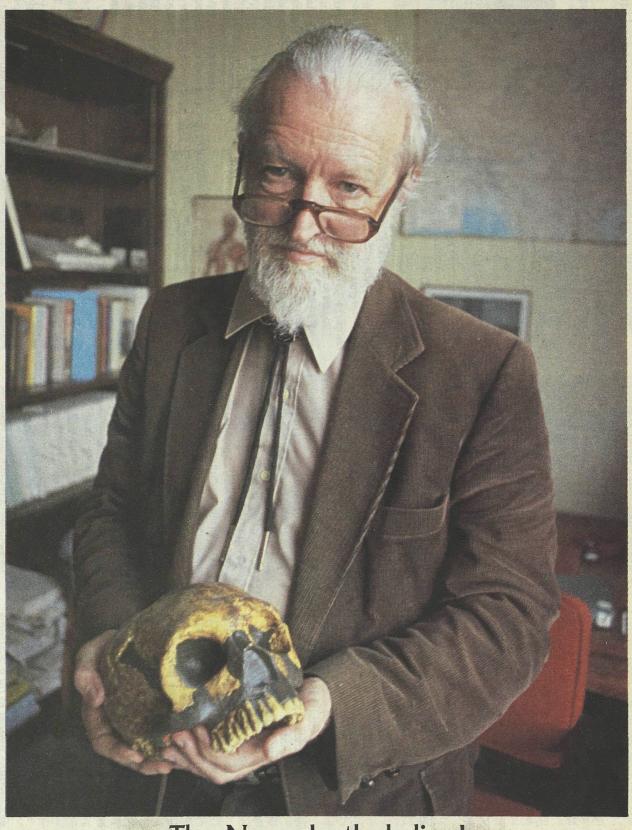
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The University of Michigan

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The Neanderthals live! says anthropologist C. Loring Brace

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St-Bénézet Bridge** and St-Nicolas Chapel (ABY).

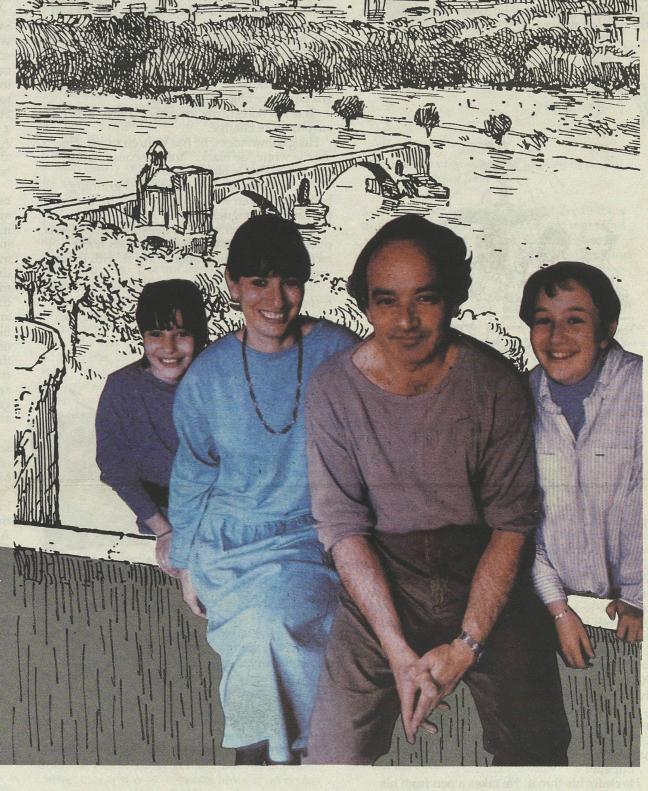
The bridge of the song, which spanned the river by way of the island, was 900m-975yds long

when completed in 1190 and was, for years, the only crossing so far down the Rhône. The twenty-two arches have been reduced with the passage of time, by storm and floodwater, to four. On one of the piers stands St-Nicolas Chapel (BY), with two storeys, one Romanesque, one Gothic.

Legend has it that in 1177, a young shepherd boy, Bénézet, was commanded by voices from heaven to build a bridge across the river at a spot indicated by an angel. Everyone thought him crazy until he proved a that he was inspired by miraculously lifting a huge block of stone. Bishops gave money, funds flowed in, volunteers appeared and formed

Text from the Michelin Tourist Guide to Provence

Andrea, Elena, Nicholas and Francesca Delbanco. The Michelin guidebook reports that the famed footbridge in the background was too narrow for ring dancing, which took place on an island midstream. Thus the correct words to the song are not 'Sur le pont d'Avignon/On y danse, tous en rond.'



In the summer of 1987, the author Nicholas Delbanco (director of the Hopwood Awards Program, and the M.F.A. in Writing) took his family to the south of France. It was an act of return as well as exploration; he and his wife Elena spent much of their young married life in Provence. Now, with two daughters, they undertake "a sentimental journey to our early haunts." These passages come from his account of that journey, a travel-book and memoir. The Atlantic Monthly Press will publish Running in Place: Scenes from the South of France in July.

A SENTIMENTAL OUR Vacation vignettes from southern France

By Nicholas Delbanco

rom Les Eyzies to Lourmarin is a long day's driving, though it seems short on the map. We arrive at dusk. The road out of Avignon has heavy afternoon traffic; the main streets of Cavaillon and Lauris do not beguile the passerby; the fruit sold in the roadside stands looks pinched and poor. We drive through flatlands slowly rising; the heat does not abate. There are fields of sunflowers, then lavender, then vineyards on the slope.

The landscape feels familiar, not because we have been here but have seen it painted: the geometric outcroppings of rock, the plane trees and the cypress-spires and the high white wisps of cloud above the foothills north. The sign for Lour-

marin is painted on a wooden arrow where we veer, sharply, left. A fat man on a bicycle looks up at us, disdainful of the squealing wheels; Elena says he should have breadsticks jutting from a basket on his back.

Our rented house sits on a hill near the village; the directions are precise. We find Sauge et Thyme with no trouble; wild thyme sprouts through the driveway gravel and sage in the red clay. The view — that part of it that has not been blocked off by trees — is expansive: the Chateau de Lourmarin, a town hall, churches, shops and fields, and then the Luberon range.

One notion I had had (increasingly unlikely in the increasing present) was to find a Frenchman

who had traveled to the New World from this region years before. The French had been the first white men to travel through Michigan, the state we now call home; the voyages of Pere Marquette, La Salle, Champlain and others had organized my nightly reading for a year. The French who crisscrossed Michigan, it stood to reason, had gone there out of duty or devotion or ambition or disgrace. They spawned lilac bushes and placenames and children and moved on north, west and south; I hoped to find some lesser Cadillac from some little town in Provence.

This did not work. The explorers were Normans or Bretons or Gascons. A few had sailed out of Marseilles. But I could find no Provencal explorer,

SENTIMENTAL

no meridional man of note who settled in our part of the New World. And the more I thought about it, the less vivid the idea. Frenchman goes to

Michigan in 1687; three hundred years thereafter,

the novelist returns.



'Will you stand in the way of progress? Will you impede our history?

Elena, shopping, is stopped in the Lourmarin open-air market by a man perhaps 30 years old. He has slick black hair and a pencil-thin moustache; he brandishes a clipboard and a question-naire. He works for the Office of Development and Tourism, he says; the banks of the Durance have been underutilized. There are plans for enlarged use of the river. He has been conducting a survey and hopes she will respond. "It will only take

"Forgive me, I'm not from these parts." "Madame, that is clear. It's all the more reason

I want your opinion; I don't require answers from the natives. They would not be tourists." "I like it here," she says. "I don't see the need

for development."

"Will you stand in the way of progress? Will you impede our history?" "Impede?"

He clears his throat. He takes a pen from his ear. She agrees to join his survey, to not be an impediment. They retreat to the stone bench by the fountain. He sits. He asks her for her name, nationality, and age. I join them when he asks for her address. There is an eddy of paper and dust in the car park; doors slam.

What would be the optimal usage, he wants to know, for the proposed development? Would madame sail on the river or canoe on it or swim in it, does she like aquatic sports? The Durance is a cold stony trickle. At other times it floods. Would she play tennis on the banks, would she go fishing or rafting by preference; where would she like the parking facilities to be situated, please? He shows her a map of projected facilities: here the boathouse, here the restaurant and tennis courts, and here the parking structure for the fishermen and those thousands who will come to waterski.

"But the river is dry," she protests.

"There are modern times. There are ways. We will make it a lake."

"Le Parlement, le mistral, et la Durance sont les trois fleaux de la Provence," I say.

"Monsieur?"

"I don't remember who said it. But Parliament, the mistral and this river are the three disasters of Provence."

"This is your husband?" he asks. Elena tries not to offend him. She promises to read the questionnaire. He removes it from

his clipboard and we look. There are pictures of

swimmers, of boats. There are flow charts for traffic patterns over bridges not yet built. He must have a certain number of responses, he explains, or his day has been a failure and the project will languish and those who wish to sail or water-ski will have to travel elsewhere for the opportunity. Thus the hard-earned hope of tourism will fail.

We like the region very much, we say, we are contented tourists. "You are romantic," he says. His pants are blue, cuffs frayed.

"It is not necessarily romantic," I say, "to be suspicious of change.

His gaze wanders; he has written us off. His shirt is white, tie black. "You are conservative romantics, that is plain. Ca se voit."

The fountain has two stone faces: grinning, bulbous children with wide mouths. Moss coats the gargoyle tongues.

"I wish you well with the questionnaire." Elena puts a check in the box that represents horse racing. "But it is not proper to argue with those you survey."

"M'sieurdame." He stands. "I shall tabulate your response." A tall blond family in hiking shorts approaches. They may prove more suitable; he



Petrarch first glimpsed Laura in a church in Avignon.

Petrarch first glimpsed Laura in a church in Avignon. This is well recorded, and by the poet himself: on April 6, 1327, in the church of Sainte-Claire, he found his muse. The Canzoniere ensued. Begun in 1330, they consist of three hundred and seventeen sonnets, twenty-nine canzoni, nine sestinas, seven ballads, and four madrigals. Laura died — on April 6 again in 1348, most probably of the plague.

Petrarch detested Avignon but liked Fontainede-Vaucluse. There he retreated, often, between 1337 and 1352, to phrase his courtly fancy by the waters of the Sorgues. A museum in the little town displays a collection of portraits of Laura. Her face changes with the painter, and we know little about her in incontestable fact. Laura de Sabran, Laura du Thor, Laura Colonna and Laura de Caumont have been serially proposed as imagination's original; she has as many guises as Shakespeare's "dark lady," though she comes to us in white. Most plausibly she was the wife or daughter of a man called Paul de Sade, or so insisted the Abbe de Sade and, later, the Marquis.

I like that lineage best. It's fine to think the author of Justine should be related to a woman "remarkable for her virtue," Petrarch's chaste ideal. The Marquis himself liked the notion; he wanted to keep Laura's ashes secure in a family vault. His ruined castle at Lacoste is an easy drive (and would have been a hard day's ride) from Fontaine-de-Vaucluse. Though marguis of the region for 30 years, he lived in it for only four.

De Sade's castle on the hill looks uninviting. Still, it is being restored. Boys and girls with wheelbarrows carry in cement; they must cross some planking laid across a ditch. The ditch was once a moat, no doubt, and there may be method in all of this rearranged rubble. Yet the task to cite another author of the region — looks Sisyphean, thankless at best; it is a big hill and a heavy rock and the labor less than skilled. Again it seems something de Sade would enjoy: all these sun-scorched children sweating in his honor, smoking, sharing tents.

Albert Camus made his home in Lourmarin because of the size of the sky. It reminded him, apparently, of Algeria. He wanted to be anonymous, or tried to be, sitting in the cafe with an invented name - smiling, nodding, affable, a man of the people, the people would say. His address is in the phone book still; he is buried not a mile from where we stay. In the village cemetery there are mausoleums everywhere, plastic flowers and photographs of the beloved and sculptured likenesses and marble Bibles: the paraphernalia of sentiment and grief, men watering rosebushes, their mothers at their feet. So Camus' grave is all the more moving, with its ancient-seeming stone and no inscription other than his name. Lavender grows thickly as its only decoration. His wife's stone matches; they lie unremarked.

Heat at midday; then thunder and rain. There is something self-consciously simple about the poets of this place: Jean Giono, for instance, and even Mistral and his Felibriste crew. (Like those who "antique" new furniture by drilling wormholes in. Or build a ruin purposively so as to make the view historical, or write with a quill pen.) Alphonse Daudet supposedly wrote his Letters From My Windmill from a windmill in Fontvieille. In fact he wrote it in Paris, at a civilized remove. But the windmill is now a museum, and there are photographs. Daudet sits Au Mas de Vers en Camargue on a straight-backed chair, smoking, sporting his black hat. Frederic Mistral sits next to him, in an armchair; their feet are hidden by high grass. Mistral is in a light suit and a vest and is



Daudet and Mistral are posed, lugubrious. They do not pretend to conversation or amusement.

JOURNEY

holding what appears to be a walking stick or cane. The men are posed, lugubrious. They do not pretend to conversation or amusement; their sightlines do not meet. Daudet looks slightly younger. Mistral sits closer to the camera and is therefore enlarged. Daudet's moustache and side-whiskers are dark, Mistral's goatee has gone white. What these chairs are doing in the field is anybody's

In the upstairs portion of the mill, the wall has a circle of names. They are the 32 winds of Provence; their names, the ticket-taker cautions, are not French but Provencal. She has taken insufficient tickets; she is bored this afternoon. "You'd be surprised," she tells me, "how many people come here for the mill and don't know there's a museum downstairs. Bien des gens. Often they are unaware that we have artifacts. Lettres de mon moulin, for example, was translated into Esperanto and Chinese. I am certain you didn't know that.

Also the Contes du Lundi." But if the museum devoted to Petrarch be a modern house, the windmill a museum, and the castle in Lacoste bear no resemblance now to that of the marquis, the Fountaine-de-Vaucluse itself is very much the same. Water still comes spewing out of the rockface, its throat full of rivers too deep for discovery, its underground cavern unplumbed. Men have dived to record depths and not gone to the bottom; they have sent down robots, and the robots — faced with openings too narrow to maneuver — have turned back. So where the water comes from, and what it looks like, gushing forth, is a question the poet continues to pose, a picture still to be drawn. What Petrarch saw we see. His friend Simone Martini, while in Avignon, illustrated Petrarch's copy of Virgil; Virgil too would have found in the Sorgues a subject fit for evocation in the ancient way. We have been imitating one another's imitations since we first held the mirror to nature and saw ourselves refracted in the pool.

The country is wind-swept continually. As with those northern peoples who have various terms describing ice, there are many words here for the nature of the wind. These are the thirty-two winds of Province: Tramountano, TempsDre, Mountagnero, Ventouresco, Aguieloun, Cisampo, Gregau, Auro-Bruno, Levant, Auro-Rousso, Vent-Blanc, Marin-Blanc, Eissero, Auro-Caudo, Vent de Souleu, En Bas, Marin Mie Jour, Vent de Bas, Foui, Vent Larg, Labe, Vent Di Damo, Pourmentau, Rousau, Narbounes, Travesso, Manjo Fango, Cers, Mistrau, Vent d'Aut, Biso and Auro-Drecho.

It has been blowing all night. The dead pine needles on the porch have eddied and collected as if swept. They make a pile behind the wall like a brown sleeping dog.

Good King Rene has been much celebrated for his several attainments. Scholar, poet, painter, linguist and musician, he was the light of the court. Duke of Anjou, Count of Provence, and King of Naples and Sicily, he died in 1480, at the age of 72; he knew Greek, Latin, Italian, Catalan and Hebrew, geology and law. Henry James, describing A Little Tour in France, found King Rene attractive. "He was both clever and kind," James avers, "and many reverses and much suffering had not embittered him nor quenched his faculty of enjoyment. He was fond of his sweet Provence, and his sweet Provence has been grateful; it has woven a light tissue of legend around the memory of Good King Rene."

He studied mathematics and muscatel grapes and married Isabelle of Lorraine when he was 12 years old; two years after her death, he married Jeanne de Laval. They face each other on the panels of The Burning Bush, Nicholas Froment's triptych in the Cathedrale de Saint Sauveur in Aix.

The king kneels on the left-hand side and Jeanne de Laval the right. Her face looks smart and severe. His is bulbous-nosed and strongjawed and not handsome, a face one still might see at the tabac, or driving a taxi, or drinking pastis. The later statue by David d'Angers, where the king holds the grapes he brought to the region, seems more prepossessing; it surveys the east end of the cours Mirabeau. But Nicholas Froment knew his subject, and there is blood and bone beneath the royal gown.

They are working on the cathedral, repairing the old baptistry; there is much litter and dust. I cannot find Le Buisson Ardent, though I remember it with clarity from years before. When asked for its location, the attendant does not know. I ask for the picture of Good King Rene, and she understands about Rene but does not know the picture; her business is floors. She is friendly, however apologetic, even — and she conducts me to a Black woman stacking chairs. She knows about King Rene also, but not the burning bush; she knows, however, that Marielle will know.

Marielle is getting brooms. Marielle will return in a minute. I look about again and, in the cloister, meet Marielle; she has three brooms under her arm. She is red-haired and voluble and anxious to meet me, but she does not know. There is, however, a map. On the map of the cathedral I locate the triptych and find its site in the aisle. It has been closed, the side panels folded over and, meeting in the center, padlocked shut.

A tour guide points at the ceiling, speaking German to her group. She laments the impropriety of juxtaposition, the 14th-century belfry, the 16-century Gothic nave, the very early baptistry (Merovingian, 5th century), and the Roman columns and Renaissance cupola; this gallimaufry of periods has neither distinction nor unity but nonetheless a certain charm. Her German is meticulous and her accent poor. It is, I remember, bad taste in the French to speak with a good German accent. I had very much wanted to see the Froment, its celebration of virginity, the castles of Beaucaire and Tarascon precisely rendered in the background, the clear-eyed inclusion of detail that persuades far more than mannerism can as to the painter's homage. The dozen Germans advance on the nave. The men have been to Barbados or Hawaii on a previous trip; they wear shirts with pineapples and patterns of coconut palms.

At the entrance to the cathedral a man sits, legs tucked under, cap held out. If you are a Christian, he says, if you believe in God then give me money, please. I am not and I do not and I will not, I tell him; the locked triptych has made me argumentative. Curse you — he hoists himself up on his



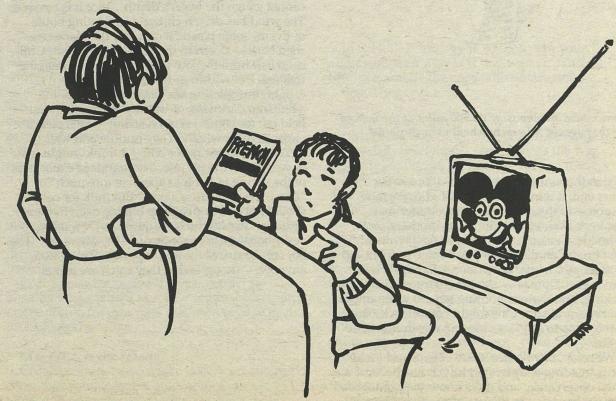
His curses are ingenious and lengthy, cleansing in their high-pitched hum.

knees — what business did you have in there anyhow, defiling it? His curses are ingenious and lengthy, cleansing in their high-pitched hum. By the time I'm out of earshot I feel fine.

Francesca watches television. She does so, she insists, in order to improve her French; she has seen these shows in America and likes to watch them dubbed. The reruns are many and various: soap operas, situation comedies, "Facts of Life" and "Three's Company" and "Hotel" and "Love Boat" and "Dynasty," police shows in the early evening, cartoons on Saturday. Tom and Jerry cackle in French, and so does Mickey Mouse. "Arnold et Willie" was once "Different Strokes," and there is something comical about these altered inflections, Arnold's quick Black canniness transformed into argot.

But it takes us time to understand why the shows sound wrong. There is no canned applause. The French use no dubbed laughter. So everything takes a split second too long; the intervals for double takes, the programmed pauses feel empty. Cesca watches the French version of quiz shows, game shows, MTV. Andrea, whose attention span is in any case much shorter, turns away impatiently, saying, "It's stupid. It's dumb."

The dubber represents, for me, one paradigm of the artist. When you notice how good a job has been done, it no longer is a good job. Like Joyce's dramatist, "invisible, refined out of existence, indifferent, paring his fingernails," the dubber most succeeds when no one sees him there. The witness who commends the excellent work of translation has registered the failure of that work instead.



Francesca watches television, she insists, in order to improve her French.

OURNEY Continued from p. 3

English writers seem to have as strong an affinity for the Midi as did Flemish painters before. A casual list of authors in this century who built or renovated or rented homes here could furnish a kind of "literary little England" for the enterprising tour guide with a degree and a bus. There are Huxley, Lawrence, Ford and Wells, Durrell, Wilson, Greene and Coward, Maugham, Bedford, Connolly — I list them at random on purpose, following neither chronology nor the alphabet. Not all of them stayed here, of course, and few are best known for their sojourns in France; some wrote travel books about a world elsewhere. (Witness Mornings in Mexico. Reflections on a Marine Venus. Journey Without Maps.) There is a story, possibly apocryphal, about a camel trip that Maugham took across the Sahara. He carried Proust's massive work with him and, having finished a page, tore it loose. He did not want the total weight and lightened his progress, sheet by chapter, until at the end of the journey there was nothing left. He owned, no doubt, a second copy at home. But somewhere decomposing on 500 miles of the Sahara lie the pages of A la recherche du temps perdu. This seems to me, if true, one proper version of usage — the camel track littered with language, the book in the head and not pack.



Somewhere decomposing on 500 miles of the Sahara lie the pages of A la recherche du temps perdu.

Stendhal wrote his *Memoires d'un touriste* 150 years ago; it remains a model of idiosyncratic response to the stimulus of travel. Merimee, Flaubert, Daudet, the Goncourt brothers, Zola (who like Cezanne, was born in Aix) wrote at least briefly on the region, and some of them did so at length. Lamartine, George Sand, Pichot, Canongue, Dumas — the list enlarges with the looking, and there is nothing new to write under the Provencal sun. One might compile a lexicon of referents to *sun* — as inescapable in literature as life.

We read *Little Women* aloud. Elena and I take turns, reading chapters nightly. It has become a ritual observance, and if we know we cannot read at night we do so in the late afternoon. The tale is mawkish, overlong; it candy-coats reality and

is often coy. Yet I am moved to near-tears by the plight of the family, mournful when they mourn, and happy when they celebrate. Something in the very act of reading the story aloud releases it from private censure; the speed of utterance is so much slower, more compelling, than that of silent scanning. There is a communion, nearly, in the communal audience, our daughters on the couch.

So comedy is funnier when other people laugh, and sorrow more convincing in shared silence, downcast looks. Therefore 1987 will be the summer of *Little Women*, as some summers ago in England we read Laura Ingalls Wilder, the adventures of her pioneering clan. Nor can I see *Little House on the Prairie* without a mental image of the girls' bedroom in Sandhurst-Hawkhurst, the window seat I read from in the English dark. Now Lourmarin contains New England's Concord, and Jo and Amy and Beth and the rest enlarge our company.

We have a drink in Cucuron, a village five miles from our own. Elena orders coffee and I a pastis; we sit beneath a plane tree, on the square. The restaurant next door will open in an hour; the staff eat first. There are six of them, all young, at table; the men sit on one side, the women on the other. They take turns fetching food. They are raucous, happy with each other and the prospect of the evening, pals, copains. There are pitchers of wine. It took little time for us to recognize that they are staff, not customers; the disorderly abundance of the food, the way they disappear inside, the pace of the consumption — so that they eat more and more rapidly than those who pay — all this reveals intention. At the table next to ours a couple folds a map. They speak softly, in a language Î can't place. The man is tall, white-bearded, wearing sandals — sufficiently striking so that I remember having seen him some days earlier, on the path to the source of the Sorgues. Neither Cucuron nor Fontaine-de-Vaucluse are on the standard Cook's tour of Provence, and this couple therefore has its own itinerary, as do we. He too is drinking pastis. He raises his glass to me, smiles. I am gratified that he remembers us, as I do them: the momentary fellowship of strangers, for whom a twice-seen sight or face grows marginally less strange. We do not speak. He spreads the *Michelin* out on the table. His wife has a pencil; she traces the lines of their route.

The village square is dominated by a concrete pool. The pool is green, rectangular and large. We cannot gauge the water's depth, since it is opaque. The wind has driven clutter — a floating bottle of Evian, some plastic wrappers, the plane trees' shed bark — down to the side where we sit. Children fish from the low wall. It is hard to imagine that fish live within or would prove edible if caught, but the timeless pleasure of dropping a line into darkness, of waiting with your hand held out for signals sent on string — this pleasure engages them wholly. They huddle and wait.

"A watched pot never boils," I think, might just as well mean the reverse. The standard explication of the saying is "Don't supervise too much" or "Leave the procedure alone." But milk for coffee should not boil or pea soup bubble over; in these cases one *should* watch. So perhaps "A watched pot never boils" means, contrarily, "Pay attention." The boys at the rim of the *bassin* pay close attention, anyhow — though what they catch are leaves.

Two kilometers from Lourmarin, the Hotel de Guilles offers tennis and swimming. There is a stable nearby. Some patrons are *sportif* they arrive on bicycles or go rock-climbing at Buoux. Others loll by the pool, eating ice cream, reading the paper, daubing each other with oil. The pool is large, well tended, and the view of the Luberon expansive: fields of lavender, then scraggling fruit trees and melons, scree, cliff. Those who stay at the hotel use the facilities freely; residents of Lourmarin can sign on daily or monthly or annually to join the Club de Guilles.

It is an inviting prospect, and July is hot. The children love to swim. I hope to make an "arrangement," therefore, with the hotel manager; several days running I go to his office. He proves difficult to find. He is on vacation. His niece cannot help me, he will return next week. Meantime, we use the pool. We bring towels from the house. We tip the waiters lavishly and buy expensive drinks. Topless women smile at us, and their escorts scowl.

One afternoon a stocky man with a white shirt, shock of brown hair, and brown moustache appears. He leans forward when he walks, as if about to break into a run. He invites me to his office, smiling; he has just returned from Venice and inquires if I speak Italian, then says I am a sympathetic type. His desk is piled with photographs, with correspondence, stacks of bills; a blackboard above it lists vacancies in the hotel for the next three months. There are few. He rummages through paper and finds a plastic folder, listing prices of the pool per person or per family, by day or week or month. His posted charges are outlandish, so much so that I cannot believe he intends them; it would cost five hundred dollars for the family per week. He has no membership forms, no receipts; he repeats that I appear to be "un type sympa." He wants me to bribe him. I do.

As the weeks wear on, however, the staff's good will wears thin. He is the only man I've bribed, and his subordinates keep asking for our room key or address. There are two possibilities. Either he has told them of our thousand-franc agreement, and they want to get in on the action, or he has not told them, and they want to settle up. The chain of command is complex. Those who tend the pool do not also run the cafe; those who serve lunch on the patio do not collect the mattresses or chairs.

We're not gate-crashers, clearly, and we smile and pay for ice cream or drinks; we speak sufficient French and drive a decent car. We have children and look married and stay longer in the region than would people passing through. The manager is courteous, respectful; they dare not throw us out. But they wonder what we're doing (the mistral strong, the water cold, the septic system reeking from the week-long continual revelry of *le quatorze juillet*) and how polite they need be.

A clarity obtains in dealing with the French. There is nothing subtle or mysterious to commerce in the south; they do not decide to trust you or take umbrage unprovoked. Rather, the system is simple. Those you tip will make you welcome in the future; those you fail to will not fail to register the lack. But it must not be excessive or you're taken for a fool. The rational man measures cost. There is direct proportion here, a perfect equivalence of service offered for services purchased: a clear-eyed incremental responsiveness to cash.

It does not seem so simple elsewhere — in America, for instance, or the Far East. I have often failed to offer what had been expected, or tried to give a tip where nothing had been sought. The last week of our stay the wind is high. Leaves and berries blow into the pool. We leave before our welcome would have had to be refinanced; the manager assures me we will be welcome back.

ILLUSTRATIONS for Michigan Today by Fred Zinn

THE PORNOGRAPHER'S NEMESIS

An interview with the Michigan-bound feminist legal scholar Catharine A. MacKinnon

W omen who have filed successful lawsuits claiming sexual harassment in the workplace owe a lot to Catharine A. MacKinnon, a leading feminist legal theorist who will join the Law School faculty as a tenured professor in the fall of 1990.

MacKinnon, currently a visiting professor at Yale Law School, gave working women the legal ammunition to make such courtroom victories possible by pioneering a legal concept that sexual harassment is a form of discrimination arising from dominance of women by men.

"That notion," writes Cass R. Sunstein in the Harvard Law Review, "for which MacKinnon is given too little credit, seemed bizarre and radical to many when initially put forward. Remarkably, her position was accepted in 1986 by every member of the Supreme Court — with a majority opinion written by then Justice [William] Rehnquist [now chief justice]. This development must count as one of the more dramatic and rapid changes in legal and social understanding in recent years."

With feminist writer Andrea Dworkin, MacKinnon went on to write anti-pornography ordinances for the cities of Indianapolis and Minneapolis based on similar reasoning. Although the courts struck down the Indianapolis ordinance, and the mayor vetoed the Minneapolis ordinance twice, Dworkin and MacKinnon's theories of pornography — that it is central to the subordination of women because it eroticizes dominance — have been supported by anti-pornography groups, government commissions and legal scholars.

In her most recent book, Feminism Unmodified: Discourses on Life and Law (Harvard University Press, 1987), MacKinnon applies her feminist critique to traditional ideas about rape, pornography, privacy doctrine, women in athletics and images of women in the law. She recently talked to Peter Seidman of Michigan Today in her Yale Law School office.

Michigan Today: Your militance is something many people take note of. It's said you're not like most scholars, who are purported to have a dispassionate interest in their work and their subject. Do you feel that the emotion you bring to your work compromises your credibility?

Catharine MacKinnon: I've noticed other scholars' lack of passion, but I haven't noticed that they have no position. I don't think that the credibility problem has to do with emotion. I think that being a woman means that one has less credibility, and should you happen to care about anything you say, you are called emotional. Calling women emotional and denigrating their credibility on that basis is the oldest stereotype in the book.

There are reasons quite apart from the way I put what I say that lead to a desire not to take it seriously — for example, its content, which is experienced as threatening. Much of what I talk about isn't about experiences men have. Therefore they find it incredible. They just can't believe that the world would mean what I say the world means. Therefore they don't give me any credibility. But that is about what, in usual academic terms, having a contribution to make should be

all about — being able to see things in a way that other people don't. Instead, when you see things within existing terms, in a way that makes people comfortable, that's regarded as "a contribution." When you see things in a way that is not within existing terms, and your vision does not make people comfortable, you're regarded as incredible.

Also, when men have extreme emotional reactions to what you say, they say you are emotional.

MT: One of your main ideas is the primacy of the social over the biological in terms of defining gender differences. Do you consider biological differences between men and women entirely irrelevant?

CM: To gender inequality, yes, gender inequality being what I'm interested in addressing. I don't think, for example, that men rape women for biological reasons.

MT: What is the reason?

CM: In society masculinity is defined, among other things, in terms of one's ability to rape women. And perfectly good biologically male little boys are thus turned into rapists.

MT: Well, if biology is irrelevant to your argument, then why is it that women can't act like men and be the ones who dominate?

CM: They could.

MT: Why don't they?

CM: Because socially, men dominate women, and socially, everyone is taught that's the way it is. It is legitimate, socially, for men to forcibly subject women. So men do it and women have it done to them.

There have been extraordinary variations within societies in the degree to which women are subjected and variations in the excuses that societies give for doing it, usually called religion, or secular substitutes for religion, like sexuality. The justifications vary widely. It's been attributed to everything under the sun. It may well be that there were societies in which it was not the case. I don't know. Some people say there were. Some people say there have not been. What I do know is that most societies that we are aware of have exhibited some form of male dominance and female subordination.

There have always been attempts to make sure that when women oppose male supremacy, they

MACKINON

do not survive. When a woman is being battered, if she resists the battering, she is often killed. When women resist economic subordination, they're punished economically. When women resist the image or stereotype of what it is to be feminine, they're punished. When women organize together and say, we don't want this system, we want to change it, they're punished.

MT: How are they punished? CM: The standard forms of political persecution. By not being given a job, not being able to survive, not having your books published or anything you write taken seriously or given a forum; by having epithets shouted at you; being stigmatized in the ways that men are highly articulate in stigmatizing women; by being excluded from everything men control, which is nearly everything — every bit of power, legitimacy, money. Just to give you a few examples. And then there's having your life threatened.

MT: Are you speaking from personal

CM: Of course, and also the experience of women historically and worldwide. Women have been thrown in jail for trying to get the vote. Women have been evicted from their homes and shot at and jailed fighting for women's rights against pornographers, to keep them from exploiting women. It's hard to even begin to explain all the details.

MT: You speak of all of these attempts to punish women for asserting themselves against male supremacy, but when you write a book, it's reviewed favorably in major newspapers, law reviews write about it - yours is clearly a powerful voice. How does that fact fit with what you make sound like a systematic attempt to keep women down?

CM: You're asking: How can what I'm saying be right if I can survive it? If I can speak? If I can make a living?

The answer is that everything is arranged in an attempt to silence all of us who say what we're saying, including me. I'm saying that when you overcome a barrier, you've overcome a barrier. The barrier is still there. Many of the ideas I wrote in 1972 haven't been published until now. I have barely had a legitimate academic job in 12 years, and no job security. It's a lot worse for other women.

What you don't even imagine, can't imagine -I can barely imagine it — is what women might have to say if all this weren't the case, what women might be able to do, what women might have to contribute.

MT: Many men claim that when women demand equality, they are ignoring the difference between the sexes. They say men and women are not the same, and vive le difference.

CM: I don't agree that the issue of inequality is about sameness and difference. It's about dominance and subordination. Dominance and subordination make sameness and difference irrelevant, except to the extent that dominance is purported to be based upon difference.

What you have is a situation where there are supposedly two approaches to equality. One is treating likes alike and the other is treating unlikes unlike. Both are supposed to produce equality.

Treating likes alike I call the sameness approach; that is, when women are like men, they can be treated equal to them. Treating unlikes unlike — what I call the difference approach – means that when women are unlike men, sometimes women can be compensated for that. Through this, women are supposed to have our cake and eat it too. Having our cake meaning when we're like men, we're treated like men, and eating it too meaning when we're not like men, we get compensated for the ways we're not like

Men don't have to be the same as anybody to be entitled to get what they get just because they're men. And even though men are as different from

women as women are from men, men get advantaged, not disadvantaged. The issue of inequality is advantage and disadvantage, not sameness and difference.

MT: Wasn't that a major part of the argument you used successfully in court to define sexual harassment as a form of sexual discrimination?

CM: Yes. If you take the sameness and difference approach to sexual harassment, you may come to the conclusion that it's not a form of sex discrimination: Women are sexually different from men, so what difference does it make if they're treated differently? Within the existing approach, you have to add that women's sexuality can be exploited just like men's sexuality can be exploited, and if men's sexuality isn't being exploited and women's is, then you've got a same situation and a different treatment. Which is an easy argument to make and part of the way I constructed it. It is also an instance of the sexual subordination of women by men, which is part of the way gender inequality is lived out. So there is both a version of the existing argument and a newer argument.

MT: Did you make the same arguments in the case in which you contended that pornography is a form of sex discrimination?

CM: Similar. It has the same underpinnings.



There have been extraordinary variations within societies in the degree to which women are subjected and variations in the excuses that societies give for doing it, usually called religion, or secular substitutes for religion, like sexuality. The justifications vary widely. It's been attributed to everything under

MT: You were enormously successful in the sexual harassment case, but you've had more trouble achieving the same end with regard to pornography. Why?

CM: That's a good question, since pornography and sex harassment are similar in many ways. The social realities are the same, the excuses are the same, and the experience of pleasure from the abuse is the same. Their place in gender is the same, both pornography and sexual harassment are done almost entirely through words, and both are done almost entirely in private.

But in some ways, pornography is very different from sexual harassment. There is no industry that is making \$10 billion a year from sexual harassment the way there is from pornography, or which has spent the last 10 years systematically buying legitimacy both through the courts and with the media for sexual harassment the way there is for pornography.

Also, when you talk about making sexual harassment illegal, the people who do it think that it isn't something that they do. When you talk about making pornography illegal, and you define it the way we did — which is simply to describe what everyone who has used it, made it or seen it knows — they all realize that you're making illegal something that they do. So the opposition

MT: In other words, people don't know that they're harassing people sexually, so they didn't oppose a law against it?

CM: That's right, at least for many of them. They think they're engaged in ordinary, everyday, friendly, heterosexual/sexual initiation. It never dawns on them that this is done under conditions under which the woman is not in a position to turn them down or tell them to please disappear. They also don't confront the ways the availability of their power to do this advantages them, whether they use it or not.

MT: The definition in your model pornography ordinance has been criticized on the ground that it pertains only to material that is so hideous that it wouldn't sexually arouse anyone.

CM: That's an interesting criticism. By the studies the more hideous it gets the more arousing it gets. The reason *Playboy* is selling less well than it used to is that, as the studies show, the more men are exposed to pornography, the more violent they need it to be to produce sexual arousal. The violence is the arousal trigger. It's absurd to say these are so gruesome they're not turning anyone on. If that were true, they would not be being sold.

MT: Does your definition of pornography include publications like Playboy and Penthouse?

CM: Our definition cuts across the middle of Playboy and includes most of Penthouse and everything that the pornography industry does that is continuous from that.

MT: Is the domination of women the essential function of pornography?

CM: Its essential function for the pornographer is, in the words of one of them, "to make bank deposits." Its essential function for the consumer is to masturbate with the material, that is, to buy and possess the women in it, and experience his own sexuality over and against them. Both of these are, yes, the domination of women.

MT: If your definition holds — and if pornography is not protected by the First Amendment what would happen to the portions of the Bible that are misogynistic? Or what about the Marquis de Sade?

CM: Sade was a pornographer. Our ordinance would cover his pornography. The Bible is not pornography. It is not even sexually explicit by existing legal definitions.

MT: Let's take a work by the Marquis de Sade, say Justine, which is pretty graphic. Would a college professor who wanted to teach about French society be allowed to use it in his or her course?

CM: I would think currently there would be some question as to whether that would constitute sexual harassment. It would matter under sexual harassment rules how it was used. If it was forced on students, it would be actionable.



'Most women, in order to survive everyday life, believe themselves into exceptionality. I think that's a survival strategy for women. It's also a strategy that helps keep in place the system that's killing us.'

MT: Do you distinguish between pornography

CM: Anything that isn't covered by our definition of pornography can be anything that you or anyone else wants to call it.

MT: What do you mean?

CM: The anxiety of the pornography/erotica question is: What can we still have? The anxiety in that question is: If everything that abuses women and gets men hard is pornography, then what's left that can be sexually arousing? And the anxiety in that question is: If you don't abuse women, maybe you don't get hard.

It's not up to me to figure out what materials will work sexually but will not abuse women. If it turns out that sexual arousal without abusing women is impossible — that there is no erotica that's not my problem. Men getting hard is not my problem. Women getting abused is my problem.

I suspect that a lot of people have sexual experiences that aren't predicated on abuse. What is less clear to me is whether there are sexual experiences that are not predicated on inequality.

Whether sex would be as sexy if the sexes were equal is a key question. Under current definitions of sexuality, it wouldn't be. But the fact that people have such difficulty imagining eroticism without power and inequality as sexual in it suggests that the criticism we are making is true.

People are constantly trying to get me to tell them that what they do now and what they have now is equality. We do not have equality now. Look at the rape rate. Look at the rate of child sexual abuse. Everyone wants to believe we have equality. We don't have it. Believing in it all that hard because we so much want to have it has not made it happen. It's more like waiting for Godot.

MT: Let's say we take away any form of abuse, we take away the element of sexual inequality. We don't know what's underneath that, do we?

CM: I think it would not be recognizable in terms of the ways we now experience sex.

MT: Why wouldn't we recognize it as something like two dogs going at it in the middle of the street?

CM: That image is a social image you've been given about what "nature" is — that there is a relationship between two equal human beings and two animals who have never lived in human society. Society has told you that that is what the nature under your sexuality looks like.

It's important to be serious about the inequalities in society because people attribute to nature things that are actually social, between people. This is always selectively done to propagate a certain social arrangement. Suppose society has gone and we have sex like black widow spiders do: He has sex with her, she bites his head off. You chose dogs. The use of both of these are social constructs that arise under conditions of inequality.

MT: You argue that under the prevailing social order men are aroused by their power over women and women by their powerlessness. If that is true, why not stick with what we have? It may not be perfect but at least —

CM: You can choose inequality — you have it in sexual relationships and you have it elsewhere or you can choose equality — you have it elsewhere but you also have it there. It is not a symmetrical situation. Part of the reason that women — to the extent that women do — get pleasure out of subordination has to do with their experiences of abuse very early on. Men may learn to get pleasure from dominance in part from similar experiences, but with men's options.

Women learn to sexualize powerlessness through experiencing their sexuality under conditions of powerlessness. About 38 percent of all young girls are sexually molested before they reach the age of majority. That means their experience of their body's being accessed and aroused, as well as the experience of being loved and approved, is an experience of violation. It's an experience of top-down sex. It would be unusual if

that did not have a continuing effect, in the sense that that is then a situation that a woman eroticizes, and resists eroticizing, throughout her life.

What does that mean about her relationships in the larger world, about her possibilities for equality? What does that mean for her sexuality throughout the rest of her life? What is the relationship between those two things?

The point is, sexuality is not socially isolated from the realities of gender inequality, but a dynamic of it.



'Men think that what women are doing in relation to them is based on freedom and mutuality and love. White slave owners, a great many of them, were of the belief — it was very congenial to them to believe this — that the Black people living with them, particularly the house staff, were doing what they were doing out of freedom and mutuality and love.

MT: Can you envision women making pornography for women?

CM: There are some women pornographers who allege that's what they're doing. Big-name real pornographers, not bought-out set-up women pornographers, have long tried to appeal to women in the market. It would double their money if they could figure out how to sell men as things to women as sex. They've failed over and over again. No matter what the picture shows, it doesn't work sexually for women because women have been socialized to be a thing to be sexually used, not to be a person using a sexual thing.

As soon as you make men into things to be sold as sex, the virtually universal perception of it is that the men are gay. To make a man into a sexual object to be sexually consumed is to feminize him and to make him into something to be used, to be dominated.

MT: So it doesn't really make sense to ask you: If women could come up with a pornography that was for women, would you also ban that? You're

CM: First of all, we're not banning things. We're making them actionable so that if people can prove the materials do the harm, they can get an injunction against it. A ban is a criminal idea that says the day that it exists, it's a crime. As far as the ordinance is concerned, anybody, male or female, who can show they are discriminated against based on sex in the way the ordinance makes actionable can bring claims against the pornographers, whether the pornographers are women or men.

MT: You say that the harm of pornography is so pervasive that "it cannot be sufficiently isolated to be perceived." Wouldn't that let you draw the line anywhere?

CM: No. I didn't say you couldn't perceive it. I said that socially pornography hasn't been perceptible as harmful because it's so much the way everyday life is. The question is, does that exonerate the pornography or indict everyday life? It has been used to exonerate the pornography. I'm indicting everyday life. That doesn't mean that everything about everyday life becomes legally

actionable. It just means you then draw a line around these specific extreme abuses and make those actionable on the understanding that now they've been made visible in a way that they haven't been able to be before.

MT: So that is the major battle as you see it

now, pornography?

CM: Well no, that's where some of us have chosen to join this battle, but it is going on at every front. Women are getting obliterated. In many areas you get the feeling that the battle has been fought a long time ago and the booty is just being plundered. Women are the booty. The question is, when are people going to call on the war?

MT: How do you mobilize your troops, so to speak, when they are living with their enemy? In the civil rights movement, the Blacks and the white segregationists were not sleeping together. There were not the same type of intimate relations between them as there are between men and women.

CM: That's not quite right. White men were raping Black women at a great rate and still are. It's also true that Black people and white people in the South lived together intimately. Men think that what women are doing in relation to them is based on freedom and mutuality and love. White slave owners, a great many of them, were of the belief — it was very congenial to them to believe this — that the Black people living with them, particularly the house staff, were doing what they were doing out of freedom and mutuality and love. There often was a lot of love mutuality there. What there wasn't was a lot of freedom.

MT: Do you on some level see love as an impediment to achieving feminist goals?

CM: In some ways. The question you're raising is the profound one about how one mobilizes an oppressed community, particularly one that is oppressed in the very specific skin-against-skin way that women are, which is not really like anything else. I think that what women are conditioned socially to experience as love is a form of annihilation of self and dissolution of boundaries. The ideology of it is that it is supposed to be a unification and consummation and oneness. But what it is about is that he, the man in society at least, is a person and the woman is a thing. At the same time, human values that are mobilized in that concept are things that people value highly. To me it is important to look at ways that equality would transform that experience and that reality.

MT: When you speak of this relationship, are you talking about every woman in this country?

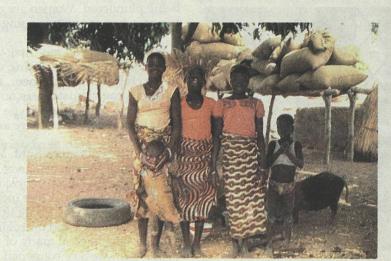
CM: I'm talking about the meaning of what it is to be female in society, and it is something that is experienced to a greater or lesser degree by different women. Some women are far more oppressed by it than others. There are all sorts of ways of buying out of it piece by piece. You never totally buy out of it. Skin privilege is very helpful. Class privilege is very helpful. Heterosexual privilege can be helpful. But at the same time, heterosexual privilege is a funny form of privilege. It's the privilege that gets you battered, it's the privilege that gets you marital rape, it's the privilege that gets you prostitution. Funny kind of privilege, that.

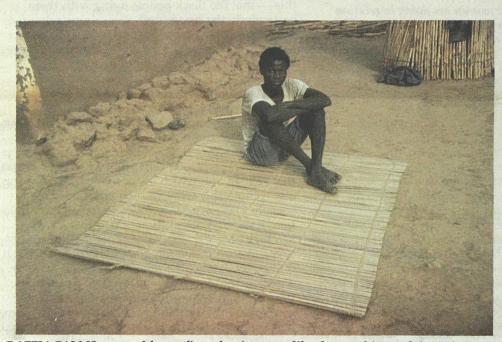
Most women, in order to survive everyday life, believe themselves into exceptionality. They believe that they are an exception to this structure. They believe that what is true for most women, which they concede, is not true for them. I think that's a survival strategy for women. It's also a strategy that helps keep in place the system that's

killing us.

ECOLOGY WITH A HUMAN FACE

Making sure people are included in the conservationists' equation





RAFFIA PALMS are used for roofing, sleeping mats like the one this youth is sitting on, poles, cord and many other items. Park restrictions bar villagers from access to palm forests. The government wants us to sleep on the ground, a villager complained to Hough.



VILLAGERS carry sacks of peanuts home from the fields. Peanuts are the one cash crop of Tanougou, in Benin, West Africa.







By Kate Kellogg

"The greatest conflict isn't between good and evil, but between good and good."

hat is how Patrick West, professor of natural resources, characterizes the growing international conflict between governments, environmentalists and rural residents of developing countries over the designation and use of protected land areas such as national parks.

The local residents of many such countries find themselves in a Catch-22 situation: Like the rest of the world, they ultimately may benefit from laws that protect land and preserve animal and fish species. But they alone suffer the loss of the means of subsistence when such restrictions bar them access to natural resources that provide their food, shelter and livelihood.

West points to the predicament of certain people of Africa who need their savannahs for grazing domestic animals far more than they need to protect the wild animals in these grasslands that threaten their crops. Yet overgrazing can deplete vegetation and turn fragile grassland

One of a new breed of interdisciplinary environmentalists whose research combines natural resources with sociology, West cautions against

sacrificing human rights on the altar of environmental protection. An example of an environmental "horror story" is that of the Ik tribe of

"The Ik had been part of an ecosystem of the Kidepo Valley for thousands of years," West says, "and had had very little contact with the outside world. When Ugandan officials decided to put a national park in the valley, they based their regulations on the definition of a park by the International Union for Conservation of Nature a private environmental protection organization which says a national park should have no human inhabitation. The Iks were displaced from their habitat and forced to turn from a hunter-gatherer society to dry-land farmers."

Factions of the tribe who had formerly been buffered by space and ritual were forced to live closer together resulting in severe inter-tribal conflict, West continues. Their inexperience as farmers and relocation to a drought area caused suffering that "nearly decimated their culture and society, and drove them to high rates of homicide, suicide and prostitution."

West cites the Ik's misfortune in his forthcoming book, Resident Populations and National Parks in Developing Nations, as one of the more extreme cases of mismanaged environmental protection. By contrast, the Anapurna National Park in Nepal, he says, is a project that attempts to merge the values of environmental protection with the needs of the local people for sustainable

"The park management is involving the Sherpa people of Nepal in structuring tourism around the park area," West explains. "The Sherpa mountaineers have been encouraged to operate small 'mom and pop' touring outfits that rely on their unique mountaineering skills. No large-scale touring company has their kind of knowledge of the terrain, so competition isn't a problem and the local people are benefiting as much from the project as are outsiders."

Yet the increased tourism that often accompanies the establishment of a protected area does not guarantee benefits for local people.

Continued on p. 10

As Tanougou goes, so goes much of the world

magine that a known public enemy is stealing your community blind while government I officials forbid you from doing anything to capture the criminal. That's the predicament in which the 440 villagers of Tanougou, Benin, in West Africa, find themselves.

The village children often skip school to guard their families' crops and livestock against baboons, warthogs, giant rats and an occasional lion. But all they can do is chase the animals away. Marauding bands of baboons sometimes menace village women while they are cultivating the shallow soil and tending the fields of sorghum, millet, maize, yams and peanuts — the village's one cash crop. Yet it's unlawful to shoot the baboons.

The villagers are prohibited from trapping or exterminating the invaders who plunder their harvests and attack their domestic animals because Tanougou lies next to a national park and hunting reserve that harbors the animals. The pests have only to retreat to their lairs in the governmentprotected parklands to avoid their pursuers. The villagers face arrest even if they lay traps for or kill the wild animals on village property.

Established in 1954 by the "Benin" government (the country was still a French colony then and gained independence in 1960), the Pendjari national park and hunting reserve protects all animals and vegetation within its boundaries from hunting, cultivation, grazing and woodgathering. However, it is only in the last few

years that these regulations have been enforced. "It's no wonder that some local people perceive the government as giving higher priority to wild animals than to people," says John Hough, researcher in the U-M School of Natural Resources. "It's all very well to preach the virtues of conservation — but to people whose children are hungry and whose crops are being destroyed by the very animals that conservation is protecting?

"The local residents cannot even kill and eat these animals illegally, as people do in other areas, because they live so near the park staff in charge

of enforcing no-hunting policies." In earlier times, the people of this region used croplands for four to six years, then left them

Continued on p. 10

Those were the days!

▲ This scene from a post card would be unlikely to occur in Tanougou today, Hough says. About 15 years ago Benin park officials forbade the clan that held the crocodile sacred to sacrifice chickens near the reptiles' habitat, a marsh within the park.

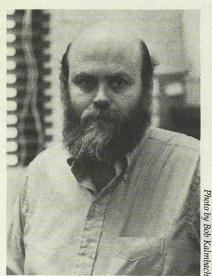
Since then, the crocodiles have vanished from the area altogether, apparently because local land degradation and soil erosion dried up the stream that supplied the marsh.

'But the Tanougou people,' Hough says, 'see the crocodiles' disappearance as personal punishment for discontinuing the ceremonial sacrifices. Some told me that several villagers had died because the sacred crocodiles no longer protected them.

The dispute highlights a conflict between the world views of conservationists and local area residents that is typical of similar clashes in many other parts of the world.

CONFLICT

Continued from p. 8



West

West has found that "park developers must look closely at the conditions under which local rural development projects are structured lest those with the most power — such as the large ranch-owners of Mexico's Mapmi Reserve — receive the benefits at the cost of peasants who live on the margins of protected areas."

In the Pacific Ocean off Ecuador, the Galapagos Islands National Park has not helped operators of small boats that carry tourists to and from the islands despite the park's boost to the area's tourist industry. To control the flow of tourists to the park, government officials and scientists direct tourists to the big ferry boat firms, resulting in a monopoly that leaves the smaller outfits out in the cold.

These and other cases have convinced West that the concept of the "biosphere reserve" — a core area in which resource exploitation is forbidden, surrounded by a periphery open to moderate exploitation by select groups — is not as neat a package as it once appeared.

"Too many such preservation attempts that are supposed to benefit the local economy result in aiding the most powerful constituencies rather than the needy," he says.

Every continent now holds protected areas, which include national parks and biosphere reserves, and the total planetary surface contained within them exceeds 1,650,000 square miles, which is roughly twice the size of Alaska.

Millions of people live in and around these areas, and West is pushing for more humane treatment of them by national and local governments and by the international conservation organizations that now tend to bar people from all but recreational use of parks.

"When the conservation organizations, such as the International Union for the Conservation of Nature or the World Wildlife Fund, too strictly define biosphere reserves as free of human inhabitation, the militaristic bureaucracies that sometimes run these areas take that word to the nth degree," West adds. "It is up to environmental scholars and the international organizations to help governments become more sensitive to the needs of local people near these reserves."

West's book, funded by the Natural Resource Sociology Research Lab and the Wildland Management Center of the School of Natural Resources, will soon be published by the University of Arizona Press. In it, he describes the new efforts to balance conservation of world ecosystems against "the survival needs of indigenous peoples, both traditional tribal societies and modernizing peasant populations in rural poverty."

In the Western hemisphere, the La Planada nature reserve in southwest Colombia proves, according to West, that careful planning can achieve the needed balance. In 1982, the Foundation for Higher Education (FES) a Colombian non-governmental organization, purchased the reserve with the assistance of the World Wildlife Fund-U.S.

"The FES not only saved the area from

a proposed logging operation but created a management plan that directly involves human settlements in adjacent areas," West says.

Although the use of natural resources within the wildlands was curtailed, some of the Cuayquier Indians whose homelands lie within the park were allowed to stay on their plots. A tree nursery was established for the production of seedlings of fast-growing species used for firewood, and some of the local wood-cutters were hired by the reserve as workmen and guards.

"Other people-oriented reserve activities have included the training of Cuayquier Indians in community leadership, a diagnosis of regional health problems and the training of local teachers in a new school program," West says, and traditional cooperative work sessions called *mingas* have been carried out with the Cuayquier communities to improve trains and bridges.

Not only should park planners assess the impact of protected areas on human communities as well as animal or plant life, West says, they should "always include residents of the areas in the planning process and never assume they understand or agree with park objectives."

West hopes his study of the protected area in northern Benin in West Africa, which is the subject of the accompanying story, will serve as a model for how conservation objectives can be blended with the needs of park managers and those of the communities that had managed these areas for centuries.

Continued from p. 9



Hough

fallow for 10. The fallow fields provided grazing land and the newly cleared areas yielded firewood.

Today, in their continuous search for fertile soil, the villagers must eat into the fallow. "One woman," Hough says, "told me, 'It is discouraging to help my husband cultivate a larger and larger area each year, and see less and less result. I am always worrying about having enough to eat.' "

The water catchment area for the stream supplying the village shows evidence of serious degradation resulting from expanding cultivation, poor land husbandry practices and overgrazing, Hough says, "and the villagers living in the catchment complain that their traditional dry-season water sources are going dry."

In addition to the material problems there are spiritual ones. The villagers' religion holds that certain rites must be performed on the soil where their ancestors' spirits reside to ensure continuing harvests and good health. "But Tanougou residents cannot continue such practices," Hough says, "because many of their original ceremonial sites have been incorporated into the hunting zone."

So far in Benin, disagreements over the protected area have generated only bitterness, some rule-breaking and embargoes on food and lodging for park officials, Hough notes, but in Malawi, in southern Africa, a guard was killed in a particularly violent manifestation of this conflict.

Yet the need for protected areas remains.
"The Pendjari Park is the largest area of protected woodland savannah and associated wildlife remaining in West Africa," Hough says, and it also forms a "green buffer" against the rapidly

encroaching Sahara Desert to the north.

Some natural resources specialists propose the remedy of "ecodevelopment" — locally sustainable development based on the interdependency of ecological and human systems. They believe only this approach can truly integrate conservation with economic development in developing countries.

Hough, his U-M co-researcher, Prof. Patrick West (see accompanying story), and other experts emphasize, however, that ecodevelopment requires an alteration in the role of national parks and other protected areas.

"The current national park concept discourages local people's participation," Hough says, "even though, by the very nature of being a conservation area, a park has great local significance. The existing idea that it should be managed solely for the benefit of 'the nation and the world' creates an enormous barrier against good relations with the local people."

Although there is a language barrier between the French-speaking park staff recruited from another region of the country and the Gourmantch'-speaking people of Tanougou, the worst communication problem Hough observed during his research in Benin was the government's tendency to deliver "mixed messages" that portray nature as hostile — yet too valuable to be touched.

"The park officials try to discourage the men from poaching in the protected area by warning their wives that these animals could kill or injure their husbands and therefore should be avoided. The park staff reinforces this idea by carrying guns. Naturally, the people then wonder, 'If the animals are dangerous and of no use to us, then what is the purpose of the conservation area?' "

In defiance of the regulations, some of the villagers poach animals and perform religious rituals within the protected area. Hough quotes a local proverb that says, "If you tear my shirt, you should expect me to tear yours."

The villagers also set brush fires in or near the area, killing trees that become easily stolen firewood. The fires are also believed to deter wild animals, such as snakes, from approaching the village.

If for no other reason than these acts of civil disobedience, Hough says, "the government may see the alternatives I offer as the only pragmatic solution to current problems."

Other poachers roam the park, too: heavily armed and often politically well-connected poachers from other areas who know how to make the local authorities look the other way while they kill big game animals or animals prized for commercial reasons.

The park staff tends to avoid these poachers while they chase and prosecute village poachers who usually kill only abundant small animals for food.

Hough is convinced that the only way to stop the villagers' illegal activities is for the park to cooperate with the local people against the commercial poachers. But cooperation, he adds, will require government officials to clarify to the villagers the policies and regulations governing access to parklands and to apply conservation laws fairly and consistently.

Some officials who welcomed him in the role of "objective observer," Hough notes, see his suggestions as more of a hindrance than a help. Furthermore, the highly centralized government may see local involvement in management of the protected area as a "threat to national sovereignty and power."

Most important, Hough says, the villagers must have a stake in, or sense of ownership of, the protected area. He suggests this could be done by establishing locally controlled cooperative businesses to manage resources in some parts of the protected area.

Such cooperatives might provide guides to professional hunters, manage the palm trees, prepare skins and trophies, fish the Pendjari River and

oversee distribution of meat.

"For all of these approaches, technical training, advice and monitoring by park staff would be required," Hough says, "but management needs to be structured so that local people control incentives to conserve protected area resources for their own benefit."

Hough's and West's study of the Benin protected area was funded by the U-M Research Partnership program. The Faculte des Sciences Agronomiques of the National University of Benin also collaborated on the project, as did the Benin Ministry of Forestry.

SKULL-DIGGERY

Horrifying as it may be to some Western Europeans, the tale of the pate puts Neanderthals in their family tree

By Rhett Stuart

For years anthropologists have argued that all traces of the Neanderthals vanished from Earth about 35,000 years ago, their legacy now nothing more than a label thrust on those prone to brutish incompetence. But from now on you'd better think twice before accusing someone of cave man-like bumbling, according to C. Loring Brace, professor of anthropology, especially if your ancestors hail from Western Europe.

"The fact is, the West European Neanderthals are today's West Europeans," Brace says with a sly smile, looking over the tops of his glasses as he leans back in his chair only a few feet away from walls of boxes containing thousands of bones and teeth unearthed in Michigan and around the world. "In every respect, the shape of the modern West European skull is closer to the shape of the classic Neanderthal cranium than to that of any other modern group in other parts of the world."

This isn't the first time Brace has played head games with fellow anthropologists. Last year, he published a paper in the *American Journal of Anthropology* proclaiming that the first samurai, the often-mythologized warrior class of feudal Japan, were not Japanese. His study of the cranial and facial features of more than 1,100 specimens from several Asian groups showed the revered symbol of power and bravery descended from the Ainu, an aboriginal people who were recruited by Japanese warlords about 900 years ago to help fend off other Ainu.

Brace's revelation was controversial in Japan, where the Ainu are widely considered to be primitive and beneath respect. In fact, a Japanese colleague who assisted Brace decided to remove his name from the published version of the study.

With his Neanderthal proposition, however, Brace is bucking not only tradition, but a theory

accepted as a given in his field.

The term Neanderthal was derived from the Neander valley in Germany, where the major discovery of this human type was made in 1856. Ever since the earliest analyses most physical anthropologists have maintained that the Neanderthal branch of the human evolutionary tree was outnumbered and subsequently chopped off by its more advanced Cro-Magnon neighbors who slowly infiltrated from the east.

In a reaction similar to the Japanese-samurai-Ainu paradigm, West Europeans have identified the Cro-Magnon as their progenitors and categorized the Neanderthal as subhuman.

Brace, who also is curator of the physical anthropology division of the U-M Museum of Anthropology, argues that the Neanderthals evolved into the Cro-Magnon, and thus are also progenitors of today's Western Europeans.

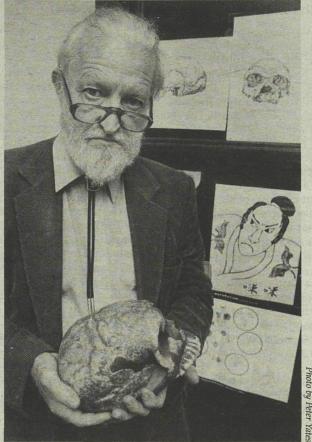
"For modern West Europeans to appear as they do, they would have had to have had ancestors with a similar cranial shape," Brace explains. "And right there in Western Europe 50,000 years ago, that same cranial shape is to be found among the classic Neanderthals, and it continues to be found in the Upper Paleolithic age of 30,000 to 20,000 years ago."

The similarities between Neanderthals and Europeans that are obvious to Brace are obscured by cartoonish portrayals that serve as the our image of the cave man.

"We must start by dispensing with this image of the hairy, slouching beast carrying a club and wearing a leopard skin loin cloth," he says. "Despite minor differences in the pelvis, there is no evidence to suggest that the Neanderthals' posture was any less erect than ours today. And from the neck down, the only other difference between Neanderthals and modern humans is the indication of generally greater ruggedness in Neanderthal joints and muscles.

"In fact," Brace continues, "the Neanderthals probably had much more effective weapons and clothing than given credit for, and there is reason to believe that they were at least as intelligent as modern humans."

But for the most conclusive evidence, the noted



MYTHOLOGY of ancestry is important to many peoples. Some Western Europeans are uneasy to hear Professor Brace connect their craniums with the Neanderthal skull in his hand. Japanese were upset to learn that the samurai like Miyamoto in the sketch at right adapted the tradition from their island's 'primitive' Ainu aborigines.

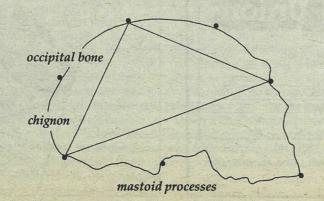
anthropologist might tell skeptics, "It's all in your head" — primarily in dental, facial and cranial features.

Brace has compared 24 points of reference on more than 1,000 skulls from all of the world's major regions, and he has found that the modern West European form is noticably different from such other modern forms as African, Amerindian, Chinese or Australian Aborigines, but bears a striking similarity to the Neanderthal form.

One key similarity (see illustration) is at the rear of the Neanderthal and West European skulls. The greatest height is relatively low in proportion to length and width, while the maximum width is located halfway up the sides of the skull. These traits combine to form a shape *en bombe*, or melonlike, when the skull is viewed from behind.

Viewed from the rear, the mastoid processes at the base of the skull behind the ear "slope inwards and in fact are relatively small compared with the mastoid processes of other living populations," Brace says. "The side view of the skulls shows the occiput — the lower part of the back of the skull — projecting outward in a form referred to as a chignon."

NEANDERTHAL SKULL



But to declare effectively that the modern West European evolved from Neanderthals, it is important to place both within the same evolutionary framework, Brace says. "If Neanderthal did evolve into modern form, its structurally and temporally intermediate forms should be apparent."

intermediate forms should be apparent."

Enter the "Neanderthaloid," a population bearing strong Neanderthal features but deviating toward modern form in other ways.

Discovered in the 1930s in a cave on the slopes of Mount Carmel in Israel, the Neanderthaloid's teeth and face are smaller than the Neanderthal's.

"The forehead and sides of the cranial vault are more vertical, producing a distinct chin — formerly a hallmark of modern human form," Brace says. "Reductions in the robustness of the ribs, long bones and other aspects of the post-cranial skeleton also show modifications toward modern form." Experts said the find represented a hybrid of peoples of full Neanderthal and modern forms.

Brace says that within the last 20 years, however, more advanced dating methods have shown that a full-scale Neanderthal skeleton found in a cave near Mount Carmel is about 60,000 years old. The Mount Carmel skeletons are about 35,000 years old, placing the Mount Carmel population intermediate in time and in form between the Neanderthal and modern ends of the spectrum. That, Brace says, "eliminates all need for hybridization theories and the difficulties that come with explaining them."

Despite a recent test that placed the Mount Carmel site at about 90,000 years old, Brace stands behind his theory. He notes that such an early date for the artifacts "has already created problems for the archaeologists who are trying to interpret their meaning, and has resulted in some doubt being cast on the new evaluation."

More recently, Brace reports, digs at Vindija, Yugoslavia, have produced fragmentary but identifiable remains with the same degree of modern and Neanderthal traits, confirming that a similar transition was occurring simultaneously in Southeastern Europe.

Another site, in Hortus, France, has yielded Neanderthals showing "clear-cut reductions in dental metrics and other aspects of morphology. At 35,000 to 39,000 years ago, they stand between the classic Neanderthal and the modern levels of robustness."

Other isolated sites have produced more finds indicating intermediate forms, and Neanderthaloid traits also have been found in Upper Paleolithic populations, he notes. The first such Upper Paleolithic group to be discovered was Cro-Magnon, which followed Neanderthaloid. Eventually, Brace predicts, Neanderthal and Neanderthaloid ancestors will be discovered for all of the world's modern human forms.

Shaking his head — his silver ponytail waving behind him — and scrunching his face in disbelief Brace says: "In spite of more than a hundred years of speculating about the meaning of these morphological characteristics, whether separately or in combination, there has yet to be a plausible interpretation proposed. As a result, the descendants of the classic Neanderthals are today alive and well, some of them working as anthropologists in London at the British Museum yet continuing to deny the obvious evidence of their heritage.

"It is all quite ironic," he adds, "now that the reading public has finally gotten to the point where it is willing to accept the theory of evolution, that it is the anthropologists who have tended to become uneasy at the possibility of discovering a Neanderthal skeleton in the sapiens closet."

But the evidence is there, he declares. "For those of us of Western European ancestry contemplating the possible fate of the classic Neanderthals, we might well sum it up with the phrase, 'We have met their descendants, and they are us."

LETTERS

Remembering Prof. Bachmann

MICHIGAN Today usually comes forth with one or more stimulating articles. The February issue was no exception, and two therein are exceptional: Nobel Laureate Joseph Brodsky's Winter Commencement Address and your story of The Transformation of Benjamin Carson. The latter virtually qualifies for required reading by every public school student. It's pertinence in the present-day scene of perceived hopelessness on the part of so many, of escape by others via violence, drugs or the fast buck, cries out for recognition. Parents, as well, need to let the message to them sink in.

This year marks the 50th anniversary of another achievement of particular significance to the University to the world of organic chemistry. It was in 1939 that Prof. Werner Bachmann, postdoctoral fellow Wayne Cole and doctoral candidate Alfred Wilds announced in the *Journal of the American Chemical Society* the first successful total synthesis of a steroidal estrogenic hormone, equilenin. This trophy had eluded a number of the best synthesists in other universities and pharmaceutical research laboratories.

Bachmann and his graduate students were on the brink of announcing another triumph, the total synthesis of estrone, when his diversion to aiding the defense effort in WW II — in which he played another important role — unfortunately intervened. His sudden death at too early an age cost

Michigan and the world a most dedicated and able teacher and organic chemist.

Reynold E. Holmen '37 M.S., '49 Ph.D. White Bear Lake, Minnesota

Michigan in Fiction

I can steer you to two items you missed — one major and one minor (in terms of setting in Ann Arbor), and possibly to a source of more items.

To deal with the minor item first: Emma Lathen's *Murder Makes the Wheels Go Round* is, like all their books, clever and amusing as well as being an interesting puzzle. (I say "their" because "Emma Lathen" is a collaboration.) It's set mostly at a fictitious auto company in Detroit, but a couple of significant scenes take place here — notably an all-day seminar in the Rackham Building. The Ann Arbor interest is quite incidental to the U-M's being near Detroit.

To turn to a source which you may be able to track down: not too long after my wife and I moved to Ann Arbor we read an issue of the *Ann Arbor Observer* that included one or more articles dealing with Ann Arbor in fiction.

We read what we could of the books they listed, and one sticks out in my memory. It was called, I believe, Partly Cloudy and Cooler (by Elizabeth Uhr, Harcourt Brace, 1968) — Ed.).
The article described it as a misanthropic and totally humorless view of life among the grad students at the U-M. Misanthropic, yes — I'd add

depressing and pointless — but filled with black humor.

In Nevil Shute's *Trustee From the Tool-room* (William Morrow & Company, 1960), a character needs some information, and he turns to a correspondent, "a professor of Medieval Literature at the University of Michigan, just outside Detroit." (The British view puts us in our place, eh?; a later reference is to "Ann Arbor near Detroit.")

Dave Lovelace Ann Arbor

'Keep that band marching'

I HAVE just finished reading the article by Virginia Hayes that appeared in your April issue. I was motivated to write this letter by my whole-hearted agreement with those statements appearing in the article and attributed to Don Shepherd and Dr. Revelli. Certainly the whole article reflected their positive statements.

Having attended the University during the tenure of Dr. Revelli, Class of '55/57' (Korean Conflict gap), I was on campus before women were a part of the band. Every time I see the most recent band in concert or parade, I watch to see if the quality has lessened — almost with fear. It hasn't.

Adding my comments to those mentioned above, I believe that the members of every U-M Marching Band have had those qualities I admire in a "Michigan Man/Woman" or any man or woman: good health, vigor, discipline, talent, ambition, dedication and, of course, dexterity. The band is therefore a constant reminder of high quality of all of the Michigan students, band members or not.

If Don Shepherd is heading up a drive to raise additional funds for the

band, have him contact me and I will spearhead a drive in the San Diego area to help him. I want to keep that band marching as an example of all Michigan Men and Women.

Terry Hughes '57 San Diego

Women in engineering

YOUR ARTICLE A Tale Of Two Engineers in April brought back memories of many happy days I had as a woman engineering student at Michigan.

I was a little dismayed with Ms. [Irma] Wyman's negative statements about the faculty ("the faculty seemed to regard women as a nuisance"). Most of my professors were not only very supportive in class, they were also encouraging and helpful with my reaching my career goals. Professors Dushnik and Rainville are two that come quickly to mind.

I'm sure most of the women engineers of that era have fond remembrances of Prof. R.V. Churchill, our faculty advisor. He was very generous with his time and attention.

Admittedly, however, there was bias against women in the admissions department of the College. A quota system was in effect. Enrollment was limited — I believe it was less than 10 female students per year. We were told the reason for this was that the school was overcrowded with GI's returning from World War II. Supposedly the dropout rate for women was high, and admitting more women who might not graduate would take a place away from a serious GI who would. I hope the University will never again have to resort to an admissions policy based on gender quotas.

> Florence Tsilkoff Baum '48 BSE Phoenix, Arizona

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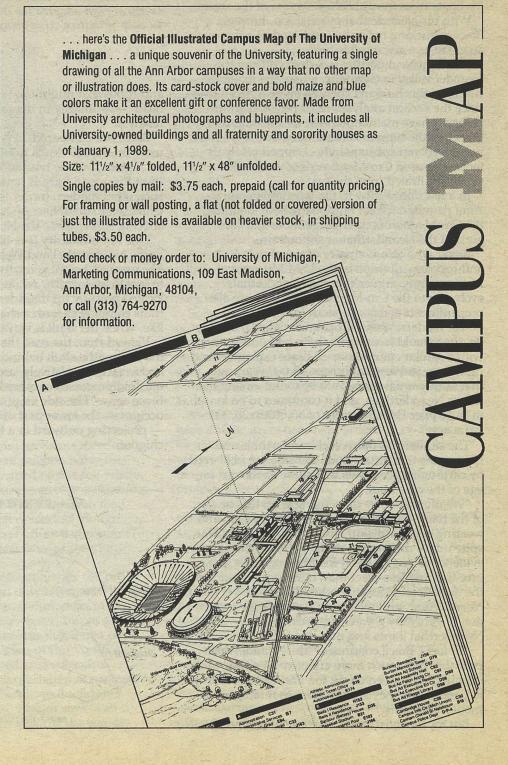
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Sadye H. Power Program will aid families under stress

When a very young child suffers a severe emotional shock — the loss of a parent, divorce, a serious illness in the family — psychological support for the child and for his or her family often is necessary. Thanks to a program recently established by the Power Foundation, such help soon will be readily available.

The Sadye Harwick Power Fund, with its Program for Children and Families Under Stress, has been established by the foundation to provide children and their families focused short-term help to reduce psychological shock induced by trauma. It will be operated through the University's Department of Psychology and will be a part of its Center for the Child and the Family.

"This Program is unique, not only in the way that it focuses on the very young child, who is frequently underemphasized," said Prof. Albert C. Cain, chairman of the Department of Psychology, "but also in the way that it fuses and integrates a clinical service with the training of graduate students. It makes important psychological services available to the very young child well before the age most children are seen in such settings."

Throughout her career as a clinical psychologist, Sadye Harwick Power '23, '25 M.A., has dedicated herself



FAMILY MEMBERS gathered around Sadye Harwick Power at a reception April 24 in honor of the U-M program that bears her name. Standing (left to right) are her husband, Eugene B. Power, a former U-M Regent; her grandson Ethan Power; and her son and current Regent Philip H. Power.

to the interests of children and their families. As a colleague of her former professor of clinical psychiatry at the Medical School, Theophile M. Raphael, Power responded to the request of the University Health Service in 1929 by establishing the campus Mental Hygiene Clinic.

The Clinic became the first individual counseling service for students

at Michigan and the first such service in the country. Power worked at the Clinic full and part time, and has continued to follow the evolution of the important service.

To honor Power's interests in teaching and research as well as her commitment to children and their families, the Power Foundation also has established two annual Sadye Power Fellowships for graduate students. These Fellows will work with staff and faculty at the Center for the Child and the Family to plan and provide psychological care.

The first two Fellows, Lyzsa Kieschnick and Daniel Greenberg, have not only "demonstrated outstanding competence" as graduate students in clinical psychology, according to the chair of that program, Prof. Eric A. Bermann, but they are "deeply committed to working with such families as careers."

"What is promising about this fellowship," Bermann says, "is that we can follow the careers of these students to see their impact on their communities."

Through the U-M Center for the Child and the Family, the Sadye Harwick Power Program will serve the needs of stressed children and their families through preventive, diagnostic, therapeutic and consultative guidance. Families may choose at any time to call on the expertise of the Program Fellows and the faculty and staff of the Center.

"In addition," Bermann says,
"the Program will emphasize public
education and will reach out to the
community in every way possible."

Dean's Merit Scholarship Program is growing

Math Dept. and financial aid attract outstanding student

Christopher M. Skinner, a high school senior from Little Rock, Arkansas, will be the fourth Victor and Frances Ginsberg Dean's Merit Scholar

Skinner won the 48th annual Westinghouse Science Talent Search — one of the most prestigious science awards for the nation's high school students — with a project in number theory. He heads a class of 428 at Hall High School

Skinner first heard about Michigan and its Department of Mathematics from Piotr Blass '69 M.A., '77 Ph.D., who was professor of mathematics at the University of Arkansas at Little Rock when he coached Skinner's junior high school math team.

During a 1987 visit to the U-M campus at the invitation of Maxwell O. Reade, chairman of the Scholarship Committee of the College of Literature, Science, and the Arts, Skinner and Blass met two U-M number theorists, Profs. Donald J. Lewis, chairman of the Department of Mathematics, and Hugh L. Montgomery.



Skinner

Lewis and Montgomery encouraged Skinner to finish a theoretical paper he had begun on Diophantine equations. Skinner's paper, a study of solutions to equations in which the solutions are whole numbers, is to be published by *The Pacific Journal of Mathematics*. His Westinghouse project, on exponential Diophantine equations, will be the basis of a second paper.

Lewis says Skinner's first paper is

"master's-thesis caliber" and his Westinghouse project "is much deeper. It is as good as a lot of dissertations. In research, Chris is functioning at the Ph.D.-candidate level."

Lewis, associate editor of *The Journal* of *Number Theory*, adds that Skinner's second paper has been recommended for publication in that journal.

Skinner, who began to do independent reading in mathematics in junior high school, says, "I was looking for a good math department, and Michigan has one of the best in number theory. I also was impressed by the attention I got, and the financial offer was a fairly big part of my decision."

The Dean's Merit Scholarship Program is still relatively new — Skinner

The Dean's Merit Scholarship Program is still relatively new — Skinner will be a member of the third class of scholars this fall. But the Program quickly has become successful in attracting donors and outstanding students such as Skinner.

The Program's goal is to create an identifiable and prestigious body of scholars, each of whom receives a substantial grant for four years of study. The Program has helped the University bridge the gap in recruiting exceptional students who are also being sought by private universities with large scholarship endowments.

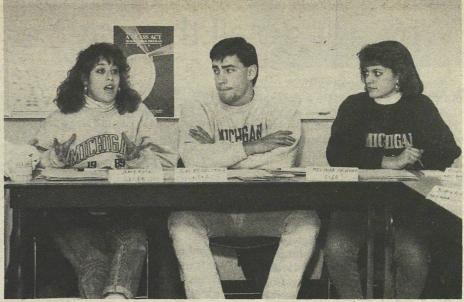
Bruce Cook '50 B.B.A., '51 M.B.A., of Owosso, Michigan, is on the LS&A Visiting Committee and has long been active in the College's scholarship and recruitment programs.

"We on the Committee felt the University should do more with recruiting," Cook says, "but it is hard to recruit without scholarships. They go hand in hand."

The Cook Family Foundation, established and principally funded by his father, Donald O. Cook '24, supported the first scholarship. The first freshman class of Dean's Merit Scholars in 1987 had eight scholars; the second in 1988 had 13. The College would like to have 50 such scholarships, each funded by \$120,000 endowments, by 1990.

More than 1,350 U-M Seniors Pledge

'In Line for '89'



SENIOR PLEDGE co-chairs (1-r) Rose, Bridenstine and Griffith

In Michigan, the arrival of spring is not dictated by the calendar. It was cold this year on the first day of spring; the crocuses were barely visible through a light dusting of snow.

Despite the chill, students crossing the Diag on March 21 were greeted by what is rapidly becoming a dependable harbinger of spring — a 30-foothigh balloon with red, orange and yellow stripes sporting a banner that read "A Class Act."

The annual Senior Pledge Program, a student-coordinated fund-raising drive targeted at graduating seniors on the Ann Arbor, Dearborn and Flint campuses began March 21 and by April 30, 1,350 seniors had pledged \$55,000 toward a \$60,000 goal, which the Class of '89 expects to exceed in the near future.

Featuring the theme, "A Class Act: In Line for '89," the program was cochaired by Thomas J. Bridenstine, a psychology and communications major from Farmington Hills, Michigan; Melinda S. Griffith, an economics and psychology major from Geneseo, Illinois; and Amy Rose, an art history major from New York City.

Bridenstine says, "The more students become aware of this program, and of their ability to give something back to Michigan for the education they've received, the easier it is to reach our goal."

Griffith agrees, that "it's good for students to start thinking about giving to the University now."

Rose comments that "I feel that present students have an obligation to help the students who follow us."

The program, now in its third year, is aimed at raising the awareness among students of the need for annual fund support.

These funds provide student loans and scholarships, library materials, laboratory and computer equipment, and support for special programs and innovative research. U-M biochemist brings red cells back from the dead

No Tired Blood

By Sally Pobojewski

A few gray hairs, some wrinkles, bifocals — they're all visible signs that we're not getting any younger. To scientists like David Aminoff, they bear the unpoetic label, "biological markers

But the biological marker that most interests Aminoff can't be seen with the human eye. He studies microscopic biochemical changes that take place in red blood cells as they age in the body during their 120-day lifespan. Although still preliminary, his work may someday help scientists regulate the life cycle of the red blood cell.

"As the red cell ages, it becomes smaller and its density increases," says Aminoff, a professor of biological chemistry in the Medical School and a research scientist in the U-M's Institute of Gerontology. "Many biological activities decrease, such as enzyme activity and hormonal response. Changes also occur in the texture and chemical composition of red blood cells and their surfaces."

According to Aminoff, scientists used to believe these old red blood cells lost their elasticity and "got stuck" in tiny capillaries as they passed through the spleen. Once stuck in the spleen, red blood cells were easy prey for roving macrophages — scavenger cells that engulf and digest cellular waste.

But Aminoff and a handful of other biochemists have recent experimental evidence that supports a different theory. Aminoff has discovered that red blood cells lose about 12 percent of the sialic acid molecules on their outer surface as they near the end of their four-month lifespan. The absence of sialic acid on the red cell's surface exposes another molecule — a sugar called galactose.

Aminoff believes these galactose molecules give hungry macrophages a docking site where they can attach and hold onto old red blood cells long enough to surround and digest them.

To test his theory that galactose is the biochemical signal for red cell



Aminoff

destruction, Aminoff used enzymes to remove galactose from the membranes of artificially aged cells. Once returned to circulation, the treated cells remained unrecognized by macrophages even after their normal 120-day lifespan.

"If the galactose is artificially removed, or covered up again by the addition of sialic acid," Aminoff says, "we have in effect rejuvenated the red cell. I call it the Dorian Gray phenomenon."

Red blood cells contain a molecule called hemoglobin that binds with oxygen in the lungs and carries it through the bloodstream to every cell in the body. Aminoff plans to test the "rejuvenated" red blood cells to determine whether they transport oxygen as effectively as younger cells. If they do, he says, "I can see a real possibility of being able to rejuvenate old red cells and retransfuse those cells into the human bloodstream."

A possible means of retransfusion, he says, "would be to take off the offending galactose recognition site; a second way would be to remask it with sialic acid," so the macrophage would lose its docking site.

If rejuvenated red blood cells can carry oxygen effectively, Aminoff thinks the technique might double the lifespan of transfused blood and improve treatment of certain types of anemias where red cells are removed from circulation prematurely.

The question MaliVai Washington is asking himself in class and on court

'Why not go all the way?'

By Ami Walsh

Every great American tennis player of the past few decades from Arthur Ashe to Jimmy Connors and John McEnroe, played in college for at least one year. Michigan sophomore MaliVai Washington has enjoyed two college campaigns and would not mind two more.

The eyes of tennis have been on Washington since he scored startling victories over the best young players in men's tennis to win the Volvo Collegiate Tennis Championships at the University of Georgia last October.

Along with a silver bowl, the title earned the 19-year-old No. 1 Wolverine's singles player another No. 1 ranking — at the top of men's collegiate tennis, where he has remained ever since.

On May 24, Washington returned to the hard courts at Georgia's Henry Field Stadium for the 105th NCAA Men's Tennis Individual Championships, but he was upset in the first round, while senior All-American Dan Goldberg made it to the quarters. Only two Wolverines have won the college title, Barry McKay in 1957 and Mike Leach in 1982

Washington entered the NCAAs with a 23-4 record this year. His two collegiate Grand Slams, including the Rolex Singles Championship in Minneapolis last February along with the Volvo title, earned him the tournament's top seed.

To college coaches and players around the country, Washington's sudden rise to the top is especially impressive in light of his position last year. Playing behind Dan Goldberg '89 and Ed Nagel '88, he was couched in relative anonymity at No. 3 singles. By the end of the season, he was

ranked No. 30 in the country.

To Washington, however, his recent achievements are small steps toward a much larger goal. "On my scale of success, I don't think it's very much," said the Swartz Creek, Michigan, resident. "I look at all the other tennis players in the world who have done so much more than I. I still have a long way to get to where I want

to get."
One place Washington wants to get is into professional tennis. But the question that concerns Michigan coach Brian Eisner in particular is: When?

"I haven't made any decision," Washington said a week before the NCAA tourney. "If I think I'm ready after the double AA's, then I'll do it. If I think I'm ready after I get my degree, then so be it."

Regardless of his decision, Washington said, he expects his college degree to bring him as much financial security as his tennis career. "Who knows," he says, "tomorrow I might break my leg or get in a car accident and never be able to play tennis again."

Nevertheless, remaining in school must be difficult as Washington watches some of his peers experience early success on the pro tour. Michael Chang, for example, a rival Washington often beat in the juniors, turned pro in 1987, immediately after high school. Today, Chang is ranked 21st in the world, with career earnings above \$180,000.

Last summer, Washington played nearly a dozen professional tournaments as one of nine players selected for the U.S. National Team. By August, he was 347 on the world ranking computer and had collected \$9,123 in prize money, which he could not accept because of his amateur status.



Washington

The experience helped him nonetheless, for when he returned to Ann Arbor last September, his game was sharper and his confidence stronger than ever.

The son of Christine and William Washington, MaliVai began taking lessons from his father at the age of 5. The family was living in New York then, and William, now a consultant for General Motors in Warren and former football and basketball standout at Jackson State University in Mississippi, had only recently taught himself the game by watching pros play and reading "anything that was printed on tennis."

When the Washingtons moved to Michigan, William began taking MaliVai and his sister Michaela to the nearest public courts every day to practice. By the time the youngsters entered high school, the family worked-out twice a day. William continued to coach and travel with his children during their junior careers.

"His dad has done all the primary coaching with him," Coach Eisner says. "They've pulled together as a

family and made him one of the top 10 ranked juniors since he was 10."

Michaela also became one of the best in the nation, and at age 19 was ranked 81st in the world before a wrist injury ended her competitive career. MaliVai's other siblings, a 14-year-old brother, Mashiska, and 12-year-old sister, Mashona, are nationally ranked juniors.

In his early teens Washington was small and wore down opponents with a consistent baseline game. He was a scrambler who won using patience, not power. But today he's a sturdy 5-11. At 180 pounds, his game is a mixture of physical power and mental poise:

"He can't just lie back and be defensive anymore," says his father. "He's shifted his game. He's very agile with a good serve and forehand and a consistent backhand. He's tremendously athletic. Now he can take it to them."

With a strong serve-and-volley game to complement his groundstrokes, Washington was a noticeable threat in the first tournament of this collegiate season, the Longhorn Invitational held last October at the University of Texas. As an unseeded player, he posted a series of upsets before losing in the finals.

"I didn't even play extremely well," Washington recalled. "But I got to the finals, so I said, 'Why not go all the

Ami Walsh is a free-lance writer from Ann Arbor.

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A SUMMER SYLLABUS

Summer reading may be America's great, unspoken national pastime. Here are some selections of a few U-M book aficionados.



Rebecca J. Scott **Associate Professor of History**

One of the most exciting intellectual events at Michigan this year was the Tanner Lecture on Human Values given by Toni Morrison, titled "Unspeakable Things Unspoken: The Afro-American Presence in American Literature." The lecture has been published in the Winter 1989 Michigan Quarterly Review, and several of my summer readings are inspired by that text.

First, I will be reading Morrison's novel Beloved. It explores fictionally the terrain of society after slavery, which is my own area of research interest. Second, I will be reading the controversial work by Martin Bernal, Black Athena: The Afroasiatic Roots of Classical Civilization (Rutgers University Press). Morrison drew on this study in her critique of the narrow contemporary contruction of what constitutes "Western culture." Some classicists dismiss the work; other students of ancient history find it provocative and valuable. I look forward to discussing it with two friends, one a scholar of ancient history, the other a specialist on slavery, to come to our own provisional judgment.

I will also be re-reading Inga Clendinnen's Ambivalent Conquests (Cambridge University Press), which explores the interaction of Spaniards and Maya in 16th-century Yucatan. Clendinnen draws a skillful portrait of Diego de Landa, the Spanish missionary who befriended Mayan leaders but later carried out a ferociously violent campaign against "idolatry," burning the sacred texts of the Maya and torturing those suspected of "blasphemy." Clendinnen writes with grace and deep insight; hers is a book one recommends not only for what it says about colonial Latin America, but also about cultural interaction and the costs of intolerance.



Luis O. Gomez C. O. Hucker Professor of Buddhist **Studies**

I plan to reread the plays of the 20th-century Spanish poet Garcia Lorca (a return trip to my high school days). I also intend to catch up on my reading of Latin American contemporary literature with a first reading of the short fiction of Garcia Marquez collected in Los funerales de la mama grande and in La increible y triste historia de la candida Erendira y de su abuela desalmada, and of Isabel Allende's La casa de los espritus.

In my category of new areas of interest is a perusal of S.W. Jackson's recent Melancholia and Depression, a history of Western theories about depression and its treatment. In this same category I intend to read an older work, *The Meaning of Despair*, an anthology of psychoanalytic papers edited by W. Gaylin, and Social Origins of Distress and Disease, a recent study on contemporary Chinese views of stress and melancholia by Harvard psychiatrist-anthropologist Arthur

Coming closer to areas I have been working for many years, I am planning to reread Sudhir Kakar's Shamans, Mystics and Doctors, a psychological study of healing practices in traditional India, and to read for the first time his study of the self in India, Identity and Adulthood. To bridge this and the following topic is a second close reading of M. Eliade's study of Indian "body disciplines" and spirituality, Yoga: Immortality and Freedom.

Even closer to my present project will be M. Jacoby's psychological study of the myth of paradise, The Longing for Paradise, and A.B. Giamatti's study of Western notions of paradise, The Earthly Paradise and the Renaissance



Edna Amir Coffin Arthur Thurnau Professor of Hebrew Language and Literature

Top on my list this summer is a Russian novel that I just started reading, Children of the Arbat by Anatoly Rybakov, translated by Harold Shukman. This novel, set in the Arbat, the intellectual and artistic center of Moscow, portrays life at the beginning of Stalin's reign of terror. It was suppressed in the Soviet Union for 20 years and has been hailed as "stunning, unforgettable . . . the literary event of our times."

I also plan to delve into the nonfictional realm. I will make a valiant attempt to read and understand Abraham Pais' biography of Einstein, Subtle is the Lord: The Science and Life of Albert Einstein. I have always admired Einstein as a man and found his ideas and reflections moving and profound. He is a caring human being with a sense of history, whose religious view of the universe transcends traditional organized religions. He has the intellect of a genius and the sense of wonderment of a child. I will concentrate on reading about his life, rather than about his scientific contributions, as Pais gets much too technical for me.

Plans for teaching affect my summer reading list as well. I offered a new course on Israeli fiction and film this year, and would like to add dramatic works from the Israeli theater to the readings in this course. I plan to read several recent Israeli plays and choose some of them to include in my course. I will concentrate on the plays of my favorite Israeli playwright, Yehoshua Sobol, whose play Ghetto was translated into English and will open in New York this fall. Sobol often chooses a distinct historical setting for his dramas and explores human experience, individual and group survival, in the face of adversity.

Last but not least on my list is a report issued by the Carnegie Foundation for the Advancement of Teaching. The report, written by Ernest L. Boyer, was published in 1987 by Harper and Row and has been on my reading list for some time. The title speaks for itself: College, the Undergraduate Experience in America. I hope it does not find its way to my summer reading list for 1990.



Raymond Grew Professor of History Editor, Comparative Studies in **Society and History**

Summer has special meaning for academics, a time to do what you meant to be doing all year, to catch up in your field but also broaden horizons, and even to read for sheer pleasure. Fortunately, these distinctions quickly blur. The last category, however, is more fun to talk about than the scholarly journals and monographs and books for review, stimulating as those often are.

So, among the latter, I think first of some novels. I want to read Gabriel Garcia Marquez' Love in the Time of Cholera, a new novel that promises many of the qualities remarkable in so much of Latin American writing cosmopolitanism focused on the local, skeptical nostalgia and psychological portraits wrapped in social panorama. Without confidence of finishing it, I intend to tackle Umberto Eco's Foucault's Pendulum, and I hope this summer to fulfill an old promise to read each year one novel by Balzac.

Biographies rarely satisfy me as an historian, but I will read Herbert Lottman's Flaubert for its attractive compilation of recent scholarship on a figure who has become ever more problematic, and Peter Gay's Freud as a skillful believer's defense of a thinker who now seems far less the giant of modern thought than he did a generation ago. The collection of essays by Victor Kiernan, History, Classes & Nation-States, treats topics that concern me professionally, but Kiernan is interesting in his own right. Although his most recent book, The Duel in European History, struck me as disappointing (despite or rather because of the wideranging possibilities inherent in the topic), he is extraordinarily knowledgeable. Something of a loner among a group of English historians who became decisively Marxist in the 1930's, he wrestles the challenges of that

position with good sense, rare candor and surprising pessimism.

For variety, Ivar Ekeland's Mathematics and the Unexpected has risen high on the night stand, a fascinating reflection on what mathematicians do. It will be followed by Romanticism in National Context, a collection of essays by a distinguished group of scholars (edited by Roy Porter and Mikulas Teich) that forms a bridge to the precarious, taller stacks of the books I really must read. In good summers, though, some of the best reading will be found by accident, on a library shelf next to the title I was looking for, on somebody else's table or — best of all — at a book stall in some foreign city.

U-M students to tour in new comedy troupe



'OUR TYPE of humor is intelligent slapstick, a bit of parody, subtlety and a distinct hatred for the cheap laugh, says Just Kidding's Mary Beth Barber '91 (standing, 2d right).

A funny bunch of U-M students and graduates has formed a new comedy troupe that will begin touring the nation this fall as "the alternative to stand-up comedy."

We want to spread our name around and see how successful we are," says Rob Marks '89 of Potomac, Maryland, co-producer of the troupe called Just Kidding Production Company. "Then we hope to land a spot in a theater and work out of it."

Just Kidding's sketches are suitable and enjoyable to family as well as collegiate audiences, emphasizes Mary Beth Barber '91 of Sacramento, California, who is the company's publicist and an actress.

The troupe, which is believed to be the nation's only comedy company springing from a single university, thinks U-M alumni audiences will find the show particularly entertaining. Interested persons may contact co-producer Marks at (313) 663-1460 or co-producer Jason Allington '90 of Livonia, Michigan at (313) 663-1460.

Other members of Just Kidding are Steve Doppelt '89, Wilmette, Illinois; H. Anthony Lehv '89, Columbus, Ohio; Matt C. Schlein '89, Harrison, New York; Sara Mathison '92, Battle Creek, Michigan; Kristin Sobditch '91, Canton, Michigan; Craig Neuman, '89, St. Louis; Jon Glaser '90, Southfield, Michigan; Kevin Hughes '90, Holmdel, New Jersey; and Ilana Trachtman '92, Rockville, Maryland.

Michigan Today

A VIGNETTE

Andrea likes to draw. Each morning we gather flowers, arrange them in a vase and scrupulously she copies what she sees. I work outside, on the tile patio, and she joins me there in the second wicker chair. She has a drawing pad and watercolors and Caran d'Ache crayons and pencils in ranked rows; she places the vase on the table and outlines it lightly in pencil, then fills in the shape.

'Why don't you draw the step?' I say. 'Those steps

there, by the table.'

She shakes her head.

'Why don't you make it blue?'

'It isn't.'

'It could be.'

'Not this step, Daddy. It's orange.'

'If you made it blue it would look that way to anyone who saw the picture.'

'They'd be wrong,' she says.

'Don't be so certain, darling. How do you know what that painter was seeing — the one we looked at yesterday — when he painted castles. Maybe he was dreaming them.'

'He wasn't.'

'Maybe he dreamed them so clearly that all these years later we see what he saw the day he shut his eves.'

'This step is orange,' she says.

From 'A Sentimental Journey' by Nicholas Delbanco. (See page one.)



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