has been associated with increased rates of asthma, heart disease, and

respiratory illnesses. Vulnerable populations—including children, seniors, and those living in high-traffic areas—have historically faced higher health risks. Recent studies show improvements, but disparities persist.

Environmental Justice and Community Initiatives

Environmental justice has become a central focus in NYC’s air quality strategy. Advocacy groups and local government have prioritized reducing pollution in underserved neighborhoods, supporting cleaner transportation options, and investing in green infrastructure. These initiatives aim to ensure that all New Yorkers benefit from improved air quality, regardless of socioeconomic status.

Future Directions for NYC Air Quality

Policy Goals and Emerging Technologies

Looking ahead, NYC is investing in ambitious air quality goals, including electrifying public transportation, expanding bike lanes, and adopting zero-emission building codes. Emerging technologies, such as air filtration systems and smart monitoring networks, are expected to further reduce pollution. The city’s commitment to sustainability and climate resilience will shape the next chapter in its air quality history.

Ongoing Community Engagement

Public participation and education remain vital to sustaining progress. Community air monitoring projects, school-based health programs, and transparent reporting help empower residents to advocate for cleaner air. The continued evolution of NYC air quality history will depend on collaboration between policymakers, scientists, and the public.

Questions and Answers about NYC Air Quality History

Q: What were the main sources of air pollution in NYC during the early industrial era?

A: The primary sources were coal-fired power plants, manufacturing facilities, residential heating with coal and oil, steam locomotives, and open waste incineration.

Q: Which legislation had the greatest impact on improving NYC air quality?

A: The federal Clean Air Act of 1970, along with New York State’s Air Pollution Control Act and various local ordinances, dramatically improved air quality by setting strict standards and enabling enforcement.

Q: What was the significance of the 1953 Thanksgiving Smog in NYC history?

A: The 1953 Thanksgiving Smog highlighted the dangers of air pollution, increased public awareness, and led to calls for stronger regulation and monitoring.

Q: How has air quality monitoring evolved in New York City?

A: Monitoring has advanced from basic visual observations to sophisticated real-time sensor networks, allowing for detailed tracking of pollutants and targeted interventions.

Q: What are the major pollutants of concern in NYC today?

A: Current concerns include fine particulate matter (PM2.5), ozone, nitrogen oxides, and emissions from diesel vehicles and construction activities.

Q: How have technological advances contributed to cleaner air in NYC?

A: Innovations such as catalytic converters, cleaner fuels, retrofitted power plants, and advanced air monitoring have greatly reduced emissions and improved air quality.

Q: What role does environmental justice play in NYC air quality initiatives?

A: Environmental justice efforts focus on reducing pollution in disadvantaged communities, ensuring fair access to clean air, and addressing health disparities.

Q: What are the current challenges for air quality in New York City?

A: Persistent challenges include traffic congestion, construction dust, localized pollution hotspots, and climate change-related increases in ozone levels.

Q: How does air pollution affect public health in NYC?

A: Air pollution is linked to higher rates of asthma, heart disease, and respiratory illnesses, especially among vulnerable populations.

Q: What future strategies are planned to further improve NYC air quality?

A: The city is pursuing electrification of transportation, zero-emission building codes, expansion of green spaces, and adoption of new monitoring technologies to continue improving air quality.

Nyc Air Quality History

NYC Air Quality History: A Breathtaking (and Sometimes Suffocating) Retrospective

New York City, the city that never sleeps, has a long and complex history, and a significant part of that narrative is woven into the very air its inhabitants breathe. This comprehensive exploration delves into the NYC air quality history, charting its evolution from periods of intense pollution to the ongoing efforts towards cleaner air. We'll examine key turning points, influential legislation, and the ongoing challenges facing the city in its pursuit of breathable air for all its residents. Prepare to journey through time, uncovering the fascinating – and sometimes alarming – story of NYC's atmospheric past.

The Early Years: A Smoky, Sooty Beginning (Pre-1960s)

Before stringent environmental regulations, New York City's air quality was drastically different. The pre-1960s era was characterized by ubiquitous coal-burning for heating and industry. Factories belched out plumes of smoke, and countless horse-drawn carriages contributed to a thick, persistent haze.

The Great Smog of 1953: A Wake-Up Call

While not on the scale of London's Great Smog, NYC experienced its own severe pollution events. The Great Smog of 1953, a period of stagnant air and intense industrial emissions, served as a chilling preview of the potential consequences of unchecked pollution. This event, though less deadly than its London counterpart, highlighted the urgent need for change and helped lay the groundwork for future environmental legislation.

The Rise of the Automobile: A New Era of Pollution

The post-war boom brought a rapid increase in car ownership. This influx of vehicles, coupled with continued industrial emissions, created a cocktail of pollutants that significantly impacted air quality. The hazy skies and pungent odors became a normalized, if unhealthy, part of city life.

The Clean Air Act and Beyond: Turning the Tide (1960s - Present)

The 1960s marked a turning point. The passage of the Clean Air Act in 1963, followed by subsequent amendments, set in motion a series of regulations aimed at curbing air pollution. This legislation proved instrumental in reducing emissions from both stationary sources (factories, power plants) and mobile sources (vehicles).

Catalytic Converters and Lead Reduction: Key Advancements

The introduction of catalytic converters in automobiles significantly reduced emissions of harmful pollutants like carbon monoxide and hydrocarbons. The phasing out of leaded gasoline was another landmark achievement, dramatically decreasing lead levels in the air, which had devastating impacts on public health, especially children.

Ongoing Challenges and Future Directions

Despite significant progress, NYC still faces air quality challenges. Construction activity, traffic congestion, and regional air pollution transport contribute to elevated levels of particulate matter and ozone. The city continually works to improve its air quality through programs focused on:

Vehicle emission standards: Stringent regulations on vehicle emissions and promoting the adoption

of electric vehicles.
Green initiatives: Expanding green spaces, investing in renewable energy, and promoting energy efficiency.
Construction site monitoring: Implementing and enforcing stricter regulations to minimize emissions from construction activities.
Public awareness campaigns: Educating residents about air quality and the health impacts of pollution.

Analyzing the Data: Trends and Insights

Tracking NYC's air quality history requires analyzing long-term data sets maintained by the Environmental Protection Agency (EPA) and other agencies. These data reveal fluctuating trends, demonstrating the impact of policy changes and economic shifts. Studying this data allows for a deeper understanding of the effectiveness of implemented strategies and areas needing further improvement.

Conclusion: Breathing Easier, But the Fight Continues

The history of NYC air quality is a testament to both the destructive potential of unchecked pollution and the transformative power of collective action. While considerable progress has been made, the journey towards consistently clean air is far from over. Ongoing vigilance, innovative solutions, and sustained commitment are crucial for ensuring a healthy and breathable future for all New Yorkers.

FAQs

1. What were the most significant pollutants in early NYC air? Coal smoke, industrial emissions (sulfur dioxide, particulate matter), and eventually automobile exhaust (carbon monoxide, hydrocarbons, lead).

2. How did the Clean Air Act impact NYC's air quality? The Clean Air Act and subsequent amendments provided the legal framework for significant reductions in various pollutants, setting emission standards for both stationary and mobile sources.

3. What are the biggest air quality challenges facing NYC today? Particulate matter from traffic and construction, ozone formation influenced by regional pollution, and the impact of climate change on air quality.

4. Where can I find current NYC air quality data? The New York State Department of Environmental

Conservation (NYSDEC) and the EPA provide real-time air quality data and information for the NYC metropolitan area.

5. What can individuals do to contribute to better NYC air quality? Support policies that promote clean energy and sustainable transportation, reduce personal vehicle use, and advocate for stricter emission standards.

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WHO guidelines for the protection of public health from risks due to a number of chemicals commonly present in indoor air. The substances considered in this review, i.e. benzene, carbon monoxide, formaldehyde, naphthalene, nitrogen dioxide, polycyclic aromatic hydrocarbons (especially benzo[a]pyrene), radon, trichloroethylene and tetrachloroethylene, have indoor sources, are known in respect of their hazardousness to health and are often found indoors in concentrations of health concern. The guidelines are targeted at public health professionals involved in preventing health risks of environmental exposures, as well as specialists and authorities involved in the design and use of buildings, indoor materials and products. They provide a scientific basis for legally enforceable standards.

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health effects and health risk assessment, IAQ and cognitive performance, standards and guidelines, IAQ control, and air quality in various indoor environments. It provides a combination of an introduction to various aspects on IAQ studies, the current state-of-knowledge, various advances and the perspective of IAQ studies. It will be very helpful for the researchers and technicians in the IAQ and the related fields. It is also useful for experts in other fields and general readers who want to obtain a basic understanding of and research advances in the field of IAQ. A group of experts in IAQ research have been recruited to write the chapters. Their research interests and experience cover the scope of the book. In addition, some experienced experts in IAQ field have been invited as advisors or reviewers to give their comments, suggestions and revisions on the handbook framework and the chapter details. Their contribution guarantees the quality of the book. We are very grateful to them. Last but not least, we express our heartfelt thanks to Prof. Spengler, Harvard University, for writing the foreword of the current Handbook of Indoor Air Quality both as a pioneer scientist who contributed greatly to indoor air science and as an Editor-in-chief of Handbook of Indoor Air Quality 2001, 1st ed. New York: McGraw-Hill. In addition to hard copies, the book is also published online and will be updated by the authors as needed to keep it aligned with current knowledge. These salient features can make the handbook fresh with the research development.

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health than others. Those disparities are caused not only by fundamental differences in health status across segments of the population, but also because of inequities in factors that impact health status, so-called determinants of health. Only part of an individual's health status depends on his or her behavior and choice; community-wide problems like poverty, unemployment, poor education, inadequate housing, poor public transportation, interpersonal violence, and decaying neighborhoods also contribute to health inequities, as well as the historic and ongoing interplay of structures, policies, and norms that shape lives. When these factors are not optimal in a community, it does not mean they are intractable: such inequities can be mitigated by social policies that can shape health in powerful ways. Communities in Action: Pathways to Health Equity seeks to delineate the causes of and the solutions to health inequities in the United States. This report focuses on what communities can do to promote health equity, what actions are needed by the many and varied stakeholders that are part of communities or support them, as well as the root causes and structural barriers that need to be overcome.

nyc air quality history: *The History, Use, Disposition and Environmental Fate of Agent Orange* Alvin Lee Young, 2009-04-21 For almost four decades, controversy has surrounded the tactical use of herbicides in Southeast Asia by the United States military. Few environmental or occupational health issues have received the sustained international attention that has been focused on Agent Orange, the major tactical herbicide deployed in Southern Vietnam. With the opening and establishment of normal relations between the United States and the Socialist Republic of Vietnam in 1995, the time has come for a thorough re-examination of the military use of Agent Orange and other tactical herbicides in Southern Vietnam, and the subsequent actions that have been taking place since their use in Vietnam. The United States Department of Defense has had the major role in all military operations involving the use of tactical herbicides, including that of Agent Orange. This included the Department's purchase, shipment and tactical use of herbicides in Vietnam, its role in the disposition of Agent Orange after Vietnam, its role in conducting long-term epidemiological investigations of the men of Operation RANCH HAND, and its sponsorship of ecological and environmental fate studies. This book was commissioned by The Office of the Deputy Under Secretary of Defense (Installations and Environment) with the intent of providing documentation of the knowledge on the history, use, disposition and environmental fate of Agent Orange and its associated dioxin.

nyc air quality history: *Air Pollution Modeling* P. Zannetti, 2013-06-29 Finishing this book is giving me a mixture of relief, satisfaction and frus tration. Relief, for the completion of a project that has taken too many of my evenings and weekends and that, in the last several months, has become almost an obsession. Satisfaction, for the optimistic feeling that this book, in spite of its many shortcomings and imbalances, will be of some help to the air pollution scientific community. Frustration, for the impossibility of incorporating newly available material that would require another major review of several key chap ters - an effort that is currently beyond my energies but not beyond my desires. The first canovaccio of this book came out in 1980 when I was invited by Computational Mechanics in the United Kingdom to give my first Air Pollution Modeling course. The course material, in the form of transparencies, expanded, year after year, thus providing a growing working basis. In 1985, the ECC Joint Research Center in Ispra, Italy, asked me to prepare a critical survey of mathe matical models of atmospheric pollution, transport and deposition. This support gave me the opportunity to prepare a sort of first draft of the book, which I expanded in the following years.

nyc air quality history: *Command Of The Air* General Giulio Douhet, 2014-08-15 In the pantheon of air power spokesmen, Giulio Douhet holds center stage. His writings, more often cited than perhaps actually read, appear as excerpts and aphorisms in the writings of numerous other air power spokesmen, advocates-and critics. Though a highly controversial figure, the very controversy that surrounds him offers to us a testimonial of the value and depth of his work, and the need for airmen today to become familiar with his thought. The progressive development of air power to the point where, today, it is more correct to refer to aerospace power has not outdated the notions of

Douhet in the slightest In fact, in many ways, the kinds of technological capabilities that we enjoy as a global air power provider attest to the breadth of his vision. Douhet, together with Hugh “Boom” Trenchard of Great Britain and William “Billy” Mitchell of the United States, is justly recognized as one of the three great spokesmen of the early air power era. This reprint is offered in the spirit of continuing the dialogue that Douhet himself so perceptively began with the first edition of this book, published in 1921. Readers may well find much that they disagree with in this book, but also much that is of enduring value. The vital necessity of Douhet’s central vision-that command of the air is all important in modern warfare-has been proven throughout the history of wars in this century, from the fighting over the Somme to the air war over Kuwait and Iraq.

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nyc air quality history: Air Quality Wayne T. Davis, Joshua S. Fu, 2021-02-24 The sixth edition

of a bestseller, Air Quality provides students with a comprehensive overview of air quality, the science that continues to provide a better understanding of atmospheric chemistry and its effects on public health and the environment, and the regulatory and technological management practices employed in achieving air quality goals. Maintaining the practical approach that has made previous editions popular, the chapters have been reorganized, new material has been added, less relevant material has been deleted, and new images have been added, particularly those from Earth satellites. New in the Sixth Edition New graphics, images, and an appended list of unit conversions New problems and questions Presents all-new information on the state of air quality monitoring Provides the latest updates on air quality legislation in the United States Updates the effects of air pollution and CO2 on climate change Examines the effects of the latest changes in energy production and the related emissions and pollutants Offers broadened coverage of air pollutant emissions and air quality in a global context This new edition elucidates the challenges we face in our efforts to protect and enhance the quality of the nation's air. It also highlights the growing global awareness of air quality issues, climate change, and public health concerns in the developing world. The breadth of coverage, review questions at the end of each chapter, extensive glossary, and list of readings place the tools for understanding into your students' hands.

nyc air quality history: *Silent Spring* Rachel Carson, 2002 The essential, cornerstone book of modern environmentalism is now offered in a handsome 40th anniversary edition which features a new Introduction by activist Terry Tempest Williams and a new Afterword by Carson biographer Linda Lear.

nyc air quality history: Air Quality, Fifth Edition Thad Godish, Wayne T. Davis, Joshua S. Fu, 2014-08-15 The fifth edition of a bestseller, Air Quality provides students with a comprehensive overview of air quality, the science that continues to provide a better understanding of atmospheric chemistry and its effects on public health and the environment, and the regulatory and technological management practices employed in achieving air quality goals. Maintaining the practical approach that has made previous editions so popular, the chapters have been reorganized, new material has been added, less relevant material deleted, and new images added, particularly those from Earth satellites. See What's New in the Fifth Edition: New graphics, images, and an appended list of unit conversions New problems and questions Revisions and updates on the regulatory aspects related to air quality, emissions of pollutants, and particularly in the area of greenhouse gas emissions Updated information on topics that affect air quality such as global warming, climate change, international issues associated with air quality and its regulation, atmospheric deposition, atmospheric chemistry, and health and environmental effects of atmospheric pollution Written in Thad Godish's accessible style, the book clearly elucidates the challenges we face in our fifth decade of significant regulatory efforts to protect and enhance the quality of the nation's air. It also highlights the growing global awareness of air quality issues, climate change, and public health concerns in the developing world. The breadth of coverage, review questions at the end of each chapter, extensive glossary, and list of readings put the tools for understanding in your students' hands.

nyc air quality history: Earth Frank H. T. Rhodes, 2012-06-15 It's impossible to grasp the whole planet or integrate all the descriptions of it. But because we live here, we have to try. This is not just an artistic compulsion or an existential yearning, still less an academic exercise. It's a survival issue. This is the only planet we have. We're stuck here, and we don't own the place—it would be the height of arrogance to assume that we do. We're tenants here, not owners, but we're tenants with hope for a long-term tenancy. We want to extend our lease just as far as we can.—from Earth: A Tenant's Manual In Earth: A Tenant's Manual, the distinguished geologist Frank H. T. Rhodes, President Emeritus of Cornell University, provides a sweeping, accessible, and deeply informed guide to the home we all share, showing us how we might best preserve the Earth's livability for ourselves and future generations. Rhodes begins by setting the scene for our active planet and explaining how its location and composition determine how the Earth works and why it teems with life. He emphasizes the changes that are of concern to us today, from earthquakes to

climate change and the clashes over the energy resources needed for the Earth's exploding population. He concludes with an extended exploration of humanity's prospects on a complex, protean, and ultimately finite world. It is not a question of whether the planet is sustainable; the challenge facing life on Earth—and the life of the Earth—is whether an expanding and high-consumption species like ours is sustainable. Only new resources, new priorities, new policies and, most of all, new knowledge, can reverse the damage that humanity is doing to our home—and ourselves. A sustainable human future, Rhodes concludes in this eloquent, sobering, but ultimately optimistic book, will require a sense of responsible stewardship, for we are not owners of this planet; we are tenants. Surveying the systems, large and small, that govern Earth's processes and influence its changes, Rhodes addresses the negative consequences of human activities for the health of its regulatory systems but offers practical suggestions as to how we might effect repairs, or at least limit further damage to our home.

nyc air quality history: The History of Love: A Novel Nicole Krauss, 2006-05-17 ONE OF THE MOST LOVED NOVELS OF THE DECADE. A long-lost book reappears, mysteriously connecting an old man searching for his son and a girl seeking a cure for her widowed mother's loneliness. Leo Gursky taps his radiator each evening to let his upstairs neighbor know he’s still alive. But it wasn’t always like this: in the Polish village of his youth, he fell in love and wrote a book…Sixty years later and half a world away, fourteen-year-old Alma, who was named after a character in that book, undertakes an adventure to find her namesake and save her family. With virtuosic skill and soaring imaginative power, Nicole Krauss gradually draws these stories together toward a climax of extraordinary depth and beauty (Newsday).

nyc air quality history: Urban Sprawl and Public Health Howard Frumkin, Lawrence Frank, Richard J. Jackson, 2004-07-09 'Urban Sprawl and Public Health' offers a survey of the impact that the built environment can have on the health of the people who inhabit our cities. The authors go on to suggest ways in which the design of cities could be improved & have a positive impact on the well-being of their citizens.

nyc air quality history: Historical Dictionary of Environmentalism Peter Dauvergne, 2016-09-09 To capture the diversity within environmentalism, this dictionary takes a global tack with a focus on ideas, events, institutions, initiatives, and green movements since the 1960s. It strives to avoid a common error in many histories of environmentalism: to exaggerate the input of the wealthy countries of Europe and North America and understate the influence of Africa, Asia, South and Central America, and the Polar Regions. It aims as well for a more comprehensive analysis than most histories of the modern environmental movement, understanding environmentalism as emerging not only from grassroots and formal nongovernmental associations, but also from corporate, governmental, and intergovernmental organizations and initiatives. This assumes the ideas and energy infusing environmentalism with political purpose arise from hundreds of thousands of sources: from corporate boardrooms to bureaucratic policies to international negotiations to activists. Thus, environmentalists are not only indigenous people blocking a logging road, Greenpeace activists protesting a seal hunt, or green candidates contesting an election; an equal or larger number of environmentalists are working within the Japanese bureaucracy to implement environmental policies, within the World Bank to assess the environmental impacts of loans, within Wal-Mart to green its purchasing practices, or within intergovernmental forums to negotiate international environmental agreements. This second edition of Historical Dictionary of Environmentalism contains a chronology, an introduction, and an extensive bibliography. The dictionary section has over 300 cross-referenced entries on important events, issues, organizations, ideas, and people shaping the direction of environmentalism worldwide. This book is an excellent access point for students, researchers, and anyone wanting to know more about environmentalism.

nyc air quality history: *In Search of Good Energy Policy* Marc Ozawa, Jonathan Chaplin, Michael Pollitt, David Reiner, Paul Warde, 2019-06-20 Offers an innovative look at why science and technology cannot alone meet the needs of energy policy making in the future.

nyc air quality history: Air Quality in Cities Nicolas Moussiopoulos, 2013-11-11 Urban areas

are major sources of air pollution. Pollutant emissions affecting air quality in cities are considered to have adverse consequences for human health. Public and government concern about environmental issues arising from urban air pollution has increased over the last decades. The urban air pollution problem is widespread throughout the world and it is important to find ways of eliminating or at least reducing the risks for human health. The fundamentals of the physical and chemical processes occurring during air pollutant transport in the atmosphere are nowadays understood to a large extent. In particular, modelling of such processes has experienced a remarkable growth in the last decades. Monitoring capabilities have also improved markedly in the most urban areas around the world. However, neither modelling nor monitoring can solve urban air pollution problems, as they are only a first step in improving useful information for future regulations. The defining of efficient control strategies can not be achieved without a clear knowledge of the complete pollution process, i.e. emission, atmospheric transport and transformation, and deposition at the receptor. Improving our ability to establish valid urban scale source-receptor relation ships has been the objective of SA TURN, one of the 14 subprojects of EURO TRAC-2. Similar to the other subprojects of this co-ordinated environmental pro ject within the EUREKA initiative, SA TURN brought together international groups of scientists to work on problems directly related to atmospheric chemistry and physics. The present volume summarises the scientific results of SATURN.

nyc air quality history: The Basic Environmental History Mauro Agnoletti, Simone Neri Serneri, 2014-10-15 This book is an introductory instrument to the main themes of environmental history, illustrating its development over time, methodological implications, results achieved and those still under discussion. But the overriding aspiration is to show that the doubts, methods and knowledge elaborated by environmental history have a heuristic value that is far from negligible precisely in its attitude to the most consolidated major historiography. For this reason, this book gives an overview of environmental history as it is an essential component of the basic knowledge of global history. At the same time, it introduces specific aspects which are useful both for anyone wanting to deepen his/her studies of environmental historiography and for those interested in one of the many disciplinary areas – from rural history to urban history, from the history of technology to the history of public health, etc. with which environmental history develops a dialogue.

nyc air quality history: Air Pollution Calculations Daniel A. Vallero, 2023-09-17 Air Pollution Calculations: Quantifying Pollutant Formation, Transport, Transformation, Fate and Risks, Second Edition enhances the systems science aspects of air pollution, including transformation reactions in soil, water, sediment and biota that contribute to air pollution. This second edition will be an update based on research and actions taken since 2019 that affect air pollution calculations, including new control technologies, emissions measurement, and air quality modeling. Recent court cases, regulatory decisions, and advances in technology are discussed and, where necessary, calculations have been revised to reflect these updates. Sections discuss pollutant characterization, pollutant transformation, and environmental partitioning. Air partitioning, physical transport of air pollutants, air pollution biogeochemistry, and thermal reactions are also thoroughly explored. The author then carefully examines air pollution risk calculations, control technologies and dispersion models. The text wraps with discussions of economics and project management, reliability and failure, and air pollution decision-making. - Provides real-life current cases as examples of quantitation of emerging air pollution problems - Includes straightforward derivation of equations, giving practitioners and instructors a direct link between first principles of science and applications of technologies - Presents example calculations that make scientific theory real for the student and practitioner

nyc air quality history: People and Nature in Historical Perspective J¢zsef Laszlovszky, P,ter Szab¢, 2003-01-01 Knochenartefakte - Beinartefakte - Bein.

nyc air quality history: A Companion to Global Environmental History J. R. McNeill, Erin Stewart Mauldin, 2012-08-22 The Companion to Global Environmental History offers multiple points of entry into the history and historiography of this dynamic and fast-growing field, to provide an essential road map to past developments, current controversies, and future developments for specialists and newcomers alike. Combines temporal, geographic, thematic and contextual

approaches from prehistory to the present day Explores environmental thought and action around the world, to give readers a cultural, intellectual and political context for engagement with the environment in modern times Brings together environmental historians from around the world, including scholars from South Africa, Brazil, Germany, and China

nyc air quality history: Fundamentals of Air Pollution Richard W. Boubel, Daniel Vallero, Donald L. Fox, Bruce Turner, Arthur C. Stern, 2013-10-22 This new edition of the premier air pollution textbook is completely updated and revised to include all components of the 1990 Clean Air Act Amendments. Fundamentals of Air Pollution, Third Edition covers the spectrum of topics pertinent to the study of air pollution: elements, sources, effects, measurement, monitoring, meteorology, and regulatory and engineering control. In addition, the textbook features new chapters on atmospheric emissions from hazardous waste sites, air pathways from hazardous waste sites, and the long-term effects of air pollution on the earth. It also presents updated information on acidic development, long-distance transport, atmospheric chemistry, and mathematical modeling. With extensive references, suggested reading lists, questions, and new figures and tables, this text will serve as an invaluable resource for students and practitioners alike. * This new edition features coverage of: Regulatory requirements of the Clean Air Act Amendments of 1990 New developments in the modelling of air quality Air pollution control Air pollution engineering/atmospheric chemistry

nyc air quality history: Toms River Dan Fagin, 2013-03-19 WINNER OF THE PULITZER PRIZE • Winner of The New York Public Library's Helen Bernstein Book Award • "A new classic of science reporting."—The New York Times The riveting true story of a small town ravaged by industrial pollution, Toms River melds hard-hitting investigative reporting, a fascinating scientific detective story, and an unforgettable cast of characters into a sweeping narrative in the tradition of A Civil Action, The Emperor of All Maladies, and The Immortal Life of Henrietta Lacks. One of New Jersey's seemingly innumerable quiet seaside towns, Toms River became the unlikely setting for a decades-long drama that culminated in 2001 with one of the largest legal settlements in the annals of toxic dumping. A town that would rather have been known for its Little League World Series champions ended up making history for an entirely different reason: a notorious cluster of childhood cancers scientifically linked to local air and water pollution. For years, large chemical companies had been using Toms River as their private dumping ground, burying tens of thousands of leaky drums in open pits and discharging billions of gallons of acid-laced wastewater into the town's namesake river. In an astonishing feat of investigative reporting, prize-winning journalist Dan Fagin recounts the sixty-year saga of rampant pollution and inadequate oversight that made Toms River a cautionary example for fast-growing industrial towns from South Jersey to South China. He tells the stories of the pioneering scientists and physicians who first identified pollutants as a cause of cancer, and brings to life the everyday heroes in Toms River who struggled for justice: a young boy whose cherubic smile belied the fast-growing tumors that had decimated his body from birth; a nurse who fought to bring the alarming incidence of childhood cancers to the attention of authorities who didn't want to listen; and a mother whose love for her stricken child transformed her into a tenacious advocate for change. A gripping human drama rooted in a centuries-old scientific quest, Toms River is a tale of dumpers at midnight and deceptions in broad daylight, of corporate avarice and government neglect, and of a few brave individuals who refused to keep silent until the truth was exposed. NAMED ONE OF THE BEST BOOKS OF THE YEAR BY NPR AND KIRKUS REVIEWS "A thrilling journey full of twists and turns, Toms River is essential reading for our times. Dan Fagin handles topics of great complexity with the dexterity of a scholar, the honesty of a journalist, and the dramatic skill of a novelist."—Siddhartha Mukherjee, M.D., author of the Pulitzer Prize–winning The Emperor of All Maladies "A complex tale of powerful industry, local politics, water rights, epidemiology, public health and cancer in a gripping, page-turning environmental thriller."—NPR "Unstoppable reading."—The Philadelphia Inquirer "Meticulously researched and compellingly recounted . . . It's every bit as important—and as well-written—as A Civil Action and The Immortal Life of Henrietta Lacks."—The Star-Ledger "Fascinating . . . a gripping environmental thriller."—Kirkus Reviews (starred review) "An honest, thoroughly researched, intelligently written

book.”—Slate “[A] hard-hitting account . . . a triumph.”—Nature “Absorbing and thoughtful.”—USA Today

nyc air quality history: Greater Gotham Mike Wallace, 2017 Volume two of the world famous trilogy on the history of New York

nyc air quality history: *Terra* Michael Novacek, 2008-11-11 A paleontologist awakens us to the extinction event that human activity is bringing about today The natural world as humans have always known it evolved close to 100 million years ago, with the appearance of flowering plants and pollinating insects during the age of the dinosaurs. Its tremendous history is now in danger of profound, catastrophic disruption. In Terra, a brilliant synthesis of evolutionary biology, paleontology, and modern environmental science, Michael Novacek shows how all three can help us understand and prevent what he (and others) call today's mass extinction event. Humanity's use of land, our consumption, the pollution we create, and our contributions to global warming are causing this crisis. True, the fossil record of hundreds of millions of years reveals that wild and bounteous nature has always evolved not quietly but thunderously, as species arise, flourish, die off, and are replaced by new species. We learn from paleontology and archaeology that for 50,000 years, human hunting, mining, and agriculture have changed many localities, sometimes irrevocably. But today, Novacek insists, our behavior endangers the entire global ecosystem. And if we disregard—through ignorance, antipathy, or apathy—the theory of evolution that developed with our modern understanding of the Earth's past, we not only impede enlightenment but threaten any practical strategy for our own survival. The evolutionary future of the entire living planet depends on our understanding this.