So what? A brief history of Robert N. Ginsburg 1925-2017

Few individuals have influenced the course of carbonate geology more over the past 60+ years than Robert Nathan Ginsburg. Had he not set the course, comparative sedimentology as we now know it might never have flourished (Figure 1). Equally important was Bob’s rare ability to influence those around him to think, to ask the ‘So what?’ or ‘What does it mean?’ questions that we so often forget to ask. Bob could be likened to a Renaissance man, a visiting scholar from past centuries. His approach to science was both philosophical and pragmatic, a natural historian’s attitude that at first seemed out of step with today’s high-tech black-box science.

Born 26 April 1925, in Wichita Falls, Texas, the son of Joseph W. Ginsburg, an independent oilman, Bob grew up in both the East Texas and Illinois Basin oil booms. Schooling began in Dallas followed by Junior High at Tyler, Texas, where he played football until he was injured competing with the school’s archrivals from Kilgore. When the family followed the oil boom to Mt. Vernon, Illinois, Bob attended high school there and spent his spare time playing billiards, developing, as he once said, ‘my powers of concentration’.

In 1941, Bob moved back to Texas, this time to become a Texas Aggie, but the military decided his eyesight was too poor for service, so it was back to Mt. Vernon to attend the University of Illinois. Working part-time in a boiler factory, Bob was a card-carrying member of the International Brotherhood of Boilermakers; thus, when the army decided his eyesight was not so bad after all, he was accepted and given the title ‘Welder’s Helper’. Bob made the rank of Corporal at Ft. Leonard Wood, training farmers to march, and soon found himself on a troop ship bound for Leyte in the Philippines. There his boilermaker skills were put to good use assembling landing craft. With the war’s end and a case of hookworm contracted in Manila, Bob spent 25 days of continuous seasickness crossing the stormy Pacific Ocean to San Francisco.

Home again, he spent the summer picking peaches. After meeting a French girl, Bob fell in love with all things French. So, with his G.I. Bill, Bob moved to Paris where he lived in Bohemian style in a Left Bank apartment enjoying the opera every night followed by champagne and roast goose at midnight. By day, he was a serious student of the French language at the Sorbonne.

All good things must come to an end, and Bob returned to the University of Illinois to continue French language studies. The school had no French programme but did have a smorgasbord of courses designed especially for GIs who did not know what to do with themselves. One of these courses was geology. Bob made another big move at the same time—he went from boilermaker to waiter in the Faculty Club.

One day, an influential professor at the University of Illinois encouraged Bob to check out the University of Chicago the next time he visited his sister in the Windy City. He did, and before he could escape, a counsellor had signed him up for Chicago’s famous field camp at Baraboo. It was, in Bob’s words, a ‘sort of do-it-yourself affair where you map, describe, and try to figure out how potholes formed… Mostly unguided’. Everyone has a turning point, and this was Bob’s, fortunately for all of us. The professor who encouraged that trip to Chicago was Jack Hough, who as many may know, became editor of the Journal of Sedimentary Petrology. Bob earned his Master’s Degree at Chicago specifically so he could join an oil company and go overseas. Unfortunately, timing was bad since the companies were not hiring, so he decided to go on for his Ph.D. (sound familiar?). But, what would be his dissertation subject? Someone came up with a catalogue advertising Fellowships at the University of Miami.
in Florida. When he asked Jack Hough about Miami, Jack admitted he had never heard of the place. In fact, no one that far north had heard of the University of Miami. Bob drove south for the interview anyway. He was on a mission, an idea he wanted to test. He wanted to determine the process by which sediment became rock. It seemed straightforward enough. All you had to do was dig a hole or push a core tube a few feet into the sediment until it stopped. That would be the zone of transition from sediment to rock. He got the Fellowship (about $3,000) and began his research. Of course, the problem turned out to be more difficult than expected, so difficult in fact that many scientists are still working on it today. He did find some beachrock at Dry Tortugas and some laminated soilstone crusts, which he mistakenly thought were lithified algal mats. His research led to a National Science Foundation grant to study algal mats, and his professor, Francis Pettijohn, obtained for him some funds from the American Petroleum Institute’s Project 51. It was also about this time that Jack Hough, who by then knew there really was a University of Miami, encouraged another student to move south; thus began Bob’s long affiliation with Mike Lloyd (Figure 2). Together they had many experiences, including a Navy project during which they dropped mines around the Key West Naval Base to see whether they would sink into the lime-mud bottom. Bob completed his Ph.D. dissertation and obtained his degree from the University of Chicago under a truly impressive cadre of professors: Francis Pettijohn, Heinz Lowenstam, Julian Goldsmith, Robert Balk, J Harlan Bretz and Marvin Weller. The University was at that time a place where you could go to the cafeteria and rub elbows with Enrico Fermi, Harold Urey or Bill Libby. It was the time and place where Lowenstam and Urey were pioneering the use of isotopic analysis for measuring palaeotemperatures from marine shells. It was a golden era at the University of Chicago, and the geology students were equally golden. These students became what many geologists began calling the ‘Chicago Mafia’. They included Cesare Emiliani, Keith Chave, Paul Potter, Ray Siever, Gerald Wasserburg, Saul Silverman, Meyer Rubin, George Edwards, Irv Friedman, Oiva Joensuu, Harmon Craig and Bob Nanz, to name a few.

One day, between slogging through the muds of Florida Bay and finishing his dissertation, some oil guys visited Bob. Back in Houston, Shell Development Company was putting together a research team. Sam Gershinowitz had the audacious uniformitarian idea that study of modern sediments might somehow help find oil. Former Chicagoan Bob Nanz was studying sand-grain orientation on beaches when Gershinowitz suggested that maybe they should also do something with carbonates. A decision was reached to visit Miami and see what those kids had to offer. One of the oil guys who visited was Rufus LeBlanc. He hired Bob and Mike on the spot. It was 1954, and together Bob and Mike found an old apartment house in Coral Gables, Florida, put out a single, and began what became famous in the carbonate world as the ‘Coral Gables Office’ of Shell Development (Figure 3). That office soon was visited regularly by a worldwide elite of carbonate researchers, not to mention several hundred exploration geologists, who participated in the dozens of modern carbonate field trips Bob and Mike conducted. It was the beginning of the golden years of research at Shell and also the start of yet another geological Mafia. It was truly a golden period for Bob, for he met and married Helen Sloan. Helen was a playwright in residence, a teacher of creative writing at the University of Miami, an artist and truly an inspiration to Bob until her passing in the 1970s. Helen was well known within the creative artists’ community in Coconut Grove where she commissioned a local artist to design a sign for the front door of Shell’s Coral Gables office. However, its unique design consisting of fired pottery clay was not appreciated by managers at Shell headquarters but was treasured by Bob’s Coral Gables office staff (Figure 3).

In 1958, I became a junior member of the Shell Mafia, a starving, semi-barefoot young father with a near useless BS degree in biology. It was here that I witnessed and experienced the magnetic influence Bob had with people, an influence that reached all the way back to the larger Mafia at Shell headquarters in Houston. It was openly acknowledged that Bob and the work he and his associates conducted at Coral Gables provided stimulation and new ideas for testing by those working both in the Houston laboratory as well as the oil patch. This new Mafia included Ken Hsu, James Lee Wilson, Gordon Rittenhouse, Bob Nanz, Rufus LeBlanc, Dick Rezak, Frank Lozo, Perry Roehl, Bob Perkins, Ron Perkins, Clyde Moore, Raymond Murray, Peter Weyl, Kenneth Deffeyes, Bob Dunham, Doris Curtis, Ike Smith, Paul Enos, Barney Wilson, Barney Bernard, Bob Schneider, John Macallum, Mike Lloyd, Pete Rose and George Herman.

**FIGURE 2** Bob Ginsburg and Michael Lloyd both in their early 30s examining sediment cores of a Florida Bay lime-mud bank
The list of famous geologists Bob inspired could go on and on. With colleagues such as those, how could it have not been the golden age of research at Shell? In fact, many of us believe the golden age of science in general was between 1955 and 1973. Researchers were relatively unfettered by rules, regulations, research permits and bureaucracy in general. New ideas were king and ruled the day.

As soon as I joined Bob’s team, I was introduced to the sticky and smelly lime mud of Florida Bay. Bob had begun his career studying the origin of lime mud and the lime mudstone that comprises so much of the geologic record. Bob thrived on gooey lime mud and loved to teach in the field (Figure 1). So with shovel and core tubes in hand, I quickly found myself shovelling the limy goo and loved it (Figure 4A, B). Bob’s work and influence on geology and geologists did not end there. In 1965, Bob gave up industrial research to be a professor of geology and oceanography at Johns Hopkins University, where he was reunited with Francis Pettijohn. He applied his magical influence there as well, first on Owen Bricker, with whom he taught summer courses at the Bermuda Biological Station, and then on Lawrence Hardie. With Bricker he studied cements, especially submarine cements, a new hot topic at the time, and soon after, Bricker published his book on cements. Bob next stimulated Hardie to pursue studies on the Andros Island tidal flats in the Bahamas. Hardie too published a book on the subject. Academic life, faculty meetings and especially the climate in Baltimore eventually wore thin. Bob and Helen moved back to Miami in 1970 to establish the University of Miami’s Comparative Sedimentology Laboratory. Cesare Emiliani convinced Bob to set up his academic headquarters on Fisher Island just south of Miami Beach. Soon after his arrival, Bob set up an Industrial Associates Program (before Industrial Associates Programs were in vogue) and was joined by Noel James. Bob jokingly called it his ‘one elephant circus’. The rest is history. In 1974, Wolfgang Schlager joined Bob at about the same time I was setting up a USGS office in an empty Fisher Island building next door. Former Shell oil geologist Pete Rose had become Chief of the USGS Oil and Gas Branch. He hired Robert Halley, Harold Hudson, Barbara Lidz and me to start a USGS field station for the study of modern carbonate sediments. Becoming neighbours on Fisher Island, I had numerous opportunities to observe the Ginsburg magic at work. His students had the privilege of doing dissertations in frontier areas of science—from the deep oceans to the shallows, from the surface to the subsurface. Not only did he and his students do pioneering research, his students were also frequently tested by interaction with their industry sponsors’ representatives. At one time, there were a dozen companies sponsoring their work. The Fisher Island Mafia was flourishing.

Bob’s accomplishments were outstanding. I often said he could talk anyone into doing anything. Thus, with industry
sponsors and a jack-up drill rig with crew, he drilled a transect of deep core holes on the western edge of the Great Bahama Bank. With the aid of Peter Swart who joined the University of Miami from England in 1983, those cores demonstrated how and when the bank had accreted into the Straits of Florida. Many student papers and dissertations resulted, and micropalaeontological age dating by my close colleague Barbara Lidz played a vital role in core and bank development interpretations. I never saw any sign of letup. Bob remained active and served on numerous committees while also a Fellow of the GSA and President of the SEPM. Under Bob’s influence, the first SEPM poster session was undertaken at the 1970 convention in Houston. Today, we cannot imagine a convention without poster sessions. He also instigated SEPM’s Research Group meetings, where specialists met informally each year. Some meetings became somewhat rancorous when fuelled by adult beverages. As a one-man organizer, especially of meetings, Bob had no match. His meetings and symposia included a weeklong conference on tidal deposits and a proceedings volume he personally edited, a conference on comparative sedimentology that produced five published papers and two reef symposia including the prestigious Third International Coral Reef Symposium held in Miami in 1977. I had the privilege of conducting two field trips, and colleague Barbara Lidz edited the two thick proceedings volumes. Between other duties, Bob found time each year to conduct four to six modern carbonate field courses, each one a week long, and of course, he was a much sought out lecturer. One could fill a book with places where he lectured, including a 15-university sweep as an AAPG Distinguished Lecturer.

Bob won many honours, ranging from a Gold Medal from the Florida Academy of Sciences, the Senior Queens Fellowship in Australia and the Cloos Scholar (Lectureship) at Johns Hopkins. He was on the Advisory Committee for the Department of Geology at Tulane University and was a SEPM Twenhofel Medalist. Bob’s list of publications is too long to note here but also to his credit was the authorship and co-authorship of three books. He had edited and published 10 separate guidebooks to various areas of geological interest in the Caribbean. The guidebooks are part of the Sedimenta Series, which he originated while managing the Comparative Sedimentology Laboratory. The series includes three Milestone in Geology volumes that he edited: Sorby on Sedimentology, Sorby on Geology and Johannes Walther on Reefs. How did he do it? I often said, ‘had Bob decided to be a juggler, he would have made the Guinness Book of Records for keeping the most balls in the air’. That was an idea expressed on Fisher Island in a photograph (Figure 5) taken on his 50th birthday.

Bob often seemed to thrive on adversity. Given a choice between a simple way to accomplish something and a difficult way, he would predictably choose the latter. Any alternative would simply be what he called ‘expediency’, something he always avoided; ‘there’s no stimulation in expediency’.

**FIGURE 5** Presentation of a cartoon poster prepared by J. Harold Hudson at an outdoor party on Fisher Island celebrating Bob’s 50th birthday. Creative poster playfully depicts Bob’s ability to juggle and manage dozens of ideas and projects while balancing the two-person research submarine *Nekton* on his nose.

**FIGURE 6** Robert Ginsburg and the author surrounded by past students from the University of Miami. Back Row: Gregor Eberli, Robert Ginsburg, Gene Shinn and Mitch Harris. Front Row: Noelle Van Ee, Sam Reid, Michael Zeller, Kelly Jackson, Amanda Oehlert, and Quinn Devlin.
One of Bob’s most impressive contributions to geology was his ability to ferret out the meaningful, to ask the ‘So what?’ question. Even more, he had the intangible ability to stimulate those around him to ask the right questions and thereby solve their own problems. A field trip with Bob was not one of those, ‘this is such and such, and that is so and so’, but rather, ‘What do you suppose this is?’ ‘Umm…’ ‘Do you suppose that…?’ ‘What does this tell us?’ Before long, you would find yourself caught up in a mind game in which you answer any and all questions you might have had.

Bob admired Gordon Rittenhouse immensely and espoused the Rittenhouse dictum ‘There is a reason’ approach to research. One tests hypotheses rather than laying out elaborate grids or shotgun sampling programmes. Black boxes, and computers, are useful, but to Bob, the significant problems were usually solved without them. Bob was truly a scholar from the Age of Reason. Sometimes, it seemed he had just stepped from a time capsule planted during the Renaissance and sent to the present to influence and provide inspiration.

My long and close relationship with Bob diminished slightly in 1989 when our small USGS enclave was transferred across the state to St. Petersburg. Bob would say all good things eventually end. Shortly after we left for the west coast of Florida, the Fisher Island property and Bob’s office buildings were sold, and he was forced to move to the University of Miami Rosenstiel School of Marine and Atmospheric Science (RSMAS) on Virginia Key. That move only stimulated him anew. Working with Peter Swart, Gregor Eberli, Donald McNeill, Pamela Reid and dozens of graduate students and post-docs that included carbonate experts Kevin Cunningham, Eberhard Gischler and scores of others, he soon shifted to environmental problems and coral reefs (Figure 6). He recruited Judy Lang, Philip Kramer and Ken Marks along with others to create Atlantic and Gulf Rapid Reef Assessment (AGRRA), a straightforward method for characterizing the condition of Atlantic coral reefs. The AGRRA method could be taught to relative neophytes and was soon employed throughout the Caribbean. When ‘resting’ as Bob would often say, he organized evening lectures by notable scientists to present talks geared for the public. Everything Bob accomplished enriched our minds. Bob celebrated more pivotal birthdays at RSMAS. At each one, we kept exchanging that old Shell Development sign highlighted in Figure 3.

As said earlier, all good things come to an end. Thanks to Philip Kramer and his wife Patricia, Bob’s ashes are now part of a Florida Bay mud bank. Bob was returned to where he began his professional career—in the sediment, he loved and made famous.

We and our profession will miss him dearly—and we celebrate his creativity, contributions and mentorship, while he was with us.

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