his graduate students, "you also have a responsibility to your profession, through publication." He practiced what he preached by publishing in major journals and with several scholarly presses throughout his career, and inspired his students to do likewise. It is an honor to pay tribute to such an outstanding scholar, mentor, and friend. Having, surprisingly, received a Guggenheim Fellowship before Arthur Robinson, it was my pleasure to recommend him for this distinction. This helped me repay the great debt I had incurred to one of the leading cartographers of the Twentieth Century.

Arthur H. Robinson: Reflections on the Personage

Ph.D. 1968, University of Wisconsin, Madison The Effects of Sampling and Interpolation in Isarithmic

Mapping

was privileged to be closely associated with Arthur H. Robinson, professionally, for slightly over twenty years (1962-1983). We shared faculty

teaching and research duties at the University of Wisconsin-Madison for fifteen of those years and I was a graduate student under his tutelage for almost six years. Prior, we both attained undergraduate degrees from Miami University in Oxford, OH, having both attended high schools in southwestern Ohio, and much later, we both served terms as President of the International Cartographic Association. Between my high school years and my term as ICA President, I got to know a great man who provided me with examples and assurances of many of the basic tenets that have guided my life, a fantastic "role model", and yes, a "father" figure. In this short essay, I hope to touch on some of those characteristics of Arthur H. Robinson, the man, not Arthur H. Robinson, the Dean of American Cartography.

Robbie was born in Montreal, but grew up in Oxford, Ohio. Oxford, the home of Miami (Ohio) University, is (was) a quiet small town in extreme southwestern Ohio, approximately 30 miles north of the Ohio River and a couple miles from the Indiana border. Oxford had about 1000-1500 inhabitants during Robbie's formative years. He was the son of a Professor of History, and experienced the advantages of educationally demanding parents. Spending one high school year in England and attending Tallawanda High School in Oxford along with the children of other Miami faculty, Robbie was fortunate to be introduced to the broadly liberal education that is still characteristic of growing up in cities like Madison, WI, Ann Arbor, MI, or Austin TX. Continuing his education at Miami University, well known for its quality Arts and Sciences undergraduate program, enhanced his education. To my knowledge he had one sibling, a sister who became a Professor of Art at the University of Hawaii.

What are the characteristics of this man that impressed me, or that were impressed upon me? There are five that portray the human side of Arthur Robinson: (1) an open-mindedness to change, (2) non-presumptiveness

Joel Morrison Professor Emeritus Department of Geography The Ohio State University about others and non pretentiousness, (3) ability to take the long term view and plan accordingly, (4) the importance of making major decisions in a calm and rational manner, and (5) self discipline. These character traits are not independent, as the anecdotes mentioned below will indicate.

Robbie's classical liberal education in high school and at Miami, followed by his master's at Wisconsin and final graduate study at The Ohio State University coupled with the frequent intellectual discussions around the family table, prepared him well for a lifetime of willingness to listen to the opinions of others. He could borrow and craft from these opinions and in combination with his own logic and feelings, create personal and academic plans of note. These skills allowed him to make decisions that could stand the tests of argument yet could be revised to fit the time and place of the current circumstances. In short he was a comprehensive thinker and a master politician.

I begin my anecdotes with the question: What do we call this giant of cartography? In this essay I will use the name Robbie, which he accepted as standard use by *anyone who was comfortable* calling him that. Many students worried about whether he should be Dr. Robinson or Professor Robinson, or in Wisconsin's own reverse psychology, Mr. Robinson. (Andrew Clark always maintained that anyone who was hired to teach at the University of Wisconsin-Madison would have a Ph.D. and therefore Dr could be assumed and equality demanded the use of the term Mr.). Following this psychology, the geography department's stated "preferred" title for students to use in the 1960-1980 period was "Mr". Robinson. However Robbie made it clear that students, and particularly graduate students, should use whatever name they were comfortable using, not some moniker that he, or the department, dictated. Most students, myself included, struggled for several years before "Robbie" came easily. I suspect he secretly enjoyed watching us struggle and took our eventual use of Robbie as a sign of professional growth. I do remember that Mary Lib (his first wife, Mary Elizabeth Coffin, who preceded him in death) called him "Arthur", and that Martha (his second wife and high-school sweetheart) has said that in high school in Oxford he was known as "Long".

This lack of pretentiousness, in contrast to some Wisconsin geography faculty members of the same time period, carried throughout his professional and personal life. It was extremely evident during his four years as President of the International Cartographic Association. He was himself, the same person, at least outwardly, whether he was talking to the King of Spain in Madrid, arguing with a communist government immigration official in Moscow, conducting an ICA executive committee meeting, or meeting with a graduate student.

This non-pretentiousness was also evident in his lecture style, though it had some unfortunate consequences. At Wisconsin some students, particularly undergraduate students taking his course to fulfill a graduation requirement, were heard to declare that Mr. Robinson "died" at the lectern. He was "slow talking", "monotone", and "boring", "putting everyone to sleep". An alternative description came from graduate students, who quickly learned that each word had been carefully considered and was meaningful. It was only through careful attention to his "dry" lectures that you could detect, and enjoy, the "dry" humor, and carefully crafted metaphors and explanations that he used in his lectures.

Away from the university, he enjoyed immensely the interludes with immediate family and well-known friends. His ties to Randy Sale played heavily in his relaxation. Randy and Robbie enjoyed working outside and around their respective homes in Mt. Horeb, Wisconsin, and helping one another in those pursuits. It was a friendship that provided a necessary respite for Robbie and which carried over into their collegial relationship in the academic world. However, there never was equality in the academic environment. Robbie was the professor and Randy followed. Both men accepted completely this situation.

Even in relaxation, Robbie exhibited an incredible amount of self-discipline. He loved the solitude of thinking time. He preferred to drive long distances and to use that time to enable him to think through some of his professional questions. He told me once of driving to Columbus from Madison and of finally reaching the "correct answer" or "course of action" to his current academic question while driving on a stretch of U.S. Highway 30 that we both knew well in Van Wert County, Ohio. As any of you who have traveled this route know, it is a flat, straight, dual-lane divided highway with little or no traffic. It is a perfect place in "today's America" to get away from it all, and to do some serious thinking. He also effectively used his driving time to their summer home in Vilas County, Wisconsin, for thinking and planning. Even though these Northern Wisconsin treks were restful (vacation) periods, he took academic work with him and devoted a specific amount of time each day to academic pursuits. The time allocated was directly related to the task, and prior to leaving Madison, he could relay a date in the future when one could expect a chapter revision of "Elements of Cartography", or illustrations for an article to be sent from Northern Wisconsin. This takes an organized, planned, extremely disciplined mind, especially when there are 1001 things that a second home requires for maintenance and preservation through the harsh Wisconsin winters.

In today's parlance, Robbie had mastered the ability "to go with the flow" but he added the ability to subtly *direct* "the flow" by maneuvering events to his advantage. He could do this by having thoroughly thought the consequences of various options. In most of the world today, and particularly here in the United States, confrontation is accepted and most people do not understand the finesses and subtleties of bringing well thought long range plans to fruition. And if they did understand, many would rebel at the time it takes to implement such a plan. This is why the citizenry of the United States is currently so easily being misled as a nation. Robbie did understand and had the self-discipline and patience to implement. He excelled at it.

It should not be surprising then to learn that Robbie had a master plan for building cartography and a cartographic curriculum at UW that spanned decades. From his OSS war experience, his return to academia, and his promotion of well-designed maps, he realized early in his career the need for a cartographic discipline. That he was successful in creating it can be credited to the occurrence of a few fortunate events during the 20th century. But one needs to dig deeper to find the logical arguments and the careful attention to details that enabled him to bring about its realization.

In the 1950's the phenomenal post war growth and an aggressive University of Wisconsin Press meant a need on the Madison campus for "good" maps. State government also needed maps, and these forces led to the establishment of the UW Cartographic Laboratory. Randy Sale was hired in the Department of Geography to run the lab and to later teach the introductory course. It also made UW-Madison a prime site for the administering of National Defense Education Act Title IV graduate assistantships in Cartography beginning in 1961. This "outside" national stimulus combined with the on-going state support to further stimulate the growth of cartography at Wisconsin. Together they put UW-Madison cartographically on-the-map "so to speak" (a favorite Robbie expression). Robbie's continually revised master plan for cartography did fall short in its numerous attempts in conjunction with George Jenks and John Sherman to establish a National Institute of Cartography. But at Wisconsin, his continuing but subtle support for cartography and his abilities to shift the supporting arguments to reflect the changing times finally led to the UW administration's agreement to hire an additional professor in cartography in 1967. Robbie also engaged in joint discussions with the surveying professors in Civil Engineering at UW-Madison, which allowed him to realize, after a long and painful process, the establishment of a degree program in cartography and the hiring of yet another cartographer in geography. This persistence, this long-range planning, this careful attention to detail and timing, and his open-mindedness resulting from his liberal education paid off by allowing him many alternative paths and positions to attain the realization of his goal.

Robbie was unflappable in his ability to wait until tomorrow, or until the time was "right" and the "heat", that is, the emotion, of the subject had waned, to push forward his ideas. The same events that may appear to be a setback often look differently with the perspective of passing time. The idea is that he understood that any major decision has a "time" when it is "right." Making it prematurely often results in creating more problems than the decision will solve. Similarly waiting too long can result in a missed opportunity for the "good" feeling that would accompany good timing. (I have seen the results of hasty decision making over and over again in Washington.)

Thorough, well-organized, and long-range thinking and planning can have its pitfalls for others though. I remember one incident that happened to me as a graduate student. Robbie was to be away from Madison for some convention or meeting. He asked me to present the lecture to his course in Advanced Cartography during his absence. He made his case that it would be "educational" and good experience for me and "sweetened" the task by offering to give me his lecture notes for that lecture. As I have stated, Robbie was very well organized and had his lectures down to the minute for his repeat courses. I agreed to deliver the lecture and the day he left, the day before the class, I went to his office for the lecture notes. My expectations were dashed completely when he handed me two small sheets of white paper with a total of about 8 words on them. They were in outline form, but hardly with enough detail to enable me to speak for 50 minutes. This illustration simply epitomizes Robbie's mental selfdiscipline and his organizational detail and long range planning capabilities. Within the course, he had his goals and he knew what ideas needed to be presented at this time of the course. Key words were all that were necessary.

Robbie also demonstrated how one should regard, or maybe it should be pre-view, major emotional events of life at a time when the emotional aspects of the events were not foremost, and prior to their happening, if possible. I saw him plan his funeral arrangements in the 1970's and to unemotionally inform Pat and Steve, his two children, of what they were to be. His careful attention to detail in his academic life carried over into his private life. I remember our personal discussions about religion, and especially about organized religion. His views have had a major effect on my life. Throughout all of the years of our association at UW-Madison, perhaps his most constant and meaningful role was to demonstrate an ability to set a pace and stay with it regardless of setbacks along the road to achieving a goal. Persistence works.

Arthur H. Robinson created a cartographic discipline in the colleges

and universities of North America. His professional writings will continue to be read. The world will be better as a result. Arthur H. Robinson, Robbie, also exhibited characteristics that many of the citizens of the world would do well to emulate: open mindedness, self discipline, setting long term goals and plans, operating and responding non-presumptively, non-emotionally, unpretentiously. Too few of us had the opportunity to observe and learn from Robbie. Those that have are better world citizens for the experience.

Contemplating the Challenges . . . and Some Recollections

Ph.D. 1969, University of Wisconsin, Madison

The Dasymetric Method in Thematic Cartography

QUESTION [R. Klove]: ... the purpose of a statistical map is to give a relatively true impression and not an absolutely correct one, and whether New York is 150 times the smallest or 250 times doesn't matter, does it?

RESPONSE [AHR]: To give a relatively true impression it *does* matter "whether New York is – appears – 150 times the smallest or 250 times." This is basic; without it we have no standards at all with which to judge the quality of this kind of thematic map. … The only way to test the quality of such maps is to have the map reader match up the graphic presentation with what is to be communicated.

"...true and absolute values" ... are true and absolute to a planimeter, but we don't make maps to be "seen" by planimeters; we make them for people. ... If one accepts the philosophy that maps are made for people to look at, and if one accepts that to see normally is not necessarily to see the way mechanical devices or our non-relative system of arithmetic "see" ... then it seems to me one is bound to proceed according to the results of proper research. If we ignore its results then we are saying either a) "it is not correct," or b) "it may be so, but I just don't like it that way." Both are indefensible when we are making maps for others to look at.

[From an exchange of letters between Arthur Robinson and the Bureau of the Census, 1964]

PRACTICAL MATTERS 1 [AHR]: We buy meat at Krogers, produce at Safeway ... and everything else at Piggly Wiggly.

CHALLENGE [AHR]: "I shall be out of town next week ... would you cover the introductory cartography class for me?" [GMc]: "Sure ... what's involved?" [AHR]: "It's map projections and the indicatrix ... here are my notes [nine lines]."

Eleven completely filled five-by-eight note cards later, I had taught my first class. (Now I'm into dimples on golf balls.)

CHALLENGE: It is undoubtedly all too apparent ... that structural elements in the cartographic technique are not only extremely complex, but

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