Vivien's career expanded far beyond the University of Sussex. She was a visiting professor at Smith College and at Ohio State University, and held fellowships and scholarships from the American Council of Learned Societies, Massey College of Toronto University, the United States Institute of Peace, the Woodrow Wilson International Center for Scholars, and the Brookings Institution.

Vivien's pleasures and enthusiasms were many, and included her love of the outdoors, fondness for music and food, the reading of detective novels, and, most of all, her family and friends. These pleasures allowed her to play the academic game of "never too busy to talk to you" and "let's have another cup of coffee" when, in reality, she was one of the most dedicated and conscientious of colleagues and teachers. She was a thoughtful mentor to many students and colleagues both at home and abroad.

The following pleasures also leave us with cherished memories.

Outdoors: She organized and chaired a prestigious international conference at the Rockefeller Center in Bellagio, yet found time every day for a walk in the surrounding countryside?

Music: Her love of music is well known but how many were aware of her secret passion for American musicals, not Rodgers and Hammerstein, more Rodgers and Hart, and Cole Porter?

Food and wine: She could recite the menu at a Michelin three-star restaurant that she shared with her friends the Keefers over 20 years ago. More recently, she took great delight in the 10 euro lunches in southwest France. Vivien was a practicing helixophile—a collector of corkscrews to you and me.

Detective stories: Her taste paralleled her career. When I first met Vivien in 1974 she was reading *Rex Stout*, whose detective, Nero Wolfe, was a great foodie and orchid grower. She moved on to Robert B. Parker, whose private eye, Spenser, fought for justice in Cambridge, Massachusetts. There have been many others since, but none more so than Sarah Paretsky's tough female private eye, V.I. Warhawski.

Vivien did "grumpy": but then universities provide great opportunities for doing so.

Vivien will be fondly remembered by her family and many dear friends. A thoughtful mentor to many students and colleagues both at home and abroad. An enthusiastic world traveler as well as an energetic hiker.

Joyce Gelb

SAM HUNTINGTON

Sam Huntington's works were taken seriously by political leaders and informed publics around the world. He served in government and advised administrations, both Republican and Democratic. But if you asked Sam who he was, professionally, he would have said, I am sure, "I am a social scientist."

His total commitment to social science was visible in many ways. He was tremendously proud that Political Order and Changing Societies was for many years the most frequently cited work in political science. I remember him working for weeks to perfect the message of his speech as president of the APSA that social scientists have an obligation to truth and to the larger political communities they belong to, because their ideas can have great importance. While open to and interested in the work of historians, he strongly believed that historians and political scientists had different callings. He engaged one of the leading historians of the American Revolution in a (barely) polite but unrelenting public debate, because the historian challenged, not only the historical accuracy of the argument made by Louis Hartz in his book The Liberal Tradition, but also the legitimacy of making generalizations across time and space to explain the origins and consequences of that revolution.

The importance of making such generalizations and testing them was overwhelming for Sam. It was not enough to know the particular, however important that was. He told with pride a story about an argument he had had with a policymaker, about the incidence of future coups in a country that had just had its first coup. The policymaker said, "I know this country, I have lived here and worked here for years. People want things to settle down." Sam, recounting the incident, said, "but I knew empirically that across countries at this level of institutionalization, the first coup leads to an increased expectation that coups can succeed, so that after the first coup there will be a second coup and a third coup. And I was right." Up until the end of his working days, the highest praise he could think to bestow on a book or an article was, "this is a first class work of social science."

Because he was so committed to social science, he could be stern towards those less disciplined. One brilliant academic was being considered for a university position on the strength of his written work. Sam was opposed. "Will he train graduate students in social science?" he asked, throwing up his chin, and raising his eyebrows, implying that the academic in question would never do so in a million years, and so should not be hired. And woe to any academic, young or old, in whose work Sam found any intellectual sloppiness. Sam would not tolerate it, as he did not tolerate it in himself. I know of at least one 250-page manuscript that Sam wrote and never circulated because it was not up to his standards. He dropped another fascinating research project when, after a year or more or work, he judged that his arguments simply did not stand up to his own critical scrutiny.

I can think, therefore, of nothing I could say that would please Sam more than to call him the greatest American social scientist of his generation.

> Stephen Rosen Beton Michael Kaneb Professor of National Security and Military Affairs Harvard University

WILLIAM W. KAUFMANN

William W. Kaufmann died on December 14, 2008, in his sleep, at the age of 90. During the cold war, he was a key figure among the "defense intellectuals"—less famous but more influential than most—who moved freely from think tanks to the Pentagon to academia and back again, crafting the theories of nuclear deterrence and translating them to policy. Yet by the '80s, in the final, rococo phase of the standoff, he'd come to reject much of his old thinking and emerged, quite publicly, as one of the defense establishment's most accredited critics.

He served as special assistant to the secretary of defense in every administration from John F. Kennedy's to Jimmy Carter's all the while spending every Thursday and Friday at the Massachusetts Institute of Technology, where he taught the art and science of defense planning to 20 years' worth of graduate students, many of whom went on to prominent positions in the field themselves. (Only during the Cuban missile crisis did he fail to make it back to Cambridge for classes.) After retiring from MIT in 1981, he split his time between teaching at Harvard and writing monographs on the military budget at the Brookings Institution.

It was during his time at Brookingsaway from the Pentagon and observing from afar the Reagan administration's extravagant weapons spending-that he started to speak out as a skeptic. He called for cutting the defense budget by 50%, not out of a particularly dovish persuasion but rather as the result of hardnosed calculations, delving into how many planes, tanks, ships, and so forth do we really need to fill not the services' parochial interests but the national-security needs. He was also appalled by the unseemly enthusiasm that many Reagan officials displayed toward the notion of "limited nuclear war," a notion that a quarter-century earlier he'd helped devise.

He and I talked about his change in thinking at the time. (I had been one of his grad students in the mid-seventies and subsequently kept in touch, as both a friend and as a journalist seeking insights.) He explained that, amid the intense ambience of the RAND Corporation or the Pentagon, "it was easy to get caught up in the whole nuclear business. You could eat and breathe the stuff ... Then you'd move away from it for a while, look at it from a distance, and think, 'God, that's a crazy world.'"

Bill was born on November 10, 1918, in New York City. When he was 10, his father died of a heart attack, but the family was wealthy enough to send him to Choate, where one of his classmates was John Kennedy, the future president. He attended college at Yale (Class of '39), then worked for a year on Wall Street before the war started and he was drafted into the Army Air Forces, though he never saw combat. After the war, he returned to Yale for graduate school.

Yale's Institute of International Studies—whose faculty included Klaus Knorr, Jacob Viner, William T.R. Fox, and his mentor Bernard Brodie—was one of the few American centers of international realism. (On most campuses, IR departments taught international law; to the extent war was studied, it was in the context of the League of Nations and the Kellogg-Briand Pact.) Bill fell into this heady climate and was soon recognized as a star student. His doctoral dissertation—on balance-of-power politics in nineteenth-century British foreign policy—won Yale's annual history prize, even though he wasn't in the history department.

In 1949, many on the institute's faculty were hired away by the RAND Corporation's new social science department; a few others, including Bill, fled to Princeton. There, he focused on a question that had first been raised by Brodie at Yale—how to deter the Soviet Union from aggression in an age when both sides had plenty of atom bombs?

In January 1954, John Foster Dulles, President Eisenhower's secretary of state, gave his "massive retaliation" speech, signaling that U.S. policy would put the entire weight of deterrence on its atomic arsenal: if the Soviets invaded any part of the free world, in Europe or Asia, we would destroy their country with A-bombs. Bill wasn't the only one who thought this policy was foolish, but he articulated the most elaborate critique. In a Princeton monograph called "The Requirements of Deterrence," published the following November, he made two basic points: first, the threat wouldn't be credible once the Soviets had enough nuclear weapons to fire back; second, the United States was in fact capable of mounting a non-nuclear defense, especially in the "grey areas" of the third world. Bill's essay had a galvanizing effect on the U.S. Army, whose chiefs were looking for a rationale to stay in business; officers passed it around avidly and rewrote their strategic doctrine to reflect its logic.

In 1956, increasingly unhappy with Princeton, Bill joined his former Yale colleagues at RAND, the Air Force-sponsored think tank in Santa Monica, California. There, he came across a coterie of engaged intellectuals who thought all day about nuclear war, something that Bill had previously assumed was not worth thinking about; nuclear bombs were so destructive they seemed to defy the very notion of strategic thought. The point of building up a conventional force defense-which he'd advocated in "The Requirements of Deterrence" and a later essay called "Limited War"-was to deter and, if necessary, confront Soviet aggression without triggering escalation to nuclear war. But as he became immersed in RAND, he thought there might be a way to apply this principle to the concept of limited nuclear war.

The standard thinking at the time was that, if the Soviets invaded Western Europe and if we lacked conventional forces to beat them back (as was indeed the case), a president would be left with only two choices-suicide (i.e., massive retaliation, which would trigger a Soviet massive retaliation) or surrender. Bill's idea constituted a third choice, a *possible* way out of this horrendous dilemma. His idea was to respond to a Soviet invasion by launching a small nuclear attack strictly against the Soviet Union's strategic forces (bombers, long-range missiles, and submarine pens), avoiding their cities and industries. The president would then tell the Soviet premier: Stop your aggression and retreat, or we will use our remaining weapons-based in underground missile silos or underwater submarines-to destroy your cities, one by one, until you surrender. There was the danger that the counterforce strike wouldn't destroy all the Soviet weapons and that they might retaliate with the ones that survived, killing a few million Americans or Western Europeans. But this was preferable to the tens or hundreds of millions that would be killed in a war of massive retaliation.

Unlike some later nuclear thinkers, Bill was never enthusiastic about this idea; he saw it as a strategy of desperation—an option that the president might exercise if all other moves were even worse.

In 1961, John Kennedy was elected president. He chose Robert McNamara as his defense secretary, and McNamara recruited many RAND analysts as his "whiz kids." They told him about the Kaufmann counterforce study. McNamara asked for a briefing, and, though he had reservations, he embraced its tenets. For McNamara had also been briefed by General Thomas Power, the head of Strategic Air Command, on the official U.S. war plan, called SIOP-62. Under that plan, if the Soviets invaded any part of the free world, even if they didn't fire a single nuke, SAC would launch its entire arsenal of nuclear weapons-3,423 bombs and warheads, totaling 7,847 megatons-killing 285 million Russians and Chinese and injuring 40 million more, along with uncalculated casualties caused by radioactive fallout all over the world.

McNamara was horrified, not just by the plan but by General Power's blithe presentation of it. A year earlier, Bill had briefed Power on the counterforce strategy, and the general interrupted him with a long, angry tirade. "Why do you want us to restrain ourselves?" Power bellowed. "Why are you so concerned with saving their lives? The whole idea is to *kill* the bastards!" After several minutes of this, Power finally said, "Look. At the end of the war, if there are two Americans and one Russian, we win!" Bill, his patience exhausted, snapped back, "Well, you'd better make sure they're a man and a woman." Power stalked out of the room.

McNamara accepted Bill's premise that the president had to have some "options," in case the worst happened-and the counterforce briefing provided the answer. He hired Bill as his special assistantmainly to work on the budget and to hire speeches-and he ordered a revision to the nuclear war plan in SIOP-63. Within a couple years, McNamara grew disillusioned with this idea, too; he concluded that there was no way to keep the war from escalating once "nuclear exchanges" began; and meanwhile, the Air Force was using the concept as the rationale for requesting thousands of new nuclear bombs and warheads. McNamara adopted a new policy-"assured destruction" (or, as some called it, "mutual assured destruction," to yield the acronym MAD)but in fact the real targeting policy, then and throughout the rest of the cold war, remained "counterforce."

Bill's interest in the nuclear game wavered over the subsequent years, peaking in the early 1970s, when his former RAND colleague James Schlesinger became defense secretary. But by the time he left officialdom in '81, he realized that McNamara was right to have rejected the whole concept. From his new outsider's perspective, he looked more closely at the practical considerations of "limited nuclear exchanges." As he recited them at the time, "How do you get your surveillance and post-attack reconnaissance? How do you know what's been hit and what's left? How do you end the war?" The ideas driving the strategy may have had validity, "but," he said, "they have no operational substance ... My guess is they're just not worth the trouble, even assuming they are feasible, which I question."

And yet he did not abandon the notion that a president should have options—or that rational analysis was central to solving problems.

Bill could be dour, even cynical, at times; but he also displayed a mordant wit, punctuated by a high-pitched nasal giggle. Another of Bill's students, David Schwartz, was once talking with Bill about getting a job, saying he looked forward to get out into the real world. Bill chomped down on his pipe and said, "You know, none of these worlds is quite real."

Perhaps the key to understanding Bill Kaufmann and untangling his contradictions is that he was, at bottom, a man not at home with the twentieth century. It showed in his dress-he always wore a suit to class-and, even more, in his handwriting: a lovely, graceful cursive that his secretaries at MIT refused to type. (Many of his students kept copies of his handwritten exams as mementoes.) Like the aristocratic leads in Jean Renoir's La Grande Illusion, he sought to impose rules and order, a modicum of civilization, on modern warfare. In his 1956 essay, "Limited War," he wrote, "We may not be able to create the refined distinctions that characterized the politics of the $17^{\rm th}$ and $18^{\rm th}$ centuries, when two powers could be friends on one side of a line while fighting bitterly on the other side, but we may at least be able to approach the relatively compartmentalized pattern of the 19th century, and that itself would be a significant gain." His frustration was-and our tragedy is-that the world may have spun beyond that possibility.

Bill died at Hearthstone at Choate, an Alzheimer's care center in Woburn, Massachusetts. He is survived by his wife, Julia.

Fred Kaplan

NOTE

Fred Kaplan is the national-security columnist for Slate and the author of The Wizards of Armageddon (1983), Daydream Believers: How a Few Grand Ideas Wrecked American Power (2008), and 1959: The Year Everything Changed (2009). He earned a Ph.D. in political science from MIT.

DUNCAN MACRAE, Jr.

Duncan MacRae, Jr., was appointed Kenan Professor of Political Science and Sociology at the University of North Carolina in 1972 and served in that capacity until his death as emeritus professor in July 2008.

Duncan was also a fellow of the American Academy of Arts and Sciences and a Fulbright Research Scholar, and he received the Woodrow Wilson Award of the American Political Science Association and the Donald T. Campbell and Harold D. Lasswell Awards of the Policy Studies Organization. Internationally recognized as one of the founders of public policy analysis, Duncan was among the earliest scholars to distinguish between the methods of social science research and those of public policy analysis. See, for example, *Policy* Analysis for Public Decisions (Duxbury Press, 1979, with James A. Wilde), Policy Indicators: Links Between Social Science and Public Debate (UNC Press, 1985), and Expert Advice for Policy Choice: Analysis and Discourse (Georgetown University Press, 1997, with Dale Whittington). Rather than specializing in a particular policy field, Duncan devoted his career to the methods of policy analysis and its application to a wide range of policy issues, including education policies for handicapped children, policies to contain the AIDS epidemic, and the provision of water supplies in developing countries.

A factual recitation of these and other distinguished achievements falls short of conveying the remarkable scope, texture, depth, and multi-facetted features of Duncan's career. The discretion commonly permitted in offering reflections on the lives of departed colleagues prompts the following statement presented at a September 2008 memorial service and formally titled: "Duncan MacRae, Jr., An Inspirational Odyssey."

I am privileged, honored, and humbled beyond words by the invitation from Amy MacRae to share reflections and recollections about the inspirational life, character, and scholarship of Duncan MacRae, whose Scots clan surname means "son of grace." Grace and gracefulness epitomized Duncan's personal demeanor and scholarly deftness. My reference to humbled beyond words will be evident momentarily when I rely on statements from others to provide scope and depth to my inadequate efforts in expressing what Duncan meant to me, to former students, to colleagues, to UNC, and to the wider university of the mind

In a book titled *How the Scots Invented the Modern World*, Arthur Herman poses a set of arresting questions: Who created the first literate society? Who first articulated free market capitalism? Who invented our modern ideas of democracy? To these and other wide-ranging queries Herman has a simple answer: the Scots! The mention of Scots and Scotland quickly conjures up images of bagpipes, kilts (even ties/tartans), whiskey, and of course, golf!

Besides being an esteemed colleague and an admired scholar, Duncan was a golfing friend and partner with several of us. The many rounds played at Finley Golf Course probably equaled or exceeded in