THE WRITING LIFE

STRUCTURE

Beyond the picnic-table crisis.

BY JOHN McPHEE

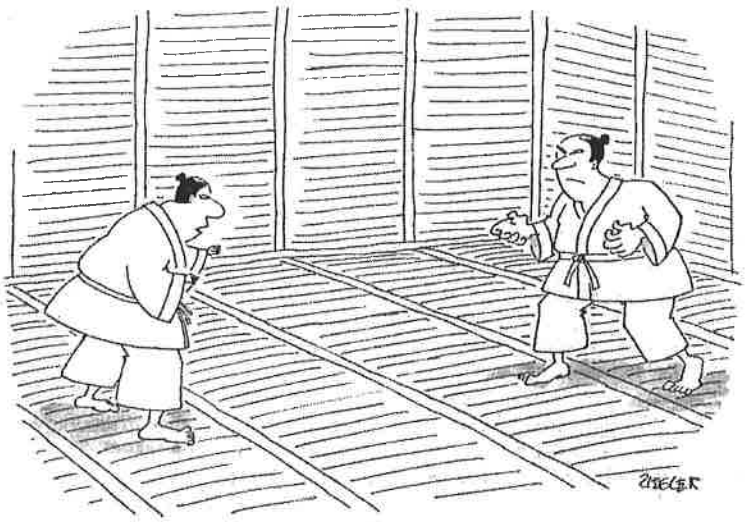
Out the back door and under the big ash was a picnic table. At the end of summer, 1966, I lay down on it for nearly two weeks, staring up into branches and leaves, fighting fear and panic, because I had no idea where or how to begin a piece of writing for *The New Yorker*. I went inside for lunch, surely, and at night, of course, but otherwise remained flat on my back on the table. The subject was the Pine Barrens of southern New Jersey. I had spent about eight months driving down from Princeton day after day, or taking a sleeping bag and a small tent. I had done all the research I was going to do—had interviewed woodlanders, fire watchers, forest rangers, botanists, cranberry growers, blueberry pickers, keepers of a general store. I had read all the books I was going to read, and scientific papers, and a doctoral dissertation. I had assembled enough material to fill a silo, and now I had no idea what to do with it. The piece would ultimately consist of some five thousand sentences, but for those two weeks I couldn't write even one. If I was blocked by fear, I was also stymied by inexperience. I had never tried to put so many different components—characters, description, dialogue, narrative, set pieces, humor, history, science, and so forth—into a single package.

It reminded me of Mort Sahl, the political comedian, about whom, six years earlier, I had written my first cover story at *Time*. The scale was different. It was meant to be only five thousand words and a straightforward biographical sketch, appearing during the Kennedy-Nixon Presidential campaigns, but the five thousand words seemed formidable to me then. With only a few days to listen to recordings, make notes, digest files from *Time* correspondents, read morgue clippings, and skim through several books, I was soon sprawled on the floor at home, surrounded by drifts of undifferentiated paper, and near tears in a catatonic swivet. As hour followed hour toward an absolute writing deadline (a condition I've never had to deal with in fifty years at *The New Yorker*), I was able to produce only one sentence: "The citizen has certain misgivings." So did this citizen, and from all the material piled around me I could not imagine what scribbled note to take up next or—if I figured that out—where in the mess the note might be.

In my first three years at Princeton High School, in the late nineteen-forties, my English teacher was Olive McKee, whose self-chosen ratio of writing assignments to reading assignments seems extraordinary in retrospect and certainly differed from the syllabus of the guy who taught us in senior year. Mrs. McKee made us do three pieces of writing a week. Not every single week. Some weeks had Thanksgiving in them. But we wrote three pieces a week most weeks for three years. We could write anything we wanted to, but each composition had to be accompanied by a structural outline, which she told us to do first. It could be anything from Roman numerals I, II, III to a looping doodle with guiding arrows and stick figures. The idea was to build some form of blueprint before working it out in sentences and paragraphs. Mrs. McKee liked theatrics (she was also the school's drama coach), and she had us read our pieces in class to the other kids. She made no attempt to stop anybody from booing, hissing, or wadding paper and throwing it at the reader, all of which the kids did. In this crucible, I learned to duck while reading. I loved Mrs. McKee, and I loved that class. So—a dozen years later, when Mort Sahl was overwhelming me, and I was wallowing in all those notes and files—I thought of her and the structure sheets, and despite the approaching deadline I spent half the night slowly sorting, making little stacks of thematically or chronologically associated notes, and arranging them in an order that seemed to hang well from that lead sentence: "The citizen has certain misgivings." Then, as I do now, I settled on an ending before going back to the beginning. In this instance, I let the comedian himself have the last word: "'My considered opinion of Nixon versus Kennedy is that neither can win.'"

The picnic-table crisis came along toward the end of my second year as a *New Yorker* staff writer (a euphemistic term that means unsalaried freelance close to the magazine). In some twenty months, I had submitted half a dozen pieces, short and long, and the editor, William Shawn, had bought them all. You would think that by then I would have developed some confidence in writing a new story, but I hadn't, and never would. To lack confidence at the outset seems rational to me. It doesn't matter that something you've done before worked out well. Your last piece is never going to write your next one for you. Square 1 does not become Square 2, just Square 1 squared and cubed. At last it occurred to me that Fred Brown, a seventy-nine-year-old Pine Barrens native, who lived in a shanty in the heart of the forest, had had some connection or other to at least three-quarters of those Pine Barrens topics whose miscellaneity was giving me writer's block. I could introduce him as I first encountered him when I crossed his floorless vestibule—"Come in. Come in. Come on the hell in"—and then describe our many wanderings around the woods together, each theme coming up as something touched upon it. After what turned out to be about thirty thousand words, the rest could take care of itself. Obvious as it had not seemed, this organizing principle gave me a sense of a nearly complete structure, and I got off the table.

Structure has preoccupied me in every project I have undertaken since,



"My hands—as you can see—are tiny and made of porcelain, so let's be careful."

• •

and, like Mrs. McKee, I have hammered it at Princeton writing students across four decades of teaching: "You can build a strong, sound, and artful structure. You can build a structure in such a way that it causes people to want to keep turning pages. A compelling structure in nonfiction can have an attracting effect analogous to a story line in fiction." Et cetera. Et cetera. And so forth, and so on.

The approach to structure in factual writing is like returning from a grocery store with materials you intend to cook for dinner. You set them out on the kitchen counter, and what's there is what you deal with, and all you deal with. If something is red and globular, you don't call it a tomato if it's a bell pepper. To some extent, the structure of a composition dictates itself, and to some extent it does not. Where you have a free hand, you can make interesting choices. Three years after "The Pine Barrens," for example, I was confronted with an even more complicated set of notes resulting from twelve months of varied travels with the four principal participants in "Encounters with the Archdruid." The simplified, conceptual structure ABC/D, which I described in these pages in November, 2011, now needed filling in. There would be three sections narrating three journeys: A, in the North Cascades with a mining geologist; B, on a Georgia island with a resort developer; C, on the Colorado River in the Grand Canyon with a builder of huge dams. D—David Brower, the high priest of the Sierra Club—would be in all three parts. Biographical descriptions of the others would, of course, belong in the relevant sections, but in the stories of the three journeys the details of Brower's life could go anywhere. When I was through studying, separating, defining, and coding the whole body of notes, I had thirty-six three-by-five cards, each with two or three code words representing a component of the story. All I had to do was put them in order. What order? An essential part of my office furniture in those years was a standard sheet of plywood—thirty-two square feet—on two sawhorses. I strewed the cards face up on the plywood. The anchored segments would be easy to arrange, but the free-floating ones would make the piece. I didn't stare at those cards for two weeks, but I kept an eye on them all afternoon. Finally, I found myself looking back and forth between two cards. One said "Alpinist." The other said "Upset Rapid." "Alpinist" could go anywhere. "Upset Rapid" had to be where it belonged in the journey on the river. I put the two cards side by side, "Upset Rapid" to the left. Gradually, the thirty-four other cards assembled around them until what had been strewn all over the plywood was now in neat rows. Nothing in that arrangement changed across the many months of writing.

The Colorado River in the Grand Canyon had several rapids defined on our river maps as "cannot be run without risk of life," Upset Rapid among them. We were in a neoprene raft with a guide named Jerry Sanderson, and by rule he had to stop and study the heavier rapids before proceeding down them. For several days, Brower and the dam builder—Floyd Dominy, federal Commissioner of Reclamation—had been engaged in verbal artillery over Dominy's wish to build high dams in the Grand Canyon. They fought all day and half the night, while I scribbled notes. Now,

> We all got off the raft and walked to the edge of the rapid with Sanderson. . . . The problem was elemental. On the near right was an enormous hole, fifteen feet deep and many yards wide, into which poured a scaled-down Canadian Niagara—tons upon tons of water per second. On the far left, just beyond the hole, a very large boulder was fixed in the white torrent. . . .
>
> "What are you going to do about this one, Jerry?"
>
> Sanderson spoke slowly and in a voice louder than usual, trying to pitch his words above the roar of the water. "You have to try to take ten per cent of the hole. If you take any more of the hole, you go in it, and if you take any less you hit the rock."
>
> "What's at the bottom of the hole, Jerry?"
>
> "A rubber raft," someone said.
>
> Sanderson smiled.
>
> "What happened two years ago, Jerry?"
>
> "Well, the man went through in a neoprene pontoon boat, and it was cut in half by the rock. His life jacket got tangled in a boat line and he drowned. . . ."
>
> We got back on the raft and moved out into the river. The raft turned slightly and began to move toward the rapid. "Hey," Dominy said. "Where's Dave? Hey! We left behind one of our party. We're separated now. Isn't he going to ride?" Brower had stayed on shore. We were now forty feet out. "Well, I swear, I swear, I swear," Dominy continued, slowly. "He isn't coming with us." The Upset Rapid drew us in.
>
> With a deep shudder, we dropped into a percentage of the hole—God only knows if it was ten—and the raft folded almost in two.

As we emerged on the far side, Dominy was still talking about "the great outdoorsman" who was "standing safely on dry land wearing a God-

damned life jacket!" Abandoning my supposedly detached role in all this, I urged Dominy not to say anything when Dave, having walked around the rapid, rejoined us. Dominy said, "Christ, I wouldn't think of it. I wouldn't dream of it. What did he do during the war?" Brower was waiting for us when we touched the riverbank in quiet water.

Dominy said, "Dave, why didn't you ride through the rapid?"
Brower said, "Because I'm chicken."

That was the end of "Upset Rapid," and it was followed in the printed story by a half inch or so of white space. After the white space, this:

"A Climber's Guide to the High Sierra" (Sierra Club, 1954) lists thirty-three peaks in the Sierra Nevada that were first ascended by David Brower. "*Arrowhead.* First ascent September 5, 1937, by David R. Brower and Richard M. Leonard. . . . *Glacier Point.* First ascent May 28, 1939, by Raffi Bedayan, David R. Brower, and Richard M. Leonard. . . ."

The new section went on to describe Brower as a rope-and-piton climber of the first order, who had clung by his fingernails to dizzying rock faces and granite crags. The white space that separated the Upset Rapid and the alpinist said things that I would much prefer to leave to the white space to say—violin phraseology about courage and lack of courage and how they can exist side by side in the human breast. In the juxtaposition of those two cards lay what made this phase of the writing process the most interesting to me, the most absorbing and exciting. Those two weeks on the picnic table notwithstanding, this phase has also always been the briefest. After putting the two cards together, and then constructing around them the rest of the book, all I had to do was write it, and that took more than a year.

Developing a structure is seldom that simple. Almost always there is considerable tension between chronology and theme, and chronology traditionally wins. The narrative wants to move from point to point through time, while topics that have arisen now and again across someone's life cry out to be collected. They want to draw themselves together in a single body, in the way that salt does underground. But chronology usually dominates. As themes prove inconvenient, you find some way to tuck them in. Through flashbacks and flash-forwards, you can move around in time, of course, but such a structure remains under chronological control and can't do much about items that are scattered thematically. There's nothing wrong with a chronological structure. On tablets in Babylonia, most pieces were written that way, and nearly all pieces are written that way now. After ten years of it at *Time* and *The New Yorker*, I felt both rutted and frustrated by always knuckling under to the sweep of chronology, and I longed for a thematically dominated structure.

In 1967, after spending a few weeks interviewing the art historian Thomas P. F. Hoving, who had recently been made director of the Metropolitan Museum, I found in going over my notes that his birth-to-present chronology was particularly unaccommodating to various themes. For example, he knew a whole lot about art forgery. As a teenager in New York, he came upon "Utrillos," a "Boudin," and a "Renoir" in a shop in the East Fifties, and sensed that they were fakes. Eight or ten years later, as a graduate student, he sensed wrong and was stung in Vienna by an art dealer selling "hot" canvases from "Budapest" during the Hungarian Revolution. Actually, they were forgeries turned out the previous day in Vienna. In later and wiser years, he could not help admiring Han van Meegeren, who created an entire fake early period for Vermeer. In the same manner, he admired Alfredo Fioravanti, who fooled the world with his Etruscan warriors, which were lined up in the Met's Greek and Roman galleries until they were discovered to be forgeries. Most of all, he came to appreciate the wit of a talented crook who copied a silver censer and then put his tool marks on the original. At one point, Hoving studied the use of scientific instruments that help detect forgery. He even practiced forgery so he could learn to recognize it. All this having to do with the theme of forgery was scattered all over the chronology of his life. So what was I going to do to cover the theme of art and forgery? How was I going to handle, in this material, the many other examples of chronology versus theme? Same as always, chronology foremost? I threw up my hands and reversed direction. Specifically, I

"I'm sorry. Am I reading too brightly?"

remembered a Sunday morning when the museum was "dark" and I had walked with Hoving through its twilighted spaces, and we had lingered in a small room that contained perhaps two dozen portraits. A piece of writing about a single person could be presented as any number of discrete portraits, each distinct from the others and thematic in character, leaving the chronology of the subject's life to look after itself (*Fig. 1*).

Hoving had been, to put it mildly, an

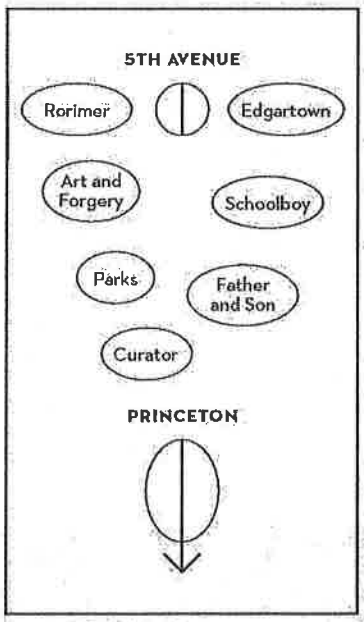


FIG. 1 *A Roomful of Hovings*

unpromising youth. For example, after slugging a teacher he had been expelled from Exeter. As a freshman at Princeton, his highest accomplishment was "flagrant neglect." How did Peck's rusticated youth ever become an art historian and the director of one of the world's greatest museums? The structure's two converging arms were designed to ask and answer that question. They meet in a section that consists of just two very long paragraphs. Paragraph 1 relates to the personal arm, Paragraph 2 relates to the professional arm, and Paragraph 2 answers the question. Or was meant to.

Other pieces from that era were variously chronological, none more so than this one, where the clock runs left to right in both the main time line and the set pieces hanging from it (*Fig. 2*).

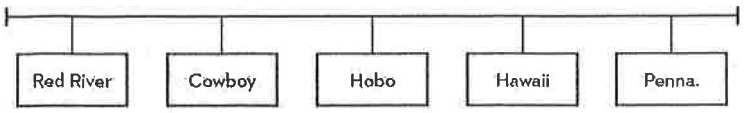


FIG. 2 *Journey—16 Wild Meals*

Written in 1968 and called "A Forager," it was a Profile of the wild-food expert Euell Gibbons, told against the background of a canoe-and-backpacking journey on the Susquehanna River and the Appalachian Trail.

"Travels in Georgia" (1973) described an episodic journey of eleven hundred miles in the state, and the story would work best, I thought, if I started not on Day 1 but with a later scene involving a policeman and a snapping turtle (*Fig. 3*).

So the piece flashed back to its beginnings and then ran forward and eventually past the turtle and on through the remaining occurrences. As a nonfiction writer, you could not change the facts of the chronology, but with verb tenses and other forms of clear guidance to the reader you were free to do a flashback if you thought one made sense in presenting the story.

Each of those ancient structures was worked out after copying with a typewriter all notes from notebooks and transcribing the contents of microcassettes. I used an Underwood 5, which had once been a state-of-the-art office typewriter but by 1970 had been outclassed by the I.B.M. Selectric. With the cassettes, I used a Sanyo TRC5200 Memo-Scriber, which was activated with foot pedals, like a sewing machine or a pump organ. The

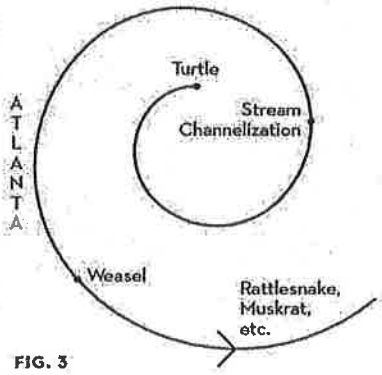


FIG. 3

note-typing could take many weeks, but it collected everything in one legible place, and it ran all the raw material in some concentration through the mind.

The notes from one to the next frequently had little in common. They jumped from topic to topic, and only in places were sequentially narrative. So I always rolled the platen and left blank space after each item to accommodate the scissors that were fundamental to my advanced methodology. After reading and rereading the typed notes and then developing the structure and then coding the notes accordingly in the margins and then photocopying the whole of it, I would go at the copied set with the scissors, cutting each sheet into slivers of varying size. If the structure had, say, thirty parts, the slivers would end up in thirty piles that would be put into thirty manila folders. One after another, in the course of writing, I would spill out the sets of slivers, arrange them ladderlike on a card table, and refer to them as I manipulated the Underwood. If this sounds mechanical, its effect was absolutely the reverse. If the contents of the seventh folder were before me, the contents of twenty-nine other folders were out of sight. Every organizational aspect was behind me. The procedure eliminated nearly all distraction and concentrated only the material I had to deal with in a given day or week. It painted me into a corner, yes, but in doing so it freed me to write.

Cumbersome aspects there may have been, but the scissors, the slivers, the manila folders, the three-by-five cards, and the Underwood 5 were my principal tools until 1984, a year in which I was writing about a schoolteacher in Wyoming and quoting frequently from a journal she began in 1905. Into several late drafts of that piece, I laboriously typed and retyped those journal entries—another adventure in tedium. Two friends in Princeton—Will Howarth, a professor of English, and Rich-

ard Preston, one of his newly minted Ph.D.s—had been waxing evangelical for months on end about their magical computers, which were then pretty much a novelty. Preston put me in touch with Howard J. Strauss, in Princeton's Office of Information Technology. Howard had worked for NASA in Houston on the Apollo program and was now in Princeton guiding the innumerate. For a couple of decades, his contribution to my use of the computer in teaching, researching, and writing would be so extensive that—as I once wrote—if he were ever to leave Princeton I would pack up and follow him, even to Australia. When I met him in 1984, the first thing he said to me was "Tell me what you do."

He listened to the whole process from pocket notebooks to coded slices of paper, then mentioned a text editor called Kedit, citing its exceptional capabilities in sorting. Kedit (pronounced "kay-edit"), a product of the Mansfield Software Group, is the only text editor I have ever used. I have never used a word processor. Kedit did not paginate, italicize, approve of spelling, or screw around with headers, WYSIWYGs, thesauruses, dictionaries, footnotes, or Sanskrit fonts. Instead, Howard wrote programs to run with Kedit in imitation of the way I had gone about things for two and a half decades.

He wrote Structur. He wrote Alpha. He wrote mini-macros galore. Structur lacked an "e" because, in those days, in the Kedit directory eight letters was the maximum he could use in naming a file. In one form or another, some of these things have come along since, but this was 1984 and the future stopped there. Howard, who died in 2005, was the polar opposite of Bill Gates—in outlook as well as income. Howard thought the computer should be adapted to the individual and not the other way around. One size fits one. The programs he wrote for me were molded like clay to my requirements—an appealing approach to anything called an editor.

Structur exploded my notes. It read the codes by which each note was given a destination or destinations (including the dustbin). It created and named as many new Kedit files as there were codes, and, of course, it preserved intact the original set. In my first I.B.M. computer, Structur took about four minutes to sift and separate fifty thousand words. My first computer cost five thousand dollars. I called it a five-thousand-dollar pair of scissors.

I wrote my way sequentially from Kedit file to Kedit file from the beginning to the end of the piece. Some of those files created by Structur could be quite long. So each one in turn needed sorting on its own, and sometimes fell into largish parts that needed even more sorting. In such phases, Structur would have been counterproductive. It would have multiplied the number of named files, choked the directory, and sent the writer back to the picnic table, and perhaps under it. So Howard wrote Alpha. Alpha implodes the notes it works on. It doesn't create anything new. It reads codes and then churns a file internally, organizing it in segments in the order in which they are meant to contribute to the writing.

Alpha is the principal, workhorse program I run with Kedit. Used again and again on an ever-concentrating quantity of notes, it works like nesting utensils. It sorts the whole business at the outset, and then, as I go along, it sorts chapter material and subchapter material, and it not infrequently arranges the components of a single paragraph. It has completely served many pieces on its own. When I run it now, the action is instantaneous in a way that I—born in 1931—find breathtaking. It's like a light switch. I click on "Run Alpha," and in zero seconds a window appears that says, for example:

> Alpha has completed 14 codes and 1301 paragraph segments were processed. 7246 lines were read and 7914 lines were written to the sorted file.

One line is 11.7 words.

Kedit's All command shows me all the times I use any word or phrase in a given piece, and tells me how many lines separate each use from the next. It's sort of like a leaf blower. Mercilessly, it will go after fad words like "icon," "iconic," "issues," "awesome," "arguably"; and it suggests how much of "but" is too much "but." But its principal targets are the legions of perfectly acceptable words that should not appear more than once in a piece of writing—"legions," in the numerical sense, among them, and words like "expunges," "circumvallate," "horripilation," "disjunct," "defunct," "amalgamate," "ameliorate," "defecate," and a few thousand others. Of those which show up more than once, All expunges all.

When Kedit*w came along—Kedit for Windows—Howard rewrote everything, and the task was not a short one. In 2007, two years after he died, a long e-mail appeared in my in-box addressed to everyone on the "KEDIT for Windows Announcement list"—Subject: "News About KEDIT." It included this paragraph:

> The last major release of KEDIT, KEDIT for Windows 1.5, came out in 1996, and we are no longer actively working on major "new feature" releases of the program. Sales have gradually slowed down over the years, and it now makes sense to gradually wind down.

It was signed "Mansfield Software Group, Storrs CT."

This is when I began to get a true sense of the tensile strength and long dimension of the limb I was out on. I replied on the same day, asking the company how much time—after half a million words in twenty-three years—I could hope to continue using Kedit. In the back-and-forth that followed, there was much useful information, and this concluding remark:

> If you run into any problems with KEDIT or with those macros in the future, let me know. You will definitely get my personal attention, if only because I'll be the only one left at my company!

It was signed "Kevin Kearney."

Driving to Boston not long ago, I stopped in at Storrs, home of the University of Connecticut, to meet him and show him some of the things Howard Strauss had done. In this Xanadu of basketball, I found Kearney and his wife, Sara, close to the campus in a totally kempt small red house previously occupied by a UConn basketball coach. From my perspective, they looked young enough and trim enough to be shooting hoops themselves, and that to me was especially reassuring. He was wearing running shoes, a Metropolitan Museum T-shirt. He had an alert look and manner, short, graying dark hair, a clear gaze, no hint of guile—an appealing, trusting guy.

Before long, Sara went off to an appointment, leaving us at the dining table with our laptops open like steamed

clams. I was awestruck to learn that he had bought his first personal computer only two years before I had, and I was bemused to contemplate the utterly disparate vectors that had carried us to the point of sale—me out of a dark cave of pure ignorance and Kearney off a mainframe computer.

He grew up in New Haven and in nearby Madison, he told me, and at UConn majored in math, but he developed an even greater interest in computer science. In those pre-P.C. days, people shared time on the university's mainframe—a system that was, in its way, ancestral cloud computing. By 1982, he still did not own a personal computer and could not afford a five-thousand-dollar pair of anything. Apple II had been on the market since 1977 but did not interest him. It was "too much of a toy"—its display was only forty characters wide. The displays on I.B.M. P.C.s were eighty characters wide. His father helped him buy one. Five thousand dollars in 1982 translates to twelve thousand dollars now.

On the mainframe, everyone from undergraduates to programmers used an evolving variety of text editors, most notably Xedit, which was written at I.B.M. by Xavier de Lamberterie and made available in 1980. Kevin Kearney was so interested in Xedit that he bought forty manuals out of his own pocket and offered them to students and faculty. Then, after the new I.B.M. P.C.s appeared, and he had bought his first one, an idea he addressed was how to achieve mainframe power in a P.C. editor. "Xedit was in a different language that only worked on mainframes," he told me. "Xedit was in mainframe assembler language, almost like machine language." What was needed was a text editor that mainframe programmers could use on their P.C.s at home. So Kearney, aged twenty-eight, cloned Xedit to accomplish that purpose. Moreover, he said, "You could do some nifty additional things that didn't exist on the mainframe. On the mainframe you couldn't scroll. You couldn't word-wrap to a new line."

"How come when men cook outdoors it's 'barbecuing,' but when women do it it's 'witchcraft'?"

Writing the initial version of Kedit took him about four months, in late 1982. Like a newborn bear cub, it amounted to the first one per cent of what it would eventually become. "There are two kinds of editors," Kearney continued. "One sees things as characters; Kedit sees it as a bunch of lines. It's more primitive, in a sense, like keypunches. Each line is like one card." He said he started with "some things from Xedit plus suggestions from others," and his goal was "convenient text editing." After a pause, he added, "I'd rather have Kedit be a good text editor than a bad word processor." He asked me to take care not to create an impression that he invented much of anything. "What I did was package in a useful way a number of ideas. I.B.M. seemed happy enough with the cloning. There was no hint that they objected."

At a conference in Boston in March, 1984, Kevin and Sara met Howard Strauss, showed him Kedit, and sought his advice. A month or so later, Strauss telephoned Kearney for more talk, and the upshot was that Princeton bought Kedit's first site license.

I asked Kearney how many users, nationally and globally, Kedit has now. "Fewer than there used to be" is as close as he would come to telling me, but he said he still gets about ten e-mails a week asking for support.

"Are they essentially all from programmers, or are there other users in the ignorant zone like me?"

"Yes."

Kedit did not catch on in a large way at Princeton. I used to know other Kedit users—a historian of science, a Jefferson scholar. Aware of this common software, we nodded conspiratorially. Today on the campus, the number of people

CATHOLICISM

There's a possum who appears here at odd times,
often walking up the path to the house
in the middle of the day like a little ghost
with a long tail and a blank expression on his face.

He likes to slip behind the woodpile
but sometimes he gets so close to the window
where I am standing with a glass in my hand
that I start to review my sins, systematically

going from one commandment to the next.
What is it about him that causes me
to begin an examination of conscience,
calling to mind my failings in this time of reflection?

It could just be the twitching of the tail
and that white face, but his slow priestly pace
also makes a contribution, as do the tiny paws,
more like hands, really, with opposable thumbs

able to carry a nut or dig a hole in the earth
or lift a chalice above his head
or even deliver a document,
I am thinking as he nears the back door,

not merely a subpoena but an order
of excommunication with my name and a date
written in fine Italian ink
and signed with a flourish of the papal sash.

—*Billy Collins*

using Kedit is roughly one. Not long ago, I asked Jay Barnes, an information technologist at Princeton, if he thought I was enfolded in a digital time warp. "Right; yes," he said. "But you found it and it works, and you haven't switched it because of fashion." Or, as Tracy Kidder wrote in 1981, in "The Soul of a New Machine," "Software that works is precious. Users don't idly discard it."

Kevin Kearney, who says he is "semi-retired," hopes not "to see a bunch of orders showing up," and he asked me to make clear that Kedit was "very much a thing of its time," and its time is not today. I guess I'm living evidence of that.

When I would thank Howard Strauss for the programs he wrote and amplified and updated, he always said, "Oh, it was no trouble; there was nothing to it; it was all simple."

For many years in my writing class, I drew structures on a blackboard with chalk. In the late nineteen-nineties, I fell off my bicycle, massively tore a rotator cuff, underwent surgery, spent months in physical therapy, and had to give up the chalk for alternative technologies. I was sixty-eight. Briefly, I worked things out with acetates and overhead projection. Enduringly, I was once again helped beyond measure by Howard Strauss.

With PowerPoint, he modernized my drawings of the structures of pieces written before I bought my first computer; and in 2005, during the last months of his life, he was still taking my rough sketches and turning them into structural presentations, some of them complicated and assisted by the use of color. Students in class would say things like "Wow, those PowerPoints are really good. How did you do that?" To which I responded, as I still do, "Oh, it was no trouble; there was nothing to it; it was all simple; Howard Strauss did it."

Showing in class the structural diagrams of "Travels in Georgia," I used to recite, more or less, "It's the story of a journey, and hence it represents a form of chronological structure, following that journey as it was made through space and time. There are structural alternatives, but for the story of a journey they can be unpromising and confusing when compared with a structure that is chronologically controlled." Et cetera. Et cetera, in an annual mantra about what I thought to be axiomatic: journeys demand chronological structures. That was before 2002, when I went from a truck stop in Georgia to a product delivery elsewhere in Georgia to an interior wash in South Carolina to a hazmat manufacturer in North Carolina and on across the country to the state of Washington in a sixty-five-foot chemical tanker owned and driven by a guy named Don Ainsworth.

Think about it. Think how it appeared to the writer when it was still a mass of notes. The story goes from the East Coast to the West Coast of the United States. Has any other writer ever done that? Has any other writer ever not done that? Even I had done something like it in discussing North American geology in "Annals of the Former World." You don't need to remember much past Meriwether Lewis, George R. Stewart, John Steinbeck, Bernard DeVoto, Wallace Stegner, and William Least Heat-Moon in order to discern a beaten path. If you are starting a westbound piece in, say, Savannah, can you get past Biloxi without caffeinating the prose? If Baltimore—who is going to care if you get through Cumberland Gap? New York? The Hackensack River. If you start in Boston, turn around. In a structural sense, I turned around—once again reversing a prejudice. In telling this story, the chronology of the trip would not only be awkward but would also be a liability.

Ainsworth and I started in Bankhead, Georgia, where I joined him, and, as it happened, met him, after five years of correspondence. He had read my "Looking for a Ship," and had written to me saying that if I was going to go out on the ocean with people like that I should go

out on the road with people like him. When we connected, at the truck stop in Bankhead, almost the first thing he said was "Now, this might not work out." He assured me that if things did not prove sufficient for my purposes he would understand completely and would take me to the nearest commercial airport. I was to feel free to call it quits anytime, anywhere. Understood? I got out of his truck in Tacoma, having ridden three thousand one hundred and ninety miles with him.

Just the fact of those three thousand one hundred and ninety miles, if mentioned in the past tense early in the piece, might open the way to a thematic structure. The lead should be somewhere on the road in the West. The reader would see the span of the journey, the general itinerary. Thematic details could coalesce in varying categories and from all over the map in the form of set pieces on

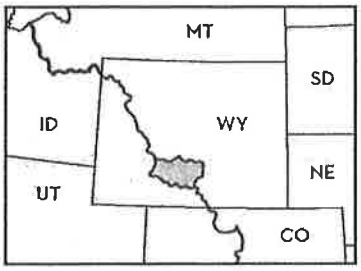


FIG. 4 *Great Divide Basin*

truck stops, fuel economy, driver demographics, Ainsworth's idiosyncrasies, and other topics. Where to start?

In the state of Wyoming are four thousand square miles called the Great Divide Basin, where the Continental Divide itself divides, like separating strands of old rope, surrounding a vast landscape that does not drain to the Atlantic or the Pacific. We went right through it in the chemical tanker, and I thought it might be an oddly interesting place in which to begin (*Fig. 4*).

The lead would be chronological (rolling westward), and after the random collection of themes the final segment would pick up where the first one left off and roll on through the last miles to the destination. Thus two chronological drawstrings—one at the beginning of the piece, the other at the end—would pull tight the sackful of themes.

Good idea, but I scrapped the Great Divide Basin. It was too far east. There was too much stuff from Idaho, Oregon, and so forth that ought best to be in the thematic groupings. So, to tell of this trip from coast to coast—after establishing my own credentials with a personal preamble in the New Jersey bad-driver clinic—I started in eastern Oregon with Deadman Pass and Cabbage Hill and Ainsworth saluting a girl in a bikini.

From Atlanta and Charlotte to North Powder, Oregon, this was the first time that Ainsworth had so much as tapped his air horn. In three thousand one hundred and ninety miles I rode with him he used it four times.

Of the seven thematic sections that followed, each, in concept, would be much like the section I coded TSG (*Fig. 5*). If there is one indispensable theme about the big behemoth trucks, it is the nature and description of truck stops generally. The principal truck stops described in the piece (and dotted here) would be in places like Kingdom City, Missouri; Bankhead, Georgia; Oak Grove, Kentucky; and Little America, Wyoming.

Explosives are carried in liquid form in tankers. The more prudent truck stops have designated "safe havens"—Class 1 parking spaces situated, if not in the next county, at least, as Ainsworth put it, "a little away from the rest of the folks who may not want to be there when the thing lights off."

In recapitulation, the structure of the story was this (*Fig. 6*):

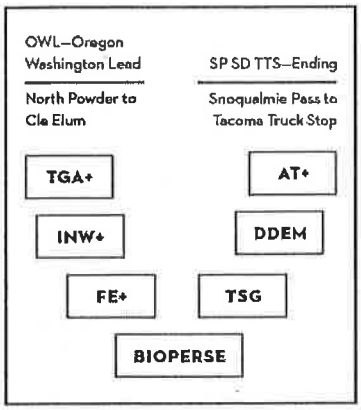


FIG. 6

In 2003, I was hoping to find a way to ride on a river towboat as part of a series of pieces on freight transportation. I had reason not to be optimistic. Corporations prepare for journalists with bug spray. They are generally less approachable than, say, the F.B.I., and, if at all agreeable, take even more precautions. I had been rebuffed flatly by various companies and jilted by some that at first said yes. Vice-presidents said yes. C.E.O.s heard about it and said no.

Vice-president: But, Adolf, this guy is fangless. He's not Seymour Hersh. He's not Upton Sinclair.

Adolf: I don't care who he is. He's a journalist, and no matter what they write no journalist is ever going to do our company any kind of good.

Against that background, and some days after writing a letter of request, I called Memco Barge Lines, in St. Louis, and asked for Don Huffman. He said, "What day would you like to go?"

It was as if I were talking to Southwest Airlines. Tows are moving about the country all the time. When and where would I like to get on one? I flew to St. Louis, and went up to Grafton, where the Billy Joe Boling came along after a while and picked me off the riverbank with a powered skiff.

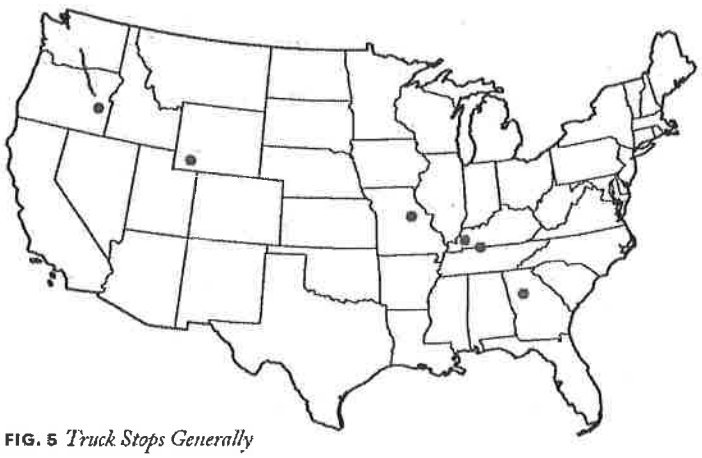


FIG. 5 *Truck Stops Generally*

The river was the Illinois—barge route from the Mississippi to the outskirts of Chicago. At Grafton, in southern Illinois, the Billy Joe Boling collected its fifteen barges from larger tows in the Mississippi, wired them taut as an integral vessel, and went up the Illinois until constricting dimensions of the river forced another exchange, with a smaller towboat, and the Billy Joe Boling took a new rig of fifteen barges downstream. This endless yo-yo was not exactly a journey in the Amundsen sense. There was no vestige of a beginning, no prospect of an end. If ever there was a journey piece in which a chronological structure was pointless, this was it. In fact, a chronological structure would be misleading. Things happened, that's all—anywhere and everywhere. And they happened in themes, each of which could have its own title at the head of a section, chronology ignored.

The over-all title was "Tight-Assed River." There were eight sections. One section's title was "Calling Traffic" (*Fig. 7*). The arrows coincide with places where things happened, such as Creve Coeur Landing, Kickapoo Bend. But they are not consecutive in the story. Their colors correspond to the colors of channel buoys—red closer to the left bank, green closer to the right bank.

When I told my friend Andy Chase that I was coming out here, he said, "The way they handle those boats—gad! They go outrageous places with them. The ship handling is phenomenal." Andy is a licensed master of ships of any gross tons upon oceans, and he is also a professor at Maine Maritime Academy. His credentials notwithstanding, he said he would envy me being here. This tow is not altogether like an oceangoing ship. We are a lot longer than the Titanic, yes, but we are a good deal lighter. We weigh only thirty thousand tons. Yet that is surely enough to make our slow motion massive, momentous, tectonic. Fighting the current with full left rudder and full left flanking rudder in the eighty-degree turn at Creve Coeur Landing, Kickapoo Bend, Tom Armstrong says, "I'm trying to get it pointed up before it puts me on the bank. There's no room for maneuvering. You can't win for losing. You just don't turn that fast. You just don't stop that fast. Sometimes we don't make our turns. We have to back up. The Illinois River's such a tight-assed river."

Where to end a piece? As noted above, I usually know from the outset what the last line will be. In 1982, I was walking around in the Alps with a patrol of Swiss soldiers.

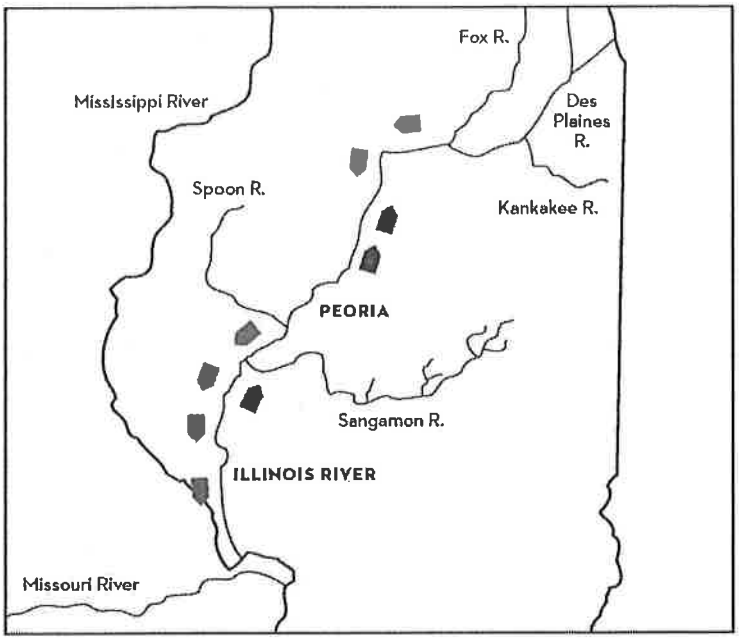


FIG. 7 *Calling Traffic*

We had been together three weeks and were plenty compatible. Straying off limits, not for the first time, we went into a restaurant called Restaurant. Military exercises were going on involving mortars and artillery up and down the Rhone Valley, above which the cantilevered Restaurant was fourteen hundred feet high. The soldiers had a two-way radio with which to receive orders, be given information, or report intelligence to the Command Post. They stirred their fondue with its antenna. They sent coded messages to the Command Post: "A PEASANT IN OBERWALD HAS SEEN FOUR ARMORED CARS COMING OUT OF ST. NIKLAUS AND HEADING FOR THE VALLEY." More fondue, then this: "TWO COMPANIES OF ENEMY MOTORIZED FUSILIERS HAVE REACHED RARON. ABOUT FIFTEEN ARMORED VEHICLES HAVE BEEN DESTROYED." And later this: "AN ATOMIC BOMB OF PETITE SIZE HAS BEEN DROPPED ON SIERRE. OUR BARRICADES AT VISP STILL HOLD. THE BRIDGES OF GRENGIOLS ARE SECURE. WE ARE IN CONTACT WITH THE ENEMY."

Setting down a pencil and returning to the fondue, I said to myself, "There is my ending." The petite A-bomb was a gift to structure. Ending pieces is difficult, and usable endings are difficult to come by. It's nice when they just appear in appropriate places and times.

After running aground, the river pilot Mel Adams said, "When you write all this down, my name is Tom Armstrong."

William Shawn once told me that my pieces were a little strange because they seemed to have three or four endings. That surely is a result of preoccupation with structure. In any case, it may have led to an experience I have sometimes had in the struggle for satisfaction at the end.

Look back upstream. If you have come to your planned ending and it doesn't seem to be working, run your eye up the page and the page before that. You may see that your best ending is somewhere in there, that you were finished before you thought you were.

People often ask how I know when I'm done—not just when I've come to the end, but in all the drafts and revisions and substitutions of one word for another how do I know there is no more to do? When am I done? I just know. I'm lucky that way. What I know is that I can't do any better; someone else might do better, but that's all I can do; so I call it done. ♦