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References

Aktuell

Bagnoli 2016

Franco Bagnoli, *We shoot a bullet vertically. Where will it land?* Europhysics News **47** (2016), iv, 27–28.

The projectile maintains its tangential velocity ωR_0 (where R_0 is the radius of the Earth and ω is the angular velocity of the rotation), but climbing up it "falls behind" with respect to the tangential velocity of the altitude reached, and therefore, during the upward motion, it deviates towards the West (for the same reason why the falling bodies deviate eastward). But on its way down the opposite happens, and it is unclear whether this is enough to have the bullet land at the starting point. Another consideration is that the projectile motion is similar to the motion of a Foucault pendulum, whose trajectories have the form of rosettes, preceding towards the West. But even this is not enough to allow us to decide where the landing spot is. We have to resort to equations, which fortunately are not very difficult to handle.

Chadwick 2016

Martin J. Chadwick, Raeesa S. Anjum, Dharshan Kumaran, Daniel L. Schacter, Hugo J. Spiers & Demis Hassabis, *Semantic representations in the temporal pole predict false memories*. PNAS **113** (2016), 10180–10185.

Recent advances in neuroscience have given us unprecedented insight into the neural mechanisms of false memory, showing that artificial memories can be inserted into the memory cells of the hippocampus in a way that is indistinguishable from true memories. However, this alone is not enough to explain how false memories can arise naturally in the course of our daily lives. Cognitive psychology has demonstrated that many instances of false memory, both in the laboratory and the real world, can be attributed to semantic interference. Whereas previous studies have found that a diverse set of regions show some involvement in semantic false memory, none have revealed the nature of the semantic representations underpinning the phenomenon. Here we use fMRI with representational similarity analysis to search for a neural code consistent with semantic false memory. We find clear evidence that false memories emerge from a similarity-based neural code in the temporal pole, a region that has been called the "semantic hub" of the brain. We further show that each individual has a partially unique semantic code within the temporal pole, and this unique code can predict idiosyncratic patterns of memory errors. Finally, we show that the same neural code can also predict variation in true-memory performance, consistent with an adaptive perspective on false memory. Taken together, our findings reveal the underlying structure of neural representations of semantic knowledge, and how this semantic structure can both enhance and distort our memories.

Keywords: false memory | semantic | temporal pole | fMRI | pattern similarity

Significance: False memories can arise in daily life through a mixture of factors, including misinformation and prior conceptual knowledge. This can have serious consequences in settings, such as legal eyewitness testimony, which depend on the accuracy of memory. We investigated the brain basis of false memory with fMRI,

and found that patterns of activity in the temporal pole region of the brain can predict false memories. Furthermore, we show that each individual has unique patterns of brain activation that can predict their own idiosyncratic set of false-memory errors. Together, these results suggest that the temporal pole may be responsible for the conceptual component of illusory memories.

Anthropologie

Suchak 2016

Malini Suchak, Timothy M. Eppley, Matthew W. Campbell, Rebecca A. Feldman, Luke F. Quarles & Frans B. M. de Waal, *How chimpanzees cooperate in a competitive world*. PNAS **113** (2016), 10215–10220.

Our species is routinely depicted as unique in its ability to achieve cooperation, whereas our closest relative, the chimpanzee (Pan troglodytes), is often characterized as overly competitive. Human cooperation is assisted by the cost attached to competitive tendencies through enforcement mechanisms, such as punishment and partner choice. To examine if chimpanzees possess the same ability to mitigate competition, we set up a cooperative task in the presence of the entire group of 11 adults, which required two or three individuals to pull jointly to receive rewards. This opengroup set-up provided ample opportunity for competition (e.g., freeloading, displacements) and aggression. Despite this unique set-up and initial competitiveness, cooperation prevailed in the end, being at least five times as common as competition. The chimpanzees performed 3,565 cooperative acts while using a variety of enforcement mechanisms to overcome competition and freeloading, as measured by (attempted) thefts of rewards. These mechanisms included direct protest by the target, third-party punishment in which dominant individuals intervened against freeloaders, and partner choice. There was a marked difference between freeloading and displacement; freeloading tended to elicit withdrawal and third-party interventions, whereas displacements were met with a higher rate of direct retaliation. Humans have shown similar responses in controlled experiments, suggesting shared mechanisms across the primates to mitigate competition for the sake of cooperation.

Keywords: Pan troglodytes | freeloading | enforcement | punishment | partner choice

Significance: Competitive tendencies may make it hard for members of a group to cooperate with each other. Humans use many different "enforcement" strategies to keep competition in check and favor cooperation. To test whether one of our closest relatives uses similar strategies, we gave a group of chimpanzees a cooperative problem that required joint action by two or three individuals. The open-group set-up allowed the chimpanzees a choice between cooperation and competitive behavior like freeloading. The chimpanzees used a combination of partner choice and punishment of competitive individuals to reduce competition. In the end, cooperation won. Our results suggest that the roots of human cooperation are shared with other primates.

Bibel

Kiel 2016

Yishai Kiel, *A Young Avestan Model for the Composition of P*. unknown (2016), preprint, 1–39. .

The article examines the distinctive compositional structure of the original stratum of the Priestly Source (P), before the incorporation of the Holiness legislation (H), and its theological underpinnings against the backdrop of the Videvdad – a Zoroastrian priestly work in Young Avestan composed orally at some point during the first half of the first millennium B.C.E, which was in all probability known in one form or another in Old Persian translation or paraphrasing in the western regions of the Achaemenid Empire. While there are numerous theological and ritual differences between the two works, which stem from completely disparate religious settings, it is argued that they share nevertheless a theological infrastructure that underlies their parallel compositional structures.

In both P and the Videvdad, the recipients of God's law are enjoined to partake in the ongoing cosmic battle against evil aimed at neutralizing chaos and re-enforcing order, by meticulously upholding a system of sacrificial and purity laws. Cultic and purity laws, which comprise the core of the legislative body of P and the Videvdad, function in both works as a ritual reenactment and manifestation of a continuous cosmological battle against chaos that began with creation. In both works, the sacrificial and purity laws are preceded by, and theologically facilitated through, a creation narrative (exhibiting the initial taming of chaos by God), a flood story (reflecting the persistence of evil), a "history" of divine revelation, entailing God's communication with certain individuals prior to the ultimate revelation of his law, and finally the revelation of the law (consisting primarily of purity and cultic regulations) to Moses and Zarathustra, respectively. P and the Videvdad are similarly marked, moreover, by a theological watershed that divides the pre-nomian era of pre-Mosaic and preZarathustrian communication with the deity – a period in which no positive divine law existed and no sacrifices were offered – from the period that unfolded with the imparting of the divine law to humans through the mediation of Moses and Zarathustra.

Weighing in on the widely-debated question of the date and provenance of P, it is posited that, while P incorporates traditions that go back to the First Temple period – which are significantly informed by Mesopotamian and Hittite parallels – the composition of P, which largely determined its literary structure and overall theological message, are the unmistakable product of the late exilic or postexilic periods. Precisely when cultural contact between the Judean priesthood and Iranian culture became historically possible, with the unfolding of the Persian period, we witness the impact of these contacts in the parallel compositional productions of the Judean and Iranian priesthood.

Biologie

Epstein 2016

Brendan Epstein et al., *Rapid evolutionary response to a transmissible cancer in Tasmanian devils*. Nature Communications **7** (2016), 12684. DOI:10.1038/ncomms12684.

NatComm07-12684-Supplement1.pdf, NatComm07-12684-Supplement2.xls

Brendan Epstein, Menna Jones, Rodrigo Hamede, Sarah Hendricks, Hamish McCallum, Elizabeth P. Murchison, Barbara Schönfeld, Cody Wiench, Paul Hohenlohe, & Andrew Storfer

Although cancer rarely acts as an infectious disease, a recently emerged transmissible cancer in Tasmanian devils (Sarcophilus harrisii) is virtually 100 % fatal. Devil facial tumour disease (DFTD) has swept across nearly the entire species' range, resulting in localized declines exceeding 90 % and an overall species decline of more than 80 % in less than 20 years. Despite epidemiological models that

predict extinction, populations in long-diseased sites persist. Here we report rare genomic evidence of a rapid, parallel evolutionary response to strong selection imposed by a wildlife disease. We identify two genomic regions that contain genes related to immune function or cancer risk in humans that exhibit concordant signatures of selection across three populations. DFTD spreads between hosts by suppressing and evading the immune system, and our results suggest that hosts are evolving immune-modulated resistance that could aid in species persistence in the face of this devastating disease.

Energie

Janko 2016

Samantha A. Janko, Michael R. Arnold & Nathan G. Johnson, *Implications of high-penetration renewables for ratepayers and utilities in the residential solar photovoltaic (PV) market*. Applied Energy **180** (2016), 37–51.

Residential energy markets in the United States are undergoing rapid change with increasing amounts of solar photovoltaic (PV) systems installed each year. This study examines the combined effect of electric rate structures and local environmental forcings on optimal solar home system size, ratepayer financials, utility financials, and electric grid ramp rate requirements for three urban regions in the United States. Techno-economic analyses are completed for Chicago, Phoenix, and Seattle and the results contrasted to provide both generalizable findings and site-specific findings. Various net metering scenarios and time-of-use rate schedules are investigated to evaluate the optimal solar PV capacity and battery storage in a typical residential home for each locality. The net residential load profile is created for a single home using BEopt and then scaled to assess technical and economic impacts to the utility for a market segment of 10,000 homes modeled in HOMER. Emphasis is given to intraday load profiles, ramp rate requirements, peak capacity requirements, load factor, revenue loss, and revenue recuperation as a function of the number of ratepayers with solar PV. Increases in solar PV penetration reduced the annual system load factor by an equivalent percentage yet had little to no impact on peak power requirements. Ramp rate requirements were largest for Chicago in October, Phoenix in July, and Seattle in January. Net metering on a monthly or annual basis had a negligible impact on optimal solar PV capacity, yet optimal solar PV capacity reduced by 20–50 % if net metering was removed altogether. Technical and economic data are generated from simulations with solar penetration up to 100 % of homes. For the scenario with 20 % homes using solar PV, the utility would need a 16 %, 24 %, and 8 % increase in time-of-use electricity rates ($ / kW h) across all ratepayers to recover lost revenue in Chicago, Phoenix, and Seattle, respectively. The $ 15 monthly connection fee would need to increase by 94 %, 228 %, or 50 % across the same cities if time-of-use electricity rates were to remain unchanged. Batteries were found to be cost-effective in simulations without net metering and at cost reductions of at least 55 %. Batteries were not cost-effective—even if they were free—when net metering was in effect. As expected, Phoenix had the most favorable economic scenario for residential solar PV, primarily due to the high solar insolation.

Keywords: Energy economics | Residential solar | Solar photovoltaic (PV) | Net metering | Electricity rates | Techno-economic optimization

Grabung

Meyer 2013

Christian Meyer et al., *Eine komplexe Mehrfachbestattung der Salzmünder Kultur*. In: Harald Meller (Hrsg.), *3300 bc: Mysteriöse Steinzeittote und ihre Welt, Sonderausstellung vom 14. November bis 18. Mai 2014 im Landesmuseum für Vorgeschichte Halle*. (Halle 2013), 290–299.

Christian Meyer, Sarah Karimnia, Corina Knipper, Marcus Stecher, Guido Brandt, Björn Schlenker, Frank Ramsthaler und Kurt W. Alt

Judentum

Kiel 2012

Yishai Kiel, *Redesigning Tzitzit in the Babylonian Talmud in Light of Literary Depictions of the Zoroastrian Kustig*. In: Shai Secunda & Steven Fine (Hrsg.), *Shoshannat Yaakov, Jewish and Iranian Studies in Honor of Yaakov Elman*. (Leiden 2012), 185–202.

The affinity that exists between the BT and the Pahlavi literature in this regard suggests that while they were striving to define their uniqueness within this cultural framework, the Babylonian rabbis shared inherent structures of meaning and ritual symbolism with their surroundings. They were not so much "influenced" by Zoroastrianism as much as they were part and parcel of the Sasanian culture and its inherent religious symbolism. Perhaps "fuzziness" of religious boundaries can serve as a valid description for a cultural situation, in which the tzitzit and the kustg share so much in common. Rather than speaking, then, of external "influences" on practices and beliefs that were held by the Babylonian rabbis, one ought to acknowledge the existence of a common cultural milieu and perhaps even a shared discourse, in which both rabbis and dastwars—the creators of the BT and the Pahlavi corpus—were intrinsically engaged.

Kiel 2014

Yishai Kiel, *Study Versus Sustenance, A Rabbinic Dilemma in its Zoroastrian and Manichaean Context*. AJS Review **38** (2014), 275–302.

Ascetic systems commonly exhibit some sort of conflict between spiritual pursuits and mundane needs. This article contextualizes the particular rabbinic dilemma of study versus sustenance within the broader context of the Zoroastrian tradition and its critique of the Manichaean Elect. The rabbis shared with their Zoroastrian contemporaries not only the perception of a religious tension between agriculture and the pursuit of religious studies, but also a multifaceted array of possible solutions that attempt to harmonize, mitigate, or otherwise resolve this theological and practical tension. While the basic conflict between study and sustenance is already formulated in tannaitic works, it is argued that the unique perspective offered by the Babylonian Talmud engages, and perhaps reacts to, the Iranian tradition.

Kiel 2014

Yishai Kiel, *Confessing Incest to a Rabbi, A Talmudic Story in Its Zoroastrian Context*. Harvard Theological Review **107** (2014), 401–424.

Regardless of the polemical or receptive nature of the passage, the fascinating Irano-talmudic connections displayed in this context reveal the fruitfulness of a

contextual and synoptic study of the Babylonian Talmud against the backdrop of Pahlavi literature. Be the nature of the intercultural contact as it may, the talmudic passage can be signiicantly illuminated by its juxtaposition with the Zoroastrian notion of confession to a rad, the role of the rad in determining the penitential requirements for sins deserving death, the signiicance of incestuous relations in the Zoroastrian penitential system, the idea that xwēdōdah cancels a death sentence, and the fascinating connections between incest and heresy.

Jungpaläolithikum

Maier 2016

Andreas Maier et al., *Demographic estimates of hunteregatherers during the Last Glacial Maximum in Europe against the background of palaeoenvironmental data*. Quaternary International (2016), preprint, 1–13. DOI:10.1016/j.quaint.2016.04.009.

Andreas Maier, Frank Lehmkuhl, Patrick Ludwig, Martin Melles, Isabell Schmidt, Yaping Shao, Christian Zeeden & Andreas Zimmermann

During the Last Glacial Maximum, ca. 25,000 to 20,000 calBP, the settlement remains of European hunter-gatherers show a patchy pattern with clusters of sites in some regions and no reported settlement in others. Using a density-based upscaling approach, we calculate regionally differentiated population densities. To test our results and assess possible biases, we compare the spatial distribution of sites against environmental preference scores derived from palaeoclimate model data and loess/forest distributions. We find pronounced demographic differences between Western Europe and eastern Central Europe that coincide with different environmental preferences: cool temperate conditions in theWest as opposed to colder and drier conditions in the East. Comparatively few people and an adaptation to cold and dry conditions eventually may have led to an extinction of the local population in western Central Europe around 22,000 calBP.

Keywords: Last glacial maximum | Palaeoclimate | Palaeodemography | Upper palaeolithic | HuntereGatherers

Klima

Jung 2015

Reinhard Jung & Bernhard Weninger, *Archaeological and environmental impact of the 4.2 ka cal BP event in the central and eastern Mediterranean*. In: Harald Meller, Helge Wolfgang Arz, Reinhard Jung & Roberto Risch (Hrsg.), *2200 BC – Ein Klimasturz als Ursache für den Zerfall der Alten Welt? 7. Mitteldeutscher Archäologentag vom 23. bis 26. Oktober 2014 in Halle (Saale)*. Tagungen des Landesmuseums für Vorgeschichte Halle 12 (Halle 2015), 205–234.

We present results pertaining to the potential impact of the “4.2 ka cal BP climate event” in the eastern Mediterranean, with special focus on the Early Bronze Age (EBA) in north-western Anatolia, the southern Aegean, and Italy. We approach this topic against the background of mutual contacts between these areas and by analysing the historical development of these contacts. To begin, we provide an overview of the current state of research on the “4.2 ka cal BP event” both on a global scale and for the Mediterranean basin. In an effort to combine

the available paleoclimate knowledge with results of recent paleoenvironmental research then, in more detail, the relative (mainly pottery-based) and absolute (14C-based) chronology of some important archaeological sites in these regions is studied. Theses studies are the first to move beyond the traditional archaeological treatment of the "4.2 ka cal BP climate event" in the Mediterranean regions, where the event's name is often used at face value for dating purposes.

In diesem Beitrag werden Untersuchungen zu den möglichen Auswirkungen des "4,2 ka cal BP Klimaereignisses" im östlichen Mittelmeerraum vorgestellt, wobei der Schwerpunkt auf die frühbronzezeitlichen Fundorte in Nordwestanatolien, der süd lichen Ägäis und Italien gelegt wird. Vor dem Hintergrund von gegenseitigen Kontakten zwischen den genannten Gebieten wird das Thema anhand einer Untersuchung der historischen Entwicklung dieser Kontakte beleuchtet. Zuerst wird ein Überblick über den aktuellen Forschungsstand zum "4,2 ka cal BP Ereignis" gegeben, einerseits auf globaler Ebene und andererseits in Bezug auf das Mittelmeerbecken. Nach einer Zusammenschau der vorhandenen paläoklimatischen Daten und der Resultate von unlängst publizierten Analysen zur Umwelt der damaligen Zeit, wird in einem weiteren Schritt versucht, die relative (vor allem auf Keramik beruhende) und absolute (auf 14C-Daten beruhende) Chronologie einiger wichtiger Fundstellen in den genannten Gebieten aufzuarbeiten. In diesen Untersuchungen wird erstmals über die traditionelle archäologische Behandlung des "4,2 ka cal BP Klimaereignisses" im Mittelmeerraum hinaus gegangen, bei der die Bezeichnung des Ereignisses oftmals als feststehender Begriff und als Datierungsmittel verwendet wird.

Passchier 2016

Cornelis Passchier, Gül Sürmelihindi & Christoph Spötl, *A high-resolution palaeoenvironmental record from carbonate deposits in the Roman aqueduct of Patara, SW Turkey, from the time of Nero.* Scientific Reports **6** (2016), 28704. DOI:10.1038/srep28704.

An inscription on the supporting wall of the inverted siphon of the aqueduct of the ancient Roman city of Patara, SW Turkey, explains how the wall collapsed during an earthquake and was subsequently restored. Carbonate deposits formed inside the aqueduct channel show cyclic stable isotope changes representing 17 years of deposition. This sequence, together with the text of the inscription, allows dating the earthquake to 68 AD and the original inauguration of the aqueduct to the winter of 51/52 AD. Thus, the carbonate deposits represent a high-resolution record of palaeotemperature and precipitation for SW Turkey covering the complete reign of the Emperor Nero. The period shows a cooling and drying trend after an initial warm and more humid period, interrupted by a few anomalous years. These 2 cm of calcite highlight the significance of carbonate deposits in ancient water supply systems as a highresolution archive for palaeoclimate, palaeoseismology and archaeology.

Swann 2016

Abigail L. S. Swann, Forrest M. Hoffman, Charles D. Koven & James T. Randerson, *Plant responses to increasing CO2 reduce estimates of climate impacts on drought severity.* PNAS **113** (2016), 10019–10024.

Rising atmospheric CO2 will make Earth warmer, and many studies have inferred that this warming will cause droughts to become more widespread and severe. However, rising atmospheric CO2 also modifies stomatal conductance and plant water use, processes that are often are overlooked in impact analysis. We find that plant physiological responses to CO2 reduce predictions of future drought

stress, and that this reduction is captured by using plant-centric rather than atmosphere-centric metrics from Earth system models (ESMs). The atmosphere-centric Palmer Drought Severity Index predicts future increases in drought stress for more than 70 % of global land area. This area drops to 37 % with the use of precipitation minus evapotranspiration (P-E), a measure that represents the water flux available to downstream ecosystems and humans. The two metrics yield consistent estimates of increasing stress in regions where precipitation decreases are more robust (southern North America, northeastern South America, and southern Europe). The metrics produce diverging estimates elsewhere, with P-E predicting decreasing stress across temperate Asia and central Africa. The differing sensitivity of drought metrics to radiative and physiological aspects of increasing CO2 partly explains the divergent estimates of future drought reported in recent studies. Further, use of ESM output in offline models may double-count plant feedbacks on relative humidity and other surface variables, leading to overestimates of future stress. The use of drought metrics that account for the response of plant transpiration to changing CO2, including direct use of P-E and soil moisture from ESMs, is needed to reduce uncertainties in future assessment.

Keywords: drought | global warming | climate impact | evaporation | global hydrology

Significance: We show that the water savings that plants experience under high CO2 conditions compensate for much of the effect of warmer temperatures, keeping the amount of water on land, on average, higher than we would predict with common drought metrics, and with a different spatial pattern. The implications of plants needing less water under high CO2 reaches beyond drought prediction to the assessment of climate change impacts on agriculture, water resources, wildfire risk, and vegetation dynamics.

Kultur

Ciugudean 2010

Horia Ciugudean, *Piesele de aur din depozitul Cugir I şi relaţia lor cu sistemele metrologice din Bronzul târziu*, *The gold rings of the Cugir hoard and their relation to the Late Bronze weight systems*. Apulum **47** (2010), 23–40.

The presence of fragmentary objects in hoards has been widely debated and analysed. Several explanations have been provided, ranging from “scrap metal”, meant to be recycled and therefore kept close to workshops, to ritual decommissioning during ceremonies of mystical violence. Last but not least, they were also assigned a possible “monetary” value, in that they may have formed a weighing system. The impressive quantity of sickles omnipresent in hoards has mainly determined researchers to connect them to a pre-monetary system. But in order for such a pre-monetary system to work, it had to build upon a common weight base. Considerable efforts have been made to identify such a weight system over the past few decades. However, such attempts that started from weighing each individual fragment from bronze hoards have been only partly successful so far.

There are relatively few Romanian hoard studies of this kind, which have extended their consideration to the weight of artifacts, according to their category, and have focused mainly on fragments. Local researchers have mostly concentrated on typology and chronology.

The weight analysis of the gold ingot rings from the Cugir I hoard, which were intentionally fragmented, has provided us with surprising results. Of the 24 items, weighing a total of 287.23 grams, only eight (i.e. a third) are intact. The rest of

them are cut at one or both ends, or even fashioned into small bars. Upon a simple visual analysis, the cutting marks made by a narrow blade chisel become obvious. In some cases, the same fragment was partially cut, only to be re-severed a few millimeters away, in order to obtain a piece of a specific size, or rather a desired weight.

According to their weight, the gold pieces from Cugir fall into two clear categories. The first group is that of items weighing between between 5.19 and 6.8 gr., for which an average weight would be approx. 6.14 +/- 0,5 gr. In the second category, the fragments have a weight between 12.77 and 13.47 grams, in which case (taking into account an error margin of approx. +/0.5 gr.) the standard weight is circa 13.0 +/- 0.5 gr. (i.e. double that of the first group). We could even point out a third group, which includes two smaller pieces weighing between 3.15 and 3.43 gr., half the weight of the first category. A parallel could be drawn between this hoard and others from Transylvania and Banat, which have fragmentary items of the same standards, just like in the case of the hoards from Sacosu Mare, Cauas and Hinova.

The rhombic section ring ingots from Cugir are part of a widely spread group of gold artifacts that have been found either in hoards or isolated throughout the Central and Western Transylvania, as well as Banat and North-Eastern Hungary, within a clearly delimited area. The weight analysis of the ring ingots from Cugir confirms and consolidates the results previously obtained in several reference studies of gold artifacts from Late Bronze hoards from Central and South-Eastern Europe.

Keywords: Transylvania | Late Bronze Age | gold | weight standards | prehistoric weighing.

Physik

Mann 2016

Adam Mann, *The curious case of the gravitational constant*. PNAS **113** (2016), 9949–9952.

More than 200 years after it was first measured, this fundamental property of our universe continues to confound.

These two divergences seem small, but in the field of high-precision metrology they are indeed significant. “In particle physics, if you have an anomaly in your signal that’s five times the error bars, or five-sigma as they say in statistics, then you can claim discovery of a new effect,” says Müller. “The disagreement in the measurements of Big G passes that threshold.”

Politik

Jones 2016

Steven Jones, Robert Korol, Anthony Szamboti & Ted Walter, *15 Years Later, On the physics of high-rise building collapses*. Europhysics News **47** (2016), iv, 21–26.

On September 11, 2001, the world witnessed the total collapse of three large steel-framed high-rises. Since then, scientists and engineers have been working to understand why and how these unprecedented structural failures occurred.

It bears repeating that fires have never caused the total collapse of a steel-framed high-rise before or since 9/11. Did we witness an unprecedented event three separate times on September 11, 2001? The NIST reports, which attempted

to support that unlikely conclusion, fail to persuade a growing number of architects, engineers, and scientists. Instead, the evidence points overwhelmingly to the conclusion that all three buildings were destroyed by controlled demolition. Given the far-reaching implications, it is morally imperative that this hypothesis be the subject of a truly scientific and impartial investigation by responsible authorities.