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Chapter 1 : The Cambridge History of Science | Awards | LibraryThing

The Cambridge History of Science is to be published in eight substantial volumes, beginning with Ancient Mesopotamia and classical Greece and Rome, through the Medieval period, early modern Europe, and on through modern science. The history begins chronologically and that approach continues on up to.

A comprehensive account of knowledge of the natural world in Europe, ca. Often referred to as the Scientific Revolution, this period saw major transformations in fields as diverse as anatomy and astronomy, natural history and mathematics. Articles by leading specialists describe in clear, accessible prose supplemented by extensive bibliographies, how new ideas, discoveries, and institutions shaped the ways in which nature came to be studied, understood, and used. Part III treats the study of nature by discipline, following the classification of the sciences current in early modern Europe. Part IV takes up the implications of the new natural knowledge for religion, literature, art, gender, and European identity. This book is an excellent source for current thinking on Early Modern Science. The chapters are writtten by the leading shcolars n their respective fields. This book, along with the rest of the Cambridge History of Science series, belongs in all academic and large public libraries. The breadth and range of the volume is breathtaking and, hard as I tried, I could think of little that was lacking As such they constitute a useful disciplinary resource for teachers but also mark the way for the next generation of extensions, revisioins and syntheses. Physics and foundations Daniel Garber; 2. Scientific explanation Lynn S. The meanings of experience Peter Dear; 4. Proof and persuasion Richard W. Personae and Sites of Natural Knowledge: The man of science Steven Shapin; 2. Women of natural knowledge Londa Schiebinger; 3. Markets, piazzas, and villages William Eamon; 4. Homes and households Alix Cooper; 5. Libraries and lecture halls Anthony Grafton; 6. Courts and academies Bruce T. Anatomy theaters, botanical gardens, and natural history collections Paula Findlen; 8. Sites of military science and technology Kelly DeVries; Coffeehouses and print shops Adrian Johns; Networks of travel, correspondence, and exchange Steven J. Dividing the Study of Nature: Natural philosophy Ann Blair; 2. Natural history Paula Findlen; 4. Vogel translated by Alisha Rankin ; 5. Astronomy William Donahue; 9. Acoustics and optics Paolo Mancosu; Mechanics Domenico Beroloni Meli; The mechanical arts Jim Bennett; Pure mathematics Kirsti Andersen and Henk J. Cultural Meanings of Natural Knowledge: Religion Rivka Feldhay; 2. Literature Mary Baine Campbell; 3. Art Carmen Nickrasz and Claudia Swan; 4. Gender Dorinda Outram; 5. European expansion and self-definition Klaus A. Vogel translated by Alisha Rankin. Zur Geschichte der Rationalitat Gender, Generation and the Origins of Human Dissection forthcoming Bestsellers in this subject.

Chapter 2 : The Cambridge History of Science: Volume 4, Eighteenth-Century Science by Roy Porter

The Department of History and Philosophy of Science at the University of Cambridge has an outstanding international reputation for its teaching and research.

However, it was an incident at Oxford which is most likely to have formed the establishment of the university: The University of Oxford went into suspension in protest, and most scholars moved to cities such as Paris , Reading , and Cambridge. After the University of Oxford reformed several years later, enough scholars remained in Cambridge to form the nucleus of the new university. No college is as old as the university itself. The colleges were endowed fellowships of scholars. There were also institutions without endowments, called hostels. The hostels were gradually absorbed by the colleges over the centuries, but they have left some indications of their existence, such as the name of Garret Hostel Lane. Many colleges were founded during the 14th and 15th centuries, but colleges continued to be established until modern times, although there was a gap of years between the founding of Sidney Sussex in and that of Downing in The most recently established college is Robinson , built in the late s. However, Homerton College only achieved full university college status in March , making it the newest full college it was previously an "Approved Society" affiliated with the university. In medieval times, many colleges were founded so that their members would pray for the souls of the founders, and were often associated with chapels or abbeys. In response, colleges changed their curricula away from canon law, and towards the classics , the Bible, and mathematics. Nearly a century later, the university was at the centre of a Protestant schism. Many nobles, intellectuals and even commoners saw the ways of the Church of England as being too similar to the Catholic Church and felt that it was used by the Crown to usurp the rightful powers of the counties. East Anglia was the centre of what became the Puritan movement. Mathematics and mathematical physics[edit] Sir Isaac Newton was a student of the University Examination in mathematics was once compulsory for all undergraduates studying for the Bachelor of Arts degree, the main first degree at Cambridge in both arts and sciences. From the time of Isaac Newton in the later 17th century until the midth century, the university maintained an especially strong emphasis on applied mathematics , particularly mathematical physics. The exam is known as a Tripos. Hardy , disliked the system, feeling that people were too interested in accumulating marks in exams and not interested in the subject itself. Pure mathematics at Cambridge in the 19th century had great achievements but also missed out on substantial developments in French and German mathematics. Pure mathematical research at Cambridge finally reached the highest international standard in the early 20th century, thanks above all to G. Hardy , his collaborator J. Littlewood and Srinivasa Ramanujan. Hodge brought Cambridge into the international mainstream in the s. Although diversified in its research and teaching interests, Cambridge today maintains its strength in mathematics. Cambridge alumni have won six Fields Medals and one Abel Prize for mathematics, while individuals representing Cambridge have won four Fields Medals. The first Cambridge PhD in mathematics was awarded in Teaching, and the fees it earned, came almost to a stop and severe financial difficulties followed. As a consequence the university first received systematic state support in , and a Royal Commission appointed in recommended that the university but not the colleges should receive an annual grant. University of Cambridge UK Parliament constituency The university was one of only two universities to hold parliamentary seats in the Parliament of England and was later one of eight represented in the Parliament of the United Kingdom. The constituency was created by a Royal Charter of and returned two members of parliament until , when it was abolished by the Representation of the People Act The constituency was not a geographical area. Its electorate consisted of the graduates of the university. Before the franchise was restricted to male graduates with a doctorate or MA degree. The first women students were examined in but attempts to make women full members of the university did not succeed until As they were not "admitted to the Degree of Bachelor of Arts" they were excluded from the governing of the university. Since students must belong to a college, and since established colleges remained closed to women, women found admissions restricted to colleges established only for women. Darwin College, the first wholly graduate college of the university, matriculated both men and women students from its inception in â€” and elected a mixed

fellowship. One of the female-only colleges, Girton, also began to admit male students from , but the other female-only colleges did not do likewise.

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Chapter 3 : The Cambridge History of Science: Volume 5, The Modern Physical and - Google Books

*The Cambridge History of Science: Volume 2, Medieval Science [David C. Lindberg, Michael H. Shank] on racedaydvl.com *FREE* shipping on qualifying offers. This volume in the highly respected Cambridge History of Science series is devoted to the history of science in the Middle Ages from the North Atlantic to the Indus Valley.*

Frequently asked questions Info Our MPhil Master of Philosophy provides students with an unparalleled opportunity to explore topics across history and philosophy of science and medicine, laying deep foundations for further study, work and public involvement. All assessment is based on submitted writing â€" there are no courses or modules to complete. This allows room for independent growth in different directions, a feature of the MPhil that distinguishes our programme from those at other universities and that our students regularly praise. Choose from a wide range of topics History and philosophy of science and medicine is a large research area spanning centuries, cultures and sciences. Some students come with a specific list of topics and work on them through the year; others adjust or change their plans. Some specialise right away in either history of a period or of a science or philosophy. Others mix and match, trying out different skills in each piece of submitted work. Many students research objects in the Whipple Museum of History of Science, making discoveries and later publishing their work. The 12,word dissertation is the culmination of the year. It allows students to explore a topic in depth and to build an extended argument. The MPhil dissertation often becomes the basis of a PhD thesis or academic article. Work with leading academics Our students work closely with leading academics. The number and diversity of potential supervisors within the Department, and in the University at large, means that students can find experts in most areas of history and philosophy of science and medicine. These scholars then work with each student individually, guiding them in honing their research topics, finding the right literature to engage, formulating an argument, and perfecting their writing. Join a friendly department This is an active, friendly department that offers a packed schedule of lectures, seminars and reading groups. By interacting with other members of the Department â€" academics, PhD students, postdocs and visitors from all over the world â€" MPhil students gain a great deal of feedback on their writing. They also acquire a broader set of skills that set them up to become academic researchers, writers and colleagues. Plan the next step By the end of the MPhil course, our students have a good idea about their own future interests and the best way to realise their individual talents and put their new skills to use. Beyond that, a third of our MPhil students go on to take up academic positions, generally after completing a PhD. Others go into careers in museums and libraries, publishing, journalism, law, medicine, teaching and consultancy, while some of our MPhil alumni have started their own companies, worked for major NGOs and written prize-winning books. However, you can apply for the MPhil if you prefer, or you can apply for both and decide later which course to take.

Chapter 4 : MPhil in History and Philosophy of Science and Medicine | Graduate study | HPS

This volume in the highly respected Cambridge History of Science series is devoted to the history of science in the Middle Ages from the North Atlantic to the Indus Valley. Medieval science was once universally dismissed as non-existent - and sometimes it still is. This volume reveals the diversity.

Darrel Rutkin As is well known, astrology finally disappeared from the domain of legitimate natural knowledge during the seventeenth and eighteenth centuries, although the precise contours of this story remain obscure. It is less well known, albeit clearly documented, that astrology was taught from the beginning of the four- teenth century as an important part of the arts and science curriculum at the great medieval and Renaissance universities, including Padua, Bologna, and Paris. There, astrology was studied within three distinct scientific disciplines â€" mathematics, natural philosophy, and medicine â€" and served to integrate several highly developed mathematical sciences of antiquity â€" astronomy, geography, and geometrical optics â€" with Aristotelian natural philosophy. This astrologizing Aristotelianism provided fundamental patterns of inter- pretation and analysis in pre-Newtonian natural knowledge. Thus, the his- tory of astrology â€" and, in particular, the story of its protracted criticism and ultimate rejection as a source of what the learned considered legiti- mate natural knowledge â€" is central for understanding the transition from medieval and Renaissance natural philosophy to Enlightenment science. The role of astrology in this transition was neither obvious nor unproblematic. Thus it becomes necessary to explain why this promising astrological synthesis was rejected in favor of a rather different mathematical natural philosophy. Darrel Rutkin â€" , were both practicing astrologers. This evidence suggests that the role of astrology in the learned culture of the sixteenth and seventeenth centuries and the story of its ultimate fall from intellectual grace are more complex and important than generally thought. This chapter will sketch that role and that story. Finally, I ask how, when, and ultimately why astrology came to be removed from its central place in the premodern understanding of nature over the course of the seventeenth and eighteenth centuries. Desist from publishing negative prognostications about me or my realm, he insisted, or I will send two of my men to cut you into pieces. In addition to teaching the standard curriculum, the professor of astrology was also required by statute to participate in at least three public astrolog- ical disputations per year and to supply the prognostication, together with other astrological services â€" free and in a timely manner â€" to the university community. By , annual prognostications regularly appeared in print, 1 For various useful but incomplete discussions of this topic, see, among others, Keith Thomas, Religion and the Decline of Magic: Scribners, ; Patrick Curry, Prophecy and Power: For a fuller discussion with bibliography of this and many other issues in this chapter, see H. For the definition and outlines of this discipline as it was taught and practiced in the years around , we can look to the Hellenistic astronomer-mathematician Ptolemy ca. The second â€" astrology â€" investigated the influences of the heavenly bodies on the earth; because of the perturbing interaction with matter, its knowledge was not exact. Fratelli Legov, , pp. Claudius Ptolemaus, Tetrabiblos, trans. Harvard University Press, , is still useful. Columbia University Press, â€"58 ; and Brian P. Cambridge University Press, , pp. All translations are mine unless otherwise indicated. English Almanacs, â€" London: Faber, , for England and America. Darrel Rutkin a ruler, passing the baton of command to a general, or laying the cornerstone of an important building. For Christians such as Albertus, elections in particular raised sensitive issues because they related to the science of images, which occupied the borderlands between what we would call magic, science, and religion. What Albertus considered the legitimate science of images, which included the making of talismans, belonged to the realm of astrological magic. This science was developed by the Arabs, based in part on Greek sources, and the relevant texts were translated into Latin during the twelfth and thirteenth centuries. It worked by means of natural astrological mechanisms and was presumably included among elections because talismans needed to be made at astrologically propitious times. Good general scholarly accounts of astrology are: Tamsyn Barton, Ancient Astrology London: Boydell Press, ; and J. Eade, The Forgotten Sky: Brill, , both with rich up- to-date bibliographies. Variorum, , pp. Accademia Nazionale dei Lincei, , pp. Texts and Traditions of Medieval Ritual Magic, ed. Claire Fanger University Park: Pennsylvania State University

Press, , pp. See, for example, Stuart Clark, Thinking with Demons: Clarendon Press, , and the volumes in the Routledge series Witchcraft and Magic in Europe, all with rich bibliographies. I have avoided configuring astrology within the so-called occult sciences because this category is fundamentally anachronistic and dependent on too many misleading assumptions to be conceptually or historically useful. Siraisi, Arts and Sciences at Padua: The Studium of Padua before Toronto: Pontifical Institute of Medieval Studies, For a similar process with physiognomy, see Jole Agrimi, Ingeniosa scientia nature: Studi sulla fisiognomica medievale Millennio Medievale 36, 8 Florence: Thus, at Padua, 12 astrology was taught not only in the mathematics course with mathematical astronomy and in the natural philosophy course with Aristotle but in the medical course as well. As prescribed in the statutes for the study of arts and medicine at the University of Bologna, still the foundation of instruction in the late fifteenth century, the four-year course in mathematics and astrology began with two years of prerequisites in arith- metic, geometry, and astronomy, including lectures on Euclid, the Sphere of Sacrobosco, and the Alphonsine tables. I used the facsimile of the Venice, Giunta edition of For related issues, see also Robert S. Thomas Kuhn and the Nature of Science, ed. MIT Press, , pp. See also Paul L. Rose, The Italian Renaissance of Mathematics: His Life and Work, trans. The Bibliographical Society, â€”5. Norton, , pp. La Neuve, , 1: Finally, the four-year medical course focused on medical texts. In De generatione et corruptione,21 Aristotle argued that the sun, as it moved around the ecliptic in the course of the year, was the universal efficient cause, ontologically prior to and necessary for gen- eration and corruption; that is, for things to come into being and pass away. Thus, processes of generation, human and otherwise, required the sun as efficient cause ; the male, who provided the formal cause in his seed; and the female, who supplied the material cause in the menses of her womb. In his commentary on this passage, Albertus Magnus expanded the realm of the efficient cause to include the rest of the planets in addition to the sun. In this understanding of celestial action, natural philosophical structures were fitted onto a fundamentally Ptolemaic cosmographic framework com- posed of mathematical astronomy calibrated with mathematical geography. This framework allowed the planetary motions to be uniquely determined 19 See Nancy G. Siraisi, Taddeo Alderotti and His Pupils: Princeton University Press, The Medieval Cosmos, â€” Cambridge: Walter de Gruyter, , pp. This is important because place was essential for analyzing the role of celestial influences in generation, as Albertus made clear: If anyone wished to understand all the natures and properties of particular places, he would know that there is not a point in them that does not have a special property from the virtue of the stars,. And this is reasonable because it has been learned that the heavens pour forth formative virtues into everything that exists. Moreover, it mostly pours them forth by means of rays emitted by the lights of the stars, and therefore it follows that each pattern and angle of rays causes different virtues in things below. The angular relationship of the planets to each other â€” the planetary aspects â€” and their collective relationship to each place on earth could then be fully articulated. When the different qualitative natures of each planet â€” in themselves and as modified by each sign of the zodiac â€” were taken into account, as well as the variation in effect from their varying angular relationships, the result was an integrated mathematical natural philosophy of richness and sophistication. The most famous fifteenth-century attack on astrology was that of Giovanni Pico della Mirandola â€” in his extensive Disputationes adversus astrologiam divinatricem Disputations against Divinatory Astrology, composed in â€”4 and published posthumously in Aschendorff, â€” , vol. Euge- nio Garin, 2 vols. Filosofi, streghe, riti nel Rinascimento, 2nd ed. Marsilio, , pp. Darrel Rutkin vita On Life, , which included a summa of astrological magic as part of its third book. By excis- ing what he saw as outdated Arabo-Latin accretions, Pico hoped to restrict celestial influences to the realm of universal efficient cause, as originally in Aristotle, thus removing the possibility of particular predictions. Farmer, Syncretism in the West: Medieval and Renaissance Texts and Studies, , pp. Kaske and John R. Medieval and Renaissance Texts and Studies, , with an important introduction and commentary. For the classic discussion of this work, see Daniel P. University of Michigan Press, , pp. For Pisa, see Charles B. Variorum Reprints, , pp. There is excellent scholar- ship reconstructing astrological culture in particular locations. Zur Geschichte der Wiener mathematischen Schulen des Valentin Koerner, ; and Michael H. Edith Sylla and Michael R. Brill, , pp. The Case of Philip Melanchthon Cambridge: Cambridge University Press,

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Chapter 5 : The Cambridge History of Science: Ancient Science Volume 1 : Alexander Jones :

The Cambridge History of Science, Volume 5: The Modern Physical and Mathematical Sciences by Mary Jo Nye 5 The Cambridge History of Science, Volume 6: The Modern Biological and Earth Sciences by Peter J. Bowler.

Chapter 6 : The Cambridge History of Science: Volume 3, Early Modern Science - Google Books

The development of agriculture has often been described as the most important change in all of human history. Volume 2 of the Cambridge World History series explores the origins and impact of agriculture and agricultural communities, and also discusses issues associated with pastoralism and hunter-fisher-gatherer economies.

Chapter 7 : Department of History and Philosophy of Science

The Cambridge History of Science, vol 3: Early Modern Science is a comprehensive account of knowledge of the natural world in Europe, ca. Often referred to as the Scientific Revolution, this period saw major transformations in fields as diverse as anatomy and astronomy, natural history and mathematics.

Chapter 8 : University of Cambridge - Wikipedia

The Cambridge History of Science VOLUME 4: EIGHTEENTH-CENTURY SCIENCE Edited by Roy Porter This volume offers to general and specialist readers alike the fullest.

Chapter 9 : The Cambridge History of Science: Volume 2, Medieval Science by David C. Lindberg

History and philosophy of science and medicine is a large research area spanning centuries, cultures and sciences. Some students come with a specific list of topics and work on them through the year; others adjust or change their plans.