From Aab to Zeph Greek—and everything Crimson in between
by John T. Bethell, Richard M. Hunt, and Robert Shenton
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When Raktaprachit Aab '13, A.M. '14, of Bangkok, enrolled in the College in 1909, the journey from home to Harvard took six weeks by ship and rail. As if commemorating his labors (but in fact because of alphabetic good fortune), Aab became the first listing in Harvard's first official directory (1910), later the alumni directory—a status he maintained for 80 years.

Now, 15 years after his death, Aab again holds the flagpole position, as the initial entry in Harvard A to Z, just published by Harvard University Press, an "unofficial guide…meant for browsing," by a trio of authors whose combined Harvard service exceeds even Aab's long run: Richard M. Hunt, Ph.D. '60, University Marshal from 1982 to 2002 and a faculty member for 42 years; Robert Shenton, Ph.D. '62, Secretary to the Governing Boards from 1971 to 1991 and Hunt's original collaborator, until his death in 2003; and John T. Bethell '54, who then brought to the team the expertise he had accumulated as editor of Harvard Magazine from 1966 to 1994 and as author of Harvard Observed (1998).

The book's penultimate honors fall to "Zeph Greek," the electronic typeface introduced in 1995 by the University Press for its renewed editions in the Loeb Classical Library (some 500 Greek and Latin texts). The font honors Zeph Stewart, Mellon professor of the humanities emeritus, trustee of the Loeb foundation since 1973. (The terminal entry is a glossary of Harvard speak, from "Ad Board" to "Yardling").

Between are such essentials as the authors' pick for best Hollywood working of a Crimson theme (Brown of Harvard, debuting John Wayne, ranks highest; forget Love Story); the "X Cage" (for the libraries' naughtier holdings, now secure in the Harvard Depository in Southborough, and available on request); and "Firsts" (aeronaut: Dr. John Jeffries, class of 1763, across the English Channel by balloon in 1785).

Those interested in Harvard propriety will relish the authors' inclusion, under "Fashion," of the limerick duel over coat-and-tie rules at the Faculty Club. Entry one, from classicist and former Eliot House master John H. Finley Jr., runs:
Though drawn by Lysippus and Myron,
And often displayed by Lord Byron,
The masculine throat
Is small object of note:
It looks brighter with tighter attire on.

Penelope Laurans, then a doctoral candidate in English, trumped the old lion thus:
True, Byron was shockingly bred.
Still, at Harvard (have I been misled?)
I've been brought up to note
That what's outside the throat
Matters less than what's inside the head!

For those to whom the winning verse does not ring true, the authors also kindly include, in "Extinct Harvard," a 1909 verse by Judge Robert Grant, class of 1873, LL.B. 1879, immortalizing the "gentleman's C." It reads, in part,
The able-bodied C man! He sails swimmingly along,
His philosophy is rosy as a Skylark's matin song,
The light of his ambition is respectably to pass,
And to hold a firm position in the middle of his class.

At a time of College curriculum revision and fretting about grade inflation, the C man's advice, from Raktaprachit Aab's era, may even seem eerily au courant: "A skillful choice of studies makes one's afternoons all free; / The chief merit of electives to the man who aims at C."

Cum laude or without, any Harvardian will find something resonant among the 159 essays, sober and silly, in Harvard A to Z. Herewith, a selection from the vowel chapters. ~The Editors

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result of two vigorous sonnets by [Oliver Wendell Holmes Jr.] read before the Harvard Club of New York, Veritas was brought forth once more. President Eliot took up the cause, and the Corporation re-adopted the seal of 1843. Plain shields with 'Veritas' inscribed on the three books appeared around 1913, when Harvard University Press began using them on title pages. Over the next half-century, noted graphic designers—among them William Dwiggins, Bruce Rogers, Pierre la Rose (class of 1895), and Rudolph Ruzicka—tried their hands at restyling Harvard's arms. La Rose's and Ruzicka's designs are still in frequent use.

In heraldic terms, the arms are formally described as "Gules, three open books Argent, edges, covers, and clasps on the books Or, on the books the letters 'Veritas' Sable." In a triptych over the stage of Sanders Theatre, the upper books lie open; the lower one is inverted. The customary interpretation is that the open books symbolize existing knowledge, while the third stands for what remains unknown. In other treatments, the three books are shown face up.

Used throughout the University, the acronym ETOB stands for "Every Tub on its Own Bottom." This axiom, coined in the early nineteenth century, is the bedrock of a highly decentralized system of financial management.

In Harvard parlance, a tub is a high-level institutional unit—one of the 10 faculties, for example, or the central administration. All told, there are 52 tubs and countless sub-tubs. Each tub is expected to be self-financing: to prepare its own budgets, raise its own funds, and keep itself solvent.

Though the University has no central budget, it does, paradoxically, have a central Budget Office. That office reviews the proposed budgets of the tubs and submits them to the Harvard Corporation, adding its recommendations for approval. The Corporation traditionally approves only individual budgets, not an aggregate for the University as a whole. And although the Budget Office compiles University-wide figures, it does so for informational—not operational—purposes.

In theory, the central administration bears no responsibility for the solvency of any faculty, museum, or other University institution. In actuality, there are times when it does intervene. Examples might include founding a new institute or research center, rescuing a school or program that is experiencing protracted financial trouble, or subsidizing essential activities that cannot otherwise be supported. In some cases the administration acts as banker and makes loans, at interest, to a needy faculty or institution. In other cases it may make outright grants from its own funds.

The smaller schools—Design, Divinity, and Education—are most likely to need periodic help. At the other end of the spectrum is the School of Business Administration. Though the Faculty of Arts and Sciences and the Medical School have larger endowments, the Business School’s is spread over a smaller operational unit, and the school has amply demonstrated its ability to attract outside funds from well-heeled graduates and asset-heavy corporations. A faculty’s reliance on outside (or “soft”) money is an important index of its financial well-being. Outside gifts and grants make up less than one-third of the income stream of the Faculty of Arts and Sciences, with the federal government providing about 13 percent of that amount. In contrast, the School of Public Health receives 84 percent of its income from outside sources, and governmental support accounts for 43 percent of the funding. In general, the Corporation is tough-minded in its insistence on a positive bottom line and in its reluctance to intervene unless the situation is serious indeed.

The development of ETOB as an institutional policy has never been documented in detail. The term evidently originated.
during the presidency of John Thornton Kirkland (1810–1828). Declining to weigh in on the siting of a new building, Kirkland is said to have stated that “it is our practice here for every tub to stand on its own bottom.” The chief justification for the system is that it encourages initiative and self-reliance. It also gives the various faculties the utmost freedom to pursue their academic goals as they see fit. Among the negative aspects of ETOB are the territorial jousting that impedes interaction among faculties and fosters duplication of academic effort. ETOB also means that the central administration has far less authority than it otherwise might. Finally, the system is fussy and bureaucratic; the internal billing and transfer procedures are onerous and at times may be carried to what may seem absurd extremes. But in dollars-and-cents terms, as a means of achieving and maintaining collective financial responsibility, ETOB works well overall. In fiscal year 2002, operating income for the University as a whole was $2.357 billion; expenses came to $2.287 billion, and the books thus showed an unrestricted operating surplus of almost $70 million.

More than a decade before formal league play was organized, the New York Herald Tribune sportswriter Stanley Woodward used the phrase “ivy colleges” to describe nine schools—Brown, Columbia, Cornell, Dartmouth, Harvard, Pennsylvania, Princeton, the U.S. Military Academy at West Point, and Yale—that had nurtured the game of football, had engaged in longstanding athletic rivalries, and had buildings with ivy-covered walls. That was in the fall of 1933. Associated Press sports editor Alan Gould has been credited with the first use of “Ivy League” in February 1935.

Concerned about the professionalization of college football, eight college presidents met in 1945 to sign an “Ivy Group Agreement” (West Point was not represented). Affirming that their football programs should be “in fitting proportion to the main purpose of academic life,” the presidents ruled out athletic scholarships, pledged to uphold joint standards for financial aid and eligibility, and formed a standing committee whose members included the colleges’ directors of athletics. In 1952, the Ivy Group voted to abolish spring football practice and banned postseason games; two years later its members agreed to extend their policies to all intercollegiate sports and announced the inception of formal Ivy League football competition. Round-robin play began in the fall of 1956.

In subsequent decades, the Ivy Group created formal programs for women’s teams, reluctantly accepted a National Collegiate Athletic Association ruling that made freshmen eligible for varsity teams; restored limited spring football practices (also reluctantly); and adopted an “academic index” that pegged admissions standards for athletes to grade point averages for the schools’ students as a whole.

Despite the league’s relatively strict standards, the eight schools have succeeded in attracting accomplished student-athletes and achieving a high level of competition and parity. Princeton now boasts the largest number of league championships in all sports, followed closely by Harvard. Next, in descending order, come Pennsylvania, Yale, Cornell, Dartmouth, Brown, and Columbia. Former Ivy athletes have gone on to distinguish themselves in the professions, business, entertainment, politics, and occasionally in professional sports. In one recent season, there were nine former Ivy Leaguers on National Football League rosters.

The Ivy Group—now officially known as the Council of Ivy Group Presidents—maintains an office staff in Princeton, New Jersey. “Ivy League,” however, has achieved currency as a shorthand term for the eight participating institutions in the aggregate, and as a descriptive denoting a more or less acceptably elitist manner and a conservatively natty style of dress. It thus lends itself to an adjectival formation, as in “That fellow doesn’t look Ivy to me.”


The sometimes cloudy skies of Cambridge aren’t always conducive to exploring the heavens. But the Harvard College Observatory (HCO) on Observatory Hill, at 60 Garden Street in Cambridge, remains a popular place for stargazing on the third Thursday of every month throughout the year. On those evenings, the Harvard-Smithsonian Center for Astrophysics (CFA) sponsors free programs, open to the public, of lectures and then telescopic viewing of the skies from the Observatory roof—if the weather obliges. When it does, visitors may see Saturn, Jupiter, or objects like the Orion Nebula up close, through the Observatory’s nine-inch Clark refractor telescope and also through three portable...
telescopes, all eight-inch reflectors. Attendance at these viewings often reaches more than 200, and many visitors find them an awe-inspiring experience.

Founded in 1839, the HCO provides research facilities for faculty and students in the department of astronomy in the Faculty of Arts and Sciences. The HCO and the Smithsonian Astrophysical Observatory together form the CFA, which involves more than 300 scientists engaged in astrophysical research. These scientists have pioneered in the development of instrumentation for observatories on the ground and in space, covering virtually the whole electromagnetic spectrum.

At the Harvard-Smithsonian Center’s Oak Ridge Observatory in Harvard, Massachusetts, astronomers search for evidence of planets around other stars and for signals from extraterrestrial beings. On the eighth floor of Harvard’s Undergraduate Science Center, a small but well-equipped observatory is used primarily by students.

In the first half of the twentieth century, Harvard astronomical stations made observations in Peru and, later, in South Africa.


There’s more to Harvard than meets the eye. Much goes on underground. Most of the University’s infrastructure—giant boilers, steam lines, intricate electrical and telephone relays, servomechanisms, and metering instruments—is below ground level. Without complex networks of steam and food tunnels, water mains, sanitary and storm drainage systems, the daily life of the place would grind to a halt. And what would Harvard be like without the subway line that has linked it to Boston since 1912? As opportunities for aboveground expansion diminish, Harvard burrows downward to create spaces for library and museum collections, academic and administrative offices, classrooms, eating places, and parking. Parts of Harvard’s underworld are open only to operating engineers and maintenance workers. Others are in constant use by the University community.

The biggest and busiest underground space isn’t Harvard’s. It’s the cavernous Harvard Square subway station, greatly enlarged in the 1980s. The University’s new North Precinct parking garage and a chilled-water plant in the Undergraduate Science Center are the next-largest subterranean spaces. At the other end of the scale would be any of the 300-odd electrical and utility manholes dotted around the environs of Harvard Yard and the more distant Business and Medical school campuses. Somewhere in between come the tunnels. The Cambridge-Allston steam tunnels—largest of a half-dozen separate systems—incorporate some five miles of underground passageways and pipe trenches.

The Harvard Square subway station was renovated as part of a $586 million construction project that extended the northern terminus of the Massachusetts Bay Transit Authority’s Red Line from Cambridge through Somerville to Alewife Station. The old station was demolished and replaced by a vast lobby, more than three stories deep, with rounded walls, a large mezzanine area, and merchandising stalls. In addition to subway platforms, the station houses a terminal serving diesel buses and trackless trolleys; the busway boasts a notable stained-glass mural by the late Gyorgy Kepes, founder and former director of MIT’s Center for Advanced Visual Art. Disused platforms of the old subway station can be dimly discerned from Red Line trains running to or from Boston; a stretch of abandoned tunnel leads under Harvard and Brattle squares toward what once was an aboveground car yard. When that yard was relocated as part of the Red Line extension, Harvard acquired the 12-acre property as a site for the Kennedy School of Government complex.

Back to the nether regions. The capacious North Precinct un-
derground garage is a key piece in an ambitious development plan for the area north of the University Museum. To make way for much-needed science laboratories, administrators opted to expropriate almost 600 surface parking spaces and replace them below ground level. The new garage occupies land where the Cambridge Electron Accelerator, the Harvard Cyclotron, the High Energy Physics Laboratory, and the Palfrey House previously stood. The high-energy physics centers, long obsolete, were demolished; the Greek Revival Palfrey House, built in 1831, will now occupy a site not far from its original location. The North Precinct garage, with space for 730 cars, was designed to serve as a deck supporting new lab buildings.

In cubic volume, Harvard's chilled-water plant in the Science Center's sub-basement is about two-thirds the size of Boston's Symphony Hall. From two rooftop cooling towers, chilled water cascades down to the plant through pipes three feet in diameter; the facility serves the air-conditioning and process-cooling needs of some 70 University buildings in Cambridge. In the [spring of 2004] ground [will be] broken behind the Science Center for a 135,000-square-foot Laboratory for Interface Science and Engineering, with facilities for vibration-sensitive research in mesoscale and nanoscale science. Two-thirds of the new building will be underground.

The Radcliffe Quadrangle, the Law School, and the Business School each have tunnel systems for the movement of goods and services. The river Houses are joined by a quarter-mile-long service tunnel originally created to deliver food from the central kitchen on JFK Street. Subterranean Harvard's most picturesque promenades, however, are the tunnels of the Cambridge Steam Distribution System. Largely constructed in the late 1920s, this labyrinthine network brings high-pressure steam to about 200 buildings in Cambridge and Allston. As in President Lowell's day, much of Harvard relies on steam for space heating and hot water; the larger kitchens use it for cooking, and laboratories must have it on tap. Starting from the Blackstone generating plant at Western Avenue and Memorial Drive, the system's main tunnel leads to the Houses and to Harvard Yard, branching off to the Business School via the Weeks Bridge. Created before the advent of remote monitoring devices, these tunnels had to allow headroom and working space for crews inspecting the system's countless pipe joints, pressure gauges, meters, and shutoff valves. Until 1988, when construction of the Cambridge Street underpass blocked off the main tunnel as it left the Yard, it was possible—with a bit of a crawl here and there—to take a subterranean stroll from the Business School to the Law School (and almost to the present site of the Northern Precinct parking garage). A stroller, however, would have emerged mopping his or her brow. Ambient temperature in the tunnels hovers around 100 degrees, and peaks as high as 140 degrees have been recorded.

Chronic space squeezes have driven the conversion of many Harvard Yard basements into office, classroom, and storage areas. A generation ago, the University News Office occupied cramped quarters in the basement of University Hall; until 1992, its photo lab was in Weld Hall's basement. The architects of more recent buildings have not overlooked the potential of below-grade space. The Science Center's lower level houses computer labs and electrical and machine shops. Pusey Library, with its Map Collection, Theatre Collection, exhibition areas, University Archives, and faculty offices, is almost wholly underground. Since that library's completion in 1973, Widener, Pusey, and Lamont libraries have been linked by underground tunnels.