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Drawing from his Education
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Getting a Line on Evolution
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BY BARBARA CLOUD

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Though UNLV alumnus Ron Husband has a great time as a Disney animator, he wouldn't want us to think his profession is kid stuff. There's a whole lot more to animating Disney films than you might think, he says.

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Bennett Gift to Fund Professional Development Building

UNLV has received a $2.2 million donation from William Bennett, owner of the Sahara Hotel and Casino, to build a professional development building adjacent to the planned Paradise Elementary School on the university campus, according to President Carol C. Harter.

“Thanks to Mr. Bennett’s generosity, we will join the professional development center will be located on 8.3 acres on the north-west portion of the campus, according to Harter, who said the school will be moving to the campus in 1998 as part of a unique three-way agreement between McCarran International Airport, the Clark County School District, and UNLV.

UNLV College of Education President Carol C. Harter.

Thanks to Bennett’s gift, the professional development building and school will be enhanced by state-of-the-art computer and audiovisual equipment. According to John Amend, UNLV associate vice president for administration, the professional development building will be approximately 8,000 square feet and include a seminar room, computer lab, classroom and office space, and a control room for high-tech equipment.

The new Paradise Elementary School will be about 60,000 square feet and will be based on one of the standard elementary school designs created by Domingo Cambero Co. for the school district.

The school is expected to open in August 1998.

Harter To Serve on NCAA Board, Call on Educational Exchange

UNLV President Carol C. Harter was recently elected to two different boards — the NCAA Division I Board of Directors and the Board of Directors of the Council on International Educational Exchange.

Harter, one of 15 university chief executive officers and the only woman with full voting privileges on the NCAA board, which governs college athletics. She will represent the Western Athletic Conference, which UNLV joined in 1996.

At the WAC, representative to the NCAA board, Harter spearheaded an effort to change the system being used to select football teams to participate in bowl games.

“UNLV has received a $2.2 million donation from William Bennett, owner of the Sahara Hotel and Casino, to build a professional development building adjacent to the planned Paradise Elementary School on the university campus, according to President Carol C. Harter. The school for at-risk elementary school children and the professional development center will be located on 8.3 acres on the north-west portion of the campus, according to Harter, who said the school will be moving to the campus in 1998 as part of a unique three-way agreement between McCarran International Airport, the Clark County School District, and UNLV.

“Thanks to Mr. Bennett’s generosity, we will join the professional development building and the new Paradise Elementary School in a complex that will likely become a model for such programs,” Harter said. “It is pioneering programs like this — built on collaboration and benefiting the entire community — that are enabling UNLV to become a premier urban university. We are most grateful to Bill Bennett for making this possible.”

Under the agreement, McCarran International Airport is buying from the school district the property on the south side of Tropicana Avenue at Swenson Street where Paradise Elementary School currently is located. UNLV will provide land for the construction of a new school, and the Clark County School District will build the school, using funds from the sale of the existing property.

The new elementary school will be a professional practice school for educating at-risk students, training current teachers, and developing future teachers.

Kay Carl, the school district’s associate superintendent for elementary education, said this project will allow the district — in concert with faculty in UNLV’s College of Education — to better serve this special group of students while learning new methods of teaching at-risk students.

Thanks to Bennett’s gift, the professional development building and school will be enhanced by state-of-the-art computer and audiovisual equipment. According to John Amend, UNLV associate vice president for administration, the professional development building will be approximately 8,000 square feet and include a seminar room, computer lab, classroom and office space, and a control room for high-tech equipment.

The new Paradise Elementary School will be about 60,000 square feet and will be based on one of the standard elementary school designs created by Domingo Cambero Corp. for the school district. The school is expected to open in August 1998.

Outstanding Alumnus, Silver State Award Recipients Named

Regent Shelley Berkley has been named this year’s Outstanding Alumnus and former UNLV President Kenny Guinn has been chosen as the recipient of the Silver State Award, the UNLV Alumni Association has announced. This Outstanding Alumnus Award is given each year to a UNLV alumnus who has exhibited leadership, service, and dedication to the university, the Alumni Association, and the community.

Berkley has been a steadfast supporter of UNLV, having served as a member of the UNLV Alumni Association’s Board of Directors and its legal committee. She has been a donor to both the association’s scholarship fund and to the fund to build the Richard Tam Alumni Center. Berkley also served as student body president at UNLV and as voluntary legal counsel to UNLV’s student government.

She has been an active member of many civic organizations in Southern Nevada, including the Jewish Federation of Las Vegas, the Democratic Women’s Club of Clark County, and the Allied Arts Council.

The Silver State Award is presented each year to a non-alumnus who has made outstanding contributions to the state, the university, and the Alumni Association.

Guinn, the former superintendent of the Clark County School District, served as interim UNLV president during 1994-95 and as chair of the UNLV Foundation Board of Trustees during 1993-94.

Guinn was also chairman of the board and president of both Southwest Gas Corp. and PrLMerit Bank and has been an active member of numerous civic organizations, including the Nevada Development Authority, the Las Vegas Chamber of Commerce, and the United Way of Southern Nevada.

Both Guinn and Berkley were honored at this year’s Homecoming reception and were introduced during halftime at the Homecoming game.

UNLV Receives Law School Gifts

The proposed UNLV law school has the solid support and a pledge of $5 million from William S. Boyd, chairman and CEO of Boyd Gaming Corp., UNLV President Carol C. Harter announced recently.

Boyd announced additional pledges of support for the law school of some $2 million, bringing the total of private pledges for the school to about $7 million. These pledges came from Sunbelt Broadcasting Co. Channel 3 and James E. Rogers, president and chief executive officer; the Mandell family; Michael Gaughan, chairman of the board and CEO, Ocean Resort Casino; John D. (Jackie) Gaughan, president, El Cortez Hotel & Casino; Warren Nelson, a member of Boyd Gaming’s board of directors; Sam and Pat Lionetti; and Boyd Gaming, represented by William R. (Willie) Boyd.

William S. Boyd has been a member of the UNLV Foundation Board of Trustees since 1983. He received the Distinguished Nevadan Award from the Board of Regents in 1985 and the Honorary Doctor of Laws degree from UNLV in 1986. He, his family, and Boyd Gaming have given UNLV more than $3 million to support a wide variety of academic and athletic programs.

Boyd and Kenny Guinn, UNLV Foundation board member and long-time supporter of higher education, were instrumental in securing the additional gifts for the law school.

Current planning calls for the law school to enroll its first class in 1998 and eventually to have a student body in excess of 400. The school would seek provisional and full accreditation at the earliest opportunity, assuring all graduates of being able to sit for the Nevada Bar exam.

The school would specialize in issues of local and regional importance, such as gaming, mining, water, and environmental law.

Last summer the Board of Regents endorsed a detailed implementation plan and directed the chancellor to include the law school in the UCSN 1997-99 budget request to the Legislature.
College of Urban Affairs Named for Greenspun Family

The university's new College of Urban Affairs has been named for the Greenspun family in recognition of their recent gift of $1.7 million and their earlier gifts, pledges, and in-kind donations that bring the family's total support of UNLV programs to $5 million, President Carol C. Harter announced recently.

The Greenspun College of Urban Affairs, which was created during the university's recent academic reorganization, contains the Hank Greenspun School of Communication, named for the late founder and publisher of the Las Vegas Sun, the School of Social Work, and the departments of counseling, criminal justice, environmental studies, and leisure studies.

UNLV mechanical engineering professor Brendan O'Toole has been named the 1996 Nevada Professor of the Year by the Carnegie Foundation for the Advancement of Teaching.

O'Toole, who joined the UNLV faculty in 1992, has received four other teaching awards, including the Alice G. and Faye Spanos Teaching Award from UNLV and the Ralph R. Teeter Educational Award from the Society of Automotive Engineers.

He has taught nine different undergraduate and graduate courses in the field of engineering and authored some 20 scholarly publications, many on the subject of applications for composite materials.

O'Toole has also served as a faculty advisor to teams of students who have won regional and national engineering design competitions.

O'Toole also try to provide students with the general education they need to become engineers, and to motivate my students to ask questions because we all learn at a different pace," he wrote.

"We are very grateful to the Greenspun family for their ongoing support of our programs," Harter said.

When our new Greenspun College of Urban Affairs was formed during the reorganization of our academic units last summer, we grouped together programs that would contribute to UNLV's institutional goal of becoming a premier urban university by addressing the needs of the urban area in which we are located. By supporting this new college, the Greenspuns are helping UNLV fulfill its mission of meeting the educational, work force, and research needs of Southern Nevada and beyond.

Initial proceeds from the new book will be used to fund student scholarships and to hire Greenspun assistant professors in the college.

Harter also announced that biogeography professor Bob Kissman, chair of the department of leisure studies and a member of the UNLV faculty since 1992, will serve as interim dean of the new college while a national search is conducted for a permanent dean.

Barbara Greenspun, publisher of the Sun and wife of the late Hank Greenspun, said, "Hank Greenspun committed his life to the betterment of a growing Las Vegas community. That is why my family created the Hank Greenspun School of Communication, to continue his dream. Today, we are fortunate to be able to further his goal of a well-educated community by creating the Greenspun College of Urban Affairs."

Brendan O'Toole Named 1996 Nevada Professor of the Year

Two Longtime Members of the University Faculty Die

A. Wilber Stevens

Retired English professor and poet A. Wilber Stevens died in September after a long illness. He was 75.

Stevens, who joined the UNLV faculty in 1973, was also an editor, a drama and music critic, an actor, and a scholar.

He held teaching posts at a dozen colleges and universities during a career that spanned five decades. He taught at the University of Washington, Muhlenberg University, Robert College, and Prescott College, in addition to serving as a Fulbright Professor of English and American Literature at the University of Mandalay in Burma, the University of Chulalongkon in Thailand, and the University of Brazil in Rio de Janeiro. Stevens authored more than 100 published poems, more than 15 articles, and eight book-length works. He also wrote hundreds of theater, music, and book reviews.

He was widely recognized as editor and publisher of Testament, a literary magazine, and as a theater and music critic for the Las Vegas Sun and the Las Vegas Review-Journal.

He held a bachelor's degree from Brown University and master's degrees from both the University of London and the University of Washington, where he went on to obtain a doctorate in 1957.

Roosevelt Fitzgerald

Longtime member of the UNLV anthropological department Roosevelt Fitzgerald died in October following a long illness. He was 55.

Fitzgerald, who was born in Natchez, Miss., April 14, 1941, received his bachelor's degree from Jackson State University in 1963 and his master's degree from the University of Notre Dame in 1968.

In 1971 he came to Las Vegas and to UNLV, where he became known as a research assistant center of the history of the African-American experience in Las Vegas. He directed the university's ethnic studies program from 1971 to 1996.

In addition to his academic writing, Fitzgerald wrote a series of historical columns for the Sentinel-Review newspaper in Las Vegas.

A popular teacher and major force in the development of UNLV's ethnic studies program, Fitzgerald was also a sought-after speaker at community events.

UNLV Professors in Documentaries

UNLV English professor Joseph McCullough and history professor Hal Rothman recently appeared as experts in two different documentaries that aired nationally on the A&E Network.

McCullough appeared in November on the A&E Network's popular show, Biography, talking about American humorist Mark Twain.

"I was flattered that the people at Biography chose me as one of the two Twin experts they wanted to interview for the show," said McCullough, who chairs UNLV's English department.

McCullough, along with Howard Baethold of Butler University, authored The Bible According to Mark Twain: Writings on Heaven, Eden, and the Flood, which was published by the University of Georgia Press in 1995.

UNLV history professor Hal Rothman appeared in December in a documentary about the history of Las Vegas.

The documentary, titled Las Vegas, had two parts: Las Vegas: Gamble in the Desert and Las Vegas: House of Cards.

Rothman, who has been a member of the UNLV faculty for five years, was interviewed extensively for the show.

Among the topics he discussed were the general history of Las Vegas, social issues, the construction of Hoover Dam, the rise of the gaming industry, and the entrance of corporations into gaming.

Rothman is currently working on two books about Las Vegas.
**Olympian Challenges**

Although the 1996 Summer Olympic Games might be a distant memory for most of us, three women from UNLV will recall those days last summer with great clarity for the rest of their lives.

BY LAURIE FRUTH

They worked 10-hour days in sticky, intense heat. They fought their way through snarling crowds of camera toting tourists. They struggled to overcome the fear instilled by a senseless bombing. They gave heart and soul to jobs they knew would disappear after just a few short weeks. And they wouldn’t have missed it for the world.

It was, after all, the 1996 Summer Olympic Games.

Several individuals from UNLV participated in the Games in a variety of capacities. UNLV Magazine interviewed three of them — alumna and former student athlete Lori Harrigan, academic adviser Vaune Kadlubek, and head volleyball coach Deitre Collins — to find out about their experiences there.

Though each had different responsibilities during the Games, they came away from their time there sharing a certain awe of the experience. And each had a different story to tell.

**Lori Harrigan**

One of the U.S. champions was softball player Lori Harrigan, who brought home the ultimate prize — a gold medal. But for this two-time All-American softball pitcher, simply competing in the Games was more than she had dared to dream.

She had already reaped many rewards from her athletic talent, including a full athletic scholarship to UNLV in 1988, national recognition in the 1990 and 1991 College World Series, and wide acclaim as a member of the National Women’s Softball Team. But her Olympic aspirations didn’t take hold until 1991 when the Olympic Organizing Committee decided to include women’s softball as a medal event.

The decision heralded the start of an arduous four-year tryout period for Harrigan and the 19 other women who would ultimately comprise the U.S. Women’s Softball Team.

“The selection committee followed us all four years, keeping a book on everything we did. If I had a bad day or if my attitude wasn’t good one day, all that went down in their book. It was really stressful. After I made the team, most of the stress was gone.”

Normally an active person, Harrigan curtailed all athletic activities except softball during the tryout period to minimize the possibility of injury. Each year she tried out for and was selected to play on the National Team, which she believes strongly enhanced her chances of her going to the Olympics.

“If you didn’t make the National Team, you had to find a way to work yourself back into the loop. It wasn’t impossible, but it was more difficult,” Harrigan says.

Once the Olympic team had been assembled, preparations for the Games began in earnest. Harrigan and her teammates traveled to Columbus, Ga., where they lived for four months prior to the Games.

“We needed to get adjusted to the heat and the humidity in Georgia,” Harrigan explains. “It was tough being away for so long. My employer [Rod Yanke, CEO of Environmental Technologies, Inc.] was very supportive. He continued to pay my salary while I was away. And my boyfriend, John Johnson, is a musician so he understood my crazy schedule. But it was still tough.

“I only saw John once in four months.”

Thoughts of home dissipated once the Games began. Harrigan and her teammates played nearly every day of the two-week event with only one day off before the final game. But the hard work paid off when the United States captured the gold.

“It’s hard to describe what it was like standing on the podium to receive my medal,” Harrigan said. “I felt so many emotions. My family and I had a falling out prior to the Games, so they weren’t there to see me get my medal. That was disappointing. My boyfriend couldn’t afford to fly to Georgia, and I was sad about that. At the same time, I had just won a gold medal in the Olympics. It was very emotional.”

Harrigan’s return to Las Vegas prompted a flurry of media attention.

“The questions I was asked most often in interviews were about my hair, my makeup, and my red, manicured nails. Everyone thought that I was making a statement about female athletes being feminine. But this is just me. I like to wear makeup and have my hair styled nicely.”

Statement or not, Harrigan and her teammates have become role models for a generation of young girls who aspire to become elite athletes. But Harrigan is quick to acknowledge the contributions of those who went before her.

“They who go before pave the way for those who are coming up,” Harrigan says, “I’m just part of that process now.”

In the months following the Olympics, Harrigan’s life returned to normal. She continues to coordinate seminars at motivational speakers and is beginning to develop her own talent as a speaker.

“I was recently asked to speak in front of a group of 2,000 people,
and I was scared to death. I can pitch before 10,000 people, and it doesn’t bother me a bit. But speaking in front of an audience terrifies me.”

“Her strong belief in the message of her speech — “never give up” — brought her through the experience. “I consider that to be my personal motto,” Harrigan says.

Eventually, Harrigan hopes to open a school for girls interested in athletics. But her immediate goal is to continue playing on the National Team while training for the next Summer Games in the year 2000.

VAUNE KADLUBEK

UNLV academic adviser Vaune Kadlubek is also making plans for the Games in the year 2000, but not as a player. The former All American women’s water polo hope to become the head coach for the first women’s water polo team in the history of the Olympics.

“I truly believe that the time has come for women’s water polo to be included, but the decision won’t be made until sometime later this year. I think our chances are good because we’re not asking for a new sport. Men’s water polo has been a medal event since 1904. Women’s water polo is the only counterpart sport that is not represented. It’s time to break that barrier,” Kadlubek says.

Kadlubek knows all about breaking barriers. While in high school in Santa Barbara, Calif., Kadlubek became the first girl in the country to play on a boy’s water polo team.

“I was a great offensive weapon,” she explains. “The boys on the opposing team didn’t know how to guard me, so they let me alone.”

Kadlubek’s talents and enthusiasm for the game eventually led to a position on the first U.S. Women’s Water Polo Team in 1979. The team’s goal was to win the 1980 Olympics. Kadlubek was named head coach of the U.S. Women’s National Water Polo Team in 1998.

“1996 was my last chance to be included in the Olympics as an athlete,” Kadlubek says. “But I’m not discouraged. I had three goals in life: to play water polo, to coach water polo and — when I’m too old to do either of those — to wheel my chair to the side of the pool to watch water polo.”

Watching water polo from the side of the pool is exactly what Kadlubek got to do at the 1996 Games. Hired as a spotter for the men’s team, Kadlubek worked on the pool deck identifying players and clarifying calls for the television production crew.

Aside from some cursory instruction on television jargon and camera positions prior to the start of the Games, Kadlubek required little preparation for the job.

However, she admits she was unprepared for the toll the hot, humid weather would take.

“I must have had five bottles of water a day,” she says. “Our venue was outside, so we were in the heat every day from nine in the morning to 10 in the evening. But tough as it was for those of us on the deck, it was even harder on our dedicated fans who sat in the heat for hours watching the matches.”

Although she wouldn’t have dreamed of missing the experience, she admits that she was ready to return home to resume her duties as academic adviser to UNLV’s volleyball.

“I’ll always be involved with athletics. I’m now responsible for advising students in four sports: men’s and women’s swimming, basketball, and softball. And I remind all my kids that they are fortunate to have a talent that lets them play a game they love. A lot of opportunities will come their way if they are willing to work hard.”

DEITRE COLLINS

Former Olympian and UNLV head volleyball coach Deitre Collins understands well the level of commitment needed to succeed as an elite athlete. A 1988 Olympian and a leading volleyball player both nationally and internationally, Collins has traveled the world playing the game she loves.

Her experience with the game and her knowledge of the players on the 1996 Olympic Volleyball Team made her the ideal candidate to serve as a spotter for the volleyball events.

“My job basically was to serve as the eyes and ears for the NBC director, camera people, and producers who were covering the volleyball games,” Collins explains.

She was employed by Atlantic Olympic Broadcasting, the organization that provided the television feed for countries covering the games.

“Usually, the camera people feed off what the commentators say. However, in this case, they had to feed off of what I said. So I did the play by play. I had to know who was going to jump serve, who was going to make the kill [the shot that scores the point], which side the serve was going to be on, and so forth.”

Collins worked long hours; she was often as the event from 9 a.m. to midnight with just a short break in the middle of the day.

“Having been to the Olympics as an athlete and then as a paid employee, I can definitely say that it is so much better being an athlete,” she says with a laugh. “Athletes are taken care of. They don’t have to deal with the crowds. They have people whose responsibility is to get them where they need to be.

All they have to do is show up and perform.”

The little free time Collins did have, she spent with her friends on the team — a bittersweet experience for the recently retired Collins.

“It was difficult. These were people who I had played with, and they were still on the team. I didn’t make the 1992 Olympic team, but I played with these women from ’92 until ’94 when I retired.”

Collins’s favorite memory of the Olympics was the first night that the women’s basketball team played. “The crowd was huge. I got goose bumps just being there. To hear that crowd roar was very exciting.”

Aside from that game and the long hours, what Collins remembers most about the 1996 games was the security. Because she was housed in the same hotel as the Dream Team, she had gotten accustomed to the intense security surrounding the hotel. But the bombing at Centennial Park was a wake-up call to all involved in the Olympics, as well as to the rest of the country.

“When I played in France, there was a lot of violent activity in Saudi Arabia and that felt close. I remember thinking, ’I can’t wait to get back to the United States where I’ll be safe.’ But after the bombing, I wondered if it was safe anywhere anymore.”

The bombing, the early defeat of the U.S. Volleyball Team, and the long hours all caught up with Collins the last week of the Games.

“I had fun watching the games, and I learned something new, but I was anxious to get back to UNLV. As much as I’ve been involved with volleyball as a player, to be a head coach and to be building my own team was more important to me this past summer than being at the Olympics.”

“When you have done something so thrilling for a long period of time and then comes to an end, you have to find what to do next. A head coach position is the perfect opportunity for me at this time in my life, and I truly believe I can make a contribution here.”

UNLV’s head volleyball coach Deitre Collins worked for the organization that provided the television feed for the countries covering the games. She served as a spotter for volleyball events.
Fishing for Enlightenment

or

Getting a Line on Evolution

Constructing genealogical charts for fish might sound a bit esoteric to some. But UNLV biologist Andrew Martin’s research on the evolution of fish holds promise for enlightenment on subjects far greater than the lineage of your guppy.

By Barbara Cloud

An invitation to eat poisonous fish would most of us begging for a Big Mac. But McDonald’s cuisine was not an option for UNLV biological sciences professor Andrew Martin one night several years ago when his research took him to a remote Fijian island.

He had just helped some stranded islanders when they offered him fugu, also-called pufferfish, for dinner. He explains that the fish, which contains a deadly toxin, is a unique culinary delight — with a twist.

“If prepared correctly, it leaves you euphoric,” he says. “If prepared wrong, it leaves you dead.”

Fortunately for Martin, it was a good night for pufferfish. The fish was prepared correctly, and he lived to tell us about it — and about the work that took him to that neck of the Pacific Ocean, as well as many other distant points on the map.

Martin is a marine biologist interested in the evolution of fish, and his research has taken him to such assorted locales as the Amazon Basin, Puget Sound, and Nevada’s Devil’s Hole, in addition to the South Pacific.

All of these spots offer Martin watery laboratories in which he can study the evolutionary process that has resulted in such vast diversity of life on our planet.

Referring to what some have called the “last frontier,” Martin says that the seas are beginning to yield important clues about evolutionary change that could someday produce more than insights into the lives of fish. He believes these clues could eventually lead to breakthroughs in our understanding of the human body that might enable us to better control the aging process.

To this end Martin studies the DNA of fish; a few years ago, his work in this area led him to a discovery that forced conventional wisdom was Martin, “you count the changes that are revealed in a stretch of DNA and divide it by the clock. Scientists have used this method, for example, to try to determine when humans last shared a common ancestor with chimps and gorillas.

E evolution is the result of mutation — changes in the genetic information coded in DNA — and it is something that goes on in living things all the time, Martin explains. “In our bodies, for example, in the course of a single day, thousands of mutations occur, and our bodies have to deal with them. Our bodies either correct the mutations or they don’t, and if the mutations aren’t corrected, the DNA is damaged. The accumulation of damage is one of the reasons we age.”

Mutations in DNA also occur from one generation to the next. Martin says it’s a regular process, and until recently scientists thought that all species mutated at the same rate. This common mutation rate was known as the “universal molecular clock.”

To develop a family tree, Martin says, “you count the changes that are revealed in a stretch of DNA and divide it by the clock.” Scientists have used this method, for example, to try to determine when humans last shared a common ancestor with chimps and gorillas.

Only it turns out that the clock isn’t quite so universal, after all.

In the 1980s, researchers began to realize that there is a lot more variation in the molecular clock than was originally thought. Among those questioning the conventional wisdom was Martin, then a University of Hawaii Ph.D. student. “I tested the hypothesis that there is a universal mutation rate or molecular clock by comparing mutation rates in sharks and primates,” Martin says. “Much was known about primates, such as humans and chimpanzees, and Martin selected sharks for comparison because, he says, “Amazingly, we have a
lot in common. "Sharks mature at a late age, and we mature late. They are live bearers, so are we. They are basically a lot like us in ways that potentially affect how fast mutations occur, but they are very different in physiology. In particular, they are cold-blooded."

Sharks have another attribute that made them good subjects for this study: lots of teeth. Martin says a single shark may grow and lose as many as 10,000 teeth in a lifetime. These teeth fall into sedimentary layers of shoreline where they become part of the fossil record. Using this fossil record, Martin and colleagues Stephen Palumbi of the University of Hawaii and Gavin Naylor of the American Museum of Natural History were able to estimate the mutation or evolutionary rate of several species of sharks. When they compared the shark DNA mutation rates with the carefully calibrated data that exists for primates, they discovered that sharks mutate much more slowly.

Sharks accumulate mutations, the raw material of evolution, at a rate about 10 times slower than primates, they calculated. Naturally, they wanted to know why.

"The only thing that could really explain it was the fact that they are living life at a slower rate," Martin says. "They respire [breathe] at a lower rate, and their metabolisms are much repressed in comparison with ours. We're really slow breathers. Our cells process information really fast."

Martin explains that it is well established that metabolism is related to the size of a creature and whether it is warm-blooded or cold-blooded. Among warm-blooded animals, whales have a much slower metabolism than mice, and cold-blooded animals are slower than warm-blooded.

So, as Martin explains, "If you are cold-blooded and big, you are going really slowly."

No one had really considered that mutations might follow a pattern similar to that of metabolism. "But it makes perfect sense," Martin says, "that the cells that govern what happens in us every day also influence the DNA and, thus, the mutation rate."

The discovery drew worldwide attention and opened new lines of thinking about evolution. "It was neat," Martin modestly says of the reaction to the article they published in 1992 in the Proceedings of the National Academy of Science.

But like most scientific discoveries, this one raised as many questions as it answered, and led Martin deeper into the problem — as well as deeper into the ocean. He is now working with both deep- and shallow-water fishes; he compares the mutation rates of fish that dwell thousands of feet under the sea and those that live at around the 600-foot level.

H is studies into the deeper regions of the sea have brought him more than insight into his research. He has also developed a kind of astonishment at the diversity of life way down there. For beneath the surface, he says, live all kinds of marine creatures — worms, octopus, fish, and, yes, even monsters. Monsters? Really? Yes, says Martin. "There are some really bizarre creatures down there, including some species that have changed little in the past 700 million years."

Martin is particularly intrigued by a shark he calls the megamouth. "This is a cool fish," Martin says. "It basically lives deep during the day and moves to the shallows at night. It's like a lot of ocean dwellers that go up and down with the light levels, following food sources."

The megamouth shark is related to white sharks and may get as big as 15 feet. It's fat, too. "Enormous," Martin calls it, "a really fuddy fish. A particularly distinguishing characteristic is its huge lips that glow in the dark. Scientists have obtained only a few megamouths for study, so they aren't sure what makes the lips glow."

"It's either got its own way of making light or it harbors bacteria that make light," says Martin. "It also has a structure in the back of its mouth that is a reflective surface, like a mirror."

The light helps the megamouth keep food on the table. "If you put a flashlight under water, you'll attract shrimp and other food. That's what these things are like — giant flashlights slowly moving through the water, sucking in whatever comes near and filtering the water out through their gills."

The megamouth studies and the comparisons between deep- and shallow-water fish are aimed at determining what makes the cells mutate at a particular rate. "If we can figure out what causes mutation rates in a cell, we can potentially learn to control it ourselves, stop aging and some cancers," Martin speculates.

He adds that interest in shark mutation rates is heightened by the fact that "there's never been recorded a naturally occurring cancer in sharks. A lot of other fish get all kinds of cancer. Since mutation rates have a direct bearing on the development of cancer, the focus is once again on the issue of mutation, Martin says.

So the question becomes, "Is it just metabolism that affects the mutation rate or are there other factors involved?"

Martin works with bits of tissue taken from the sharks and other fish to continue analyzing the subject. The tissues he uses can be as small as a clipping of the fin or a piece of the gill.

"You extract the DNA from the tissue basically by just dissolving it in a detergent which makes the membranes fall apart. You're left with the DNA."

Then, says Martin, a process called a "polymerase chain reaction" creates billions of copies of a gene in a test tube in two or three hours.

"You need large numbers of copies of DNA in order to determine its sequence," Martin explains. Using radioactivity or dye, he then "labels" the DNA so that changes — mutations — will show up in his analysis. Martin also applies this technique to the tiny Devil's Hole pupfish, an endangered species that lives in Ash Meadows between Las Vegas and Death Valley.

The entire pupfish population consists of about 200 individuals. "It's

I nterestingly, it was the variability of desert — not aquatic — life that first attracted Martin's attention to the study of evolution. Growing up in the desert around Tucson he collected snakes, lizards, spiders, scorpions, and other critters. "I had tanks all over the house," he recalls, "and every once in a while something would escape, and my parents would get upset."

These experiences led to a "nagging desire to find out why there is so much variability in nature," which in turn led to an interest in DNA. Martin wanted to continue his education after completing his bachelor of science degree at the University of Arizona, but he also wanted to continue on page 28
Though UNLV alumnus Ron Husband has great fun in his career as a Disney animator, he wouldn’t want us to believe his work is kid stuff. There’s a whole lot more to animating Disney films than one might think, he says.

BY SUZAN DIBELLA

There aren’t many jobs out there that would require you to know how a goat walks. Or how a goat would look with a pipe in its mouth.

But for UNLV alumnus Ron Husband, it’s all in a day’s work. He is a supervising animator with Walt Disney Feature Animation, and his most recent creation for the big screen was a goat named “Djali” in The Hunchback of Notre Dame.

To bring Djali to life, Husband had to find out everything he could about goats—from information on their skeletal structure and their musculature to the colors and textures of their coats. His research for that particular character took him, among other places, to the petting zoo at Disneyland.

“I spent the whole afternoon watching the goats, taking home movies of them, and even feeling their musculature,” Husband recalls with a seriousness that lets you know he was oblivious to what others might have thought about his intense focus on the animals.

“You know, goats don’t move like dogs or cats. They’re more similar to cows or other hoofed animals.”

And his research didn’t stop there. Later, back at the studio, he asked one of his colleagues to imitate a goat head-butting someone else from behind so he could analyze the movement.

UNLV alumnus Ron Husband, who has been animating characters for Walt Disney Feature Animation for more than 20 years, spends a great deal of time researching his subjects before going to the drawing board.

UNLV alumnus Ron Husband, who has been animating characters for Walt Disney Feature Animation for more than 20 years, spends a great deal of time researching his subjects before going to the drawing board.

Going to such great lengths is not uncommon for the animators at Disney, nor is it considered ridiculous in any way, Husband reports, adding that they do whatever it takes to get the job done.

But exactly does the job entail? We’ve all seen the end product of Disney animation—the rich colors, the flowing movements, and the tear-jerking story lines. But who does it take to make it all happen?

Some 600 people are responsible for a finished animated feature film, according to Husband, and naturally, each has his or her own part in the process. There are those who develop the story, those who design the characters, and those who sketch out the storyboards of the script. Then there are those who create backgrounds and special effects and those who color in all of the scenes.

But at the heart of all of this creative activity is the work of Husband and his fellow animators; they are charged with the task of taking the established characters and bringing them to life through their drawings. In a word, they do exactly what their title indicates: they animate their characters.

For Husband, that means making the characters give an acting performance, complete with facial expressions, gestures, and movement. What’s more, the animators must make the characters move with a fluidity and authenticity unparalleled by any other animation studio in the world.

Their goal, he says, is simply to make their audiences forget that they are watching a series of drawings.

“Our primary purpose as animators is to tell a story. And we want to tell it to the extent that the audience gets so involved in following the story that they forget that it’s an animated picture,” says Husband, who graduated from UNLV in 1973 with an art degree.

“It’s the intent of the animator to let the audience get lost in the drawn lines and just
follow the story."
For that to happen, he points out, each animated character must have life and depth and feeling. And it is his job not only to make his characters look real, but also to make them act like real people — even when one of them happens to be, for instance, a goat.

"The seriousness with which Husband approaches his work paid off for him in The Rescuers, the first film on which he served as a supervising animator. He beams like a proud parent when he notes that the amount of screen time Djali received in the finished film was double of what it was originally. In previous films, Husband says, "I was always blessed with the ability to make a character's mouth. Animators sometimes observe the actor or actress doing the voice characterization so that they can draw the character."

Husband says telling a story through his characters is the most important part of his job, drawing is secondary. "It's like being a second character in the picture. His part was minor — he had not quite 300 feet of animation. But then when the producers saw footage of him, they would say, 'Djali's looking pretty good. Let's write him some more parts.' It was like The Fonz in Happy Days. He was a minor character, and then people started liking him, so his part expanded."

"And Djali sort of took the edge off the story in the sense that he was a light, comical character," Husband says, adding that the goat was able to lend a little lightness to a very heavy story — one that included such themes as lust, murder, and a man tormented by loneliness and unrequited love. "That's pretty serious storytelling."

But exploring deep emotions is an integral part of any storytelling, Husband says, noting that, even though Disney characters are frequently animals, they often end up using very human emotions. "For example, in The Lion King, the lion becomes a little boy who just lost his mother. So, the animator had to communicate that loss through the character. As animators, we deal with universal emotions. There are certain things in life that convey all the world — laughter, love, hate. These are deep emotions in every culture and in every civilization. We capitalize on those basic emotions and try to bring them out in our animation."

He compares his job to that of an actor interpreting lines in a play: he must bring expression to the words in the script and meaning to all of the character's movements — and he must do it all through the use of a pencil. He is mindful that with one false stroke of that pencil, the willing suspension of disbelief will disappear like so much fairy dust. And then the audience will notice the medium and revert back to seeing just a clever series of drawings.

While Husband recognizes that drawing is his chief responsibility, he also feels that drawing is integral to his job, maintaining that it's less important than other aspects. "The basic drawing skills have to be there. If they're not, you can't get into animation at Disney. When you join the team, it's understood that those basics have to be there. Then, once you're in, you begin to build on the basics. And that building involves learning acting skills, timing, what it takes to pull over a gag, what's funny, what's not. We take classes on all of those things to better ourselves as storytellers. Then there are ongoing classes to help us hone our drawing skills."

Ditney provides classes two or three times a week for its animators, Husband says. They cover a whole host of disciplines, including acting, human and animal anatomy, art and sculpture, just to name a few. Additionally, various drawing classes, such as life and figure drawing, are offered. Producers will bring in caricature artists and mime colleges to college professors to animal handlers from nearby zoos. "They even brought in Jane Goodall with "Soy, the animator had to communicate that loss through the character. As animators, we deal with universal emotions. There are certain things in life that convey all the world — laughter, love, hate. These are deep emotions in every culture and in every civilization. We capitalize on those basic emotions and try to bring them out in our animation."

The next step is the actual animation of the character. The animator is responsible for the key drawings in a scene — the ones that convey the character's most important emotion or action. Then, animators, called "in-betweens," fill in the other drawings.

Which comes first — the recording of the character's voice or the drawing of the character? Despite what you might have seen in the movies, the voice characterization is done first. The voice is necessary for the animator to know how to shape the character's mouth. Animators sometimes observe the actor or actress doing the voice characterization during the recording session to gain insight into the interpretation of the script.
to math. Working on period pieces, I’ve thought of my history classes. You know the class, and I’ve used it.”

In addition to his academic subjects, he learned discipline at UNLV, both in the classroom and on the football field.

“I graduated right as the nose,” Husband says proudly. “I took 18 credits the first semester of my senior year and 21 the next. I was really busy.”

“I was married by 21 years in January,” he adds.

“I was married by 21 years in January,” he adds. “I had two part-time jobs, and I was married by then.”

Yes, you heard right. He married his high school sweetheart, LaVonne, when he was 21 years old during his junior year at UNLV. They honeymooned in his dorm room in Tonopah Hall.

“She came up on the bus on a Friday evening. I asked a friend with a car to drive us downtown so we could get married. We were in a hurry because we wanted to get there before the weekend kicked in. At the time, I was living on a $15-a-week football stipend, so we were trying to save money. Well, we didn’t make it in time, so we had to pay the full rate, and then we found out we would have to pay extra if they provided a second witness. So we went down the hall and asked a complete stranger to be our second witness.” He smiles as he reports that he and his wife, who have three grown children, were married 25 years earlier with the goal of bringing them off Monday at the studio guard post and telling me I could start whenever I wanted.”

“After graduating, I returned to Southern California thinking that with a degree in art and the portfolio I had put together, I could find a job as a commercial artist. That wasn’t the case. Now I know that most of the commercial art jobs are in Chicago and the New York area,” he says. He reluctantly took a job with Honeywell doing technical illustrations, mostly block drawings and flow charts. After a year and half, he made a decision that changed the course of his career.

“I decided that if I wanted to do something more creative, I had to be in a more creative field, Husband presented his portfolio at Disney.

“Basically, I was rejected,” he recalls, smiling. “My portfolio contained finished drawings, illustrations mostly. It turned out that what they wanted to see were quick sketches, life drawings, and figure drawings, to make sure I could handle perspective and anatomy. When I found out what they wanted, I thought, ‘Gee whiz, I’ve been carrying around a sketchbook since I was in high school.’ So, I just went home and over the weekend cranked out some new sketchbooks and dropped them off Monday at the studio guard post.”

In the following months, Husband continued on page 29

For Dennis Swartzell, supervising the landscaping of the university’s 335 acres is no small feat. He must find a way to strike a delicate balance between beauty and function.

By Diane Russell
about plants and landscaping,” Swartzell says. “People can come out here to learn about desert landscaping, to take a look at what kinds of plants work well in our arid environment.”

The UNLV campus, all 335 acres of it, is a state arboretum—a designation bestowed by the 1985 Legislature. By definition, an arboretum is a place where trees, shrubs, and other plants are cultivated for educational and scientific purposes. Swartzell takes UNLV’s role as an arboretum very seriously.

“We have self-guided tours that allow people to walk around the campus and take a look at our mature plants. All the trees and plants on the tour are labeled, which allows people to write down the names so they can ask for the plants at their nurseries.

“Sometimes people forget that a lot of our neighbors aren’t from Las Vegas and aren’t aware of the plants commonly grown here,” says Swartzell, who was recently honored as co-recipient of the President’s Outstanding Professional Staff Member of the Year Award for 1996 at UNLV.

“So if somebody comes in from Cleveland or Florida or Washington state, they can take our tour and see some of the plants that are a little bit more common to the area that they may have never seen before,” Swartzell adds.

Swartzell himself is a transplant to the area. He came to Las Vegas in 1982 from his native Georgia, where he earned a degree in agriculture with a major in floriculture at the University of Georgia. He recalls that before he arrived here, he had never seen some of area’s most ubiquitous varieties of flora, such as the European olive tree. Swartzell points out that particular tree, though widely planted on the campus years ago, is now banned in Southern Nevada, due to its prodigious production of allergens. That is the kind of information he shares with campus visitors during his landscaping education sessions.

“We offer programs on Saturday mornings about once a month that are open to the public,” he says, continuing his list of UNLV’s outreach activities for home gardeners. Topics vary, but they usually include such favorites as new plants, transplanting, and pruning.

One subject that is discussed almost always, regardless of the announced topic, is water conservation, according to Swartzell. “It’s almost a given now. We just incorporate it into the various programs that we provide.”

Water conservation is also a concern on campus. It’s one of the reasons that the profligate use of water, in particular, is the kind of change that Swartzell says people are beginning to see.

“People can come out here to learn about water-efficient landscaping,” Swartzell says, adding that Hovers was the first to eagerly agreed. Eight students worked on the project two years ago, dividing the approximately 18 acres of turf that we felt we could live without for one reason or another: they were inefficient, too small, too water-consuming, whatever. So that’s our goal: to take 18 acres of that total 60 and put in other things.

“We just chew off little pieces each year—whatever we can afford to do—and try to make those conversions,” he says. The first conversion project tackled was the removal of a small piece of turf located just east of the Lilly Fong Geoscience Building. The campus’ recycling coordinator, Tara Pike, who as a UNLV student founded SCOPE (Students Concerned of Protecting the Environment), suggested that students be included in the project.

“She proposed that we do something called ‘stomp the grass’ where the students could come out and participate in the actual turf removal,” Swartzell says.

That successful project was the subject of a video produced by communication studies students; Pike then used the video as a fund-raising tool to promote donations for further turf reductions. Two other areas have been tackled as a result of the donations— one near the Bean Engineering Complex and another north of Wright Hall. The donors so far have included Kleinfelder Engineering, Nevada Power Co., Kinko’s, the Community Action Recycling Program (CARP), UNLV’s student government, SCOPE, and Sigma Gamma Epsilon, the national geoscience honor society.

Swartzell predicts that the majority of the targeted grass can be removed and replaced with plants or groundcover without most people even noticing. Yet, the change will save water, money, and maintenance time, he says.

When the conversion to perennial flowering plants was done outside the geoscience building, Swartzell’s workers installed a water meter so that the difference could be measured. The result, he says, has been a reduction of thousands of gallons a week.

While desert landscaping was a hard sell for Southern Nevada homeowners for many years, it’s catching on, Swartzell says. The major reason, he believes, is increased water costs.

“Why was there a reluctance to begin with?”

“I think most people have a misconception about water-efficient landscaping,” he says. “People think everything that can be done to save water, money, and maintenance time, they have to give up. A lot of times water-efficient landscaping can be very lush, very green, very colorful. It’s just more water-efficient.

“Xeriscaping is a very pleasing type of landscaping that utilizes drought-tolerant plants,” he says. “Xeriscaping embraces the concept of an oasis around the immediate living area.” It should not, he warns, be confused with “zeroscaping,” a type of landscaping that often consists of “a rock and maybe a cactus and a wagon wheel.”

People interested in seeing a good sampling of the variety of water-efficient plants available in Southern Nevada, should stop by UNLV’s xeric garden. Swartzell suggests.

“It’s kind of our prize,” Swartzell says of the small garden located on 1.5 acres just east of the Marjorie Barrick Museum of Natural History. Filled with more than 150 species of trees, shrubs, flowers, and groundcovers, the garden is popular with students and campus visitors alike.

It was recently expanded toward the north with the help of the master gardeners, a group of citizens who have earned their title through a cooperative extension program. Swartzell works with the master gardeners on a regular basis.

One day during the expansion project, Swartzell stopped to visit a solver some of the new work. “Is that great?” he asked, snapping off a sprig of Mr. Lenox marigold. “And this one is called a licorice marigold,” he added, professing a piece of another aromatic plant.

Swartzell remembers well the creation of the garden in 1988—particularly the activity that took place one cold February day when members of the two local cactus and succulent societies came out to help plant the drought-tolerant shrubs. Swartzell’s crew had dug the holes in advance, but all the planting remained to be done. “It was 30 degrees with 40 mile-per-hour winds. We planted 700 shrubs in one day.”

Today, the desert demonstration garden provides home gardeners a chance to get ideas of what might work in their yards. Swartzell stresses that the garden at different times of the year so that the plants can be seen in all their various stages.

Swartzell, who frequently writes for trade journals, recommends that every yard have a plan rather than being a haphazard arrangement of plants. For people who want grass in their yards, the best placement of it typically is in the high-use areas. Swartzell’s own backyard, for instance, features turf near the living area so that his dog has somewhere to play. Beyond the turf are water-efficient plants, with the lush plants located nearest the house. The farther from the

“...I think most people have a misconception about water-efficient landscaping. People think everything is gray, thirsty, and boring. Well, it doesn’t have to be...”

— Dennis Swartzell

Swartzell notes that UNLV’s xeric garden, seen here, offers a multitude of examples of drought-tolerant plants and trees for those interested in exploring their landscaping options.

W
**MARCH 1997**

1. **Hockey**: Las Vegas Thunder vs. Houston. 7:05pm. Thomas & Mack Center. 895-3900.
2. **Performing Arts Center**: Albin Alley Dance Co. March 1, 8pm; March 2, 2pm. Artemus Ham Concert Hall. 895-3801.
3. **Art Exhibit**: "Women's History Month," Wednesdays, 8am-5pm. Jessie Mostaff Gallery.
4. **Basketball**; Western Athletic Conference Championship. Details TBA.
5. **Art Exhibit**: MFA Thesis Exhibit. 9am-5pm. Donna Beam Fine Art Gallery. 895-3801.
7. **Hockey**: Las Vegas Thunder vs. Long Beach. 7:05pm. Thomas & Mack Center. 895-3900.
8. **Music Department**: UNLV Wind Symphony. 7:30pm. Artemus Ham Concert Hall. 895-3801.
9. **University Theatre**: Ten-Minute Play Festival. March 5-8, 8pm; March 9, 2 pm. Paul Harris Theatre. 895-3801.
10. **Hockey**: Las Vegas Thunder vs. Cleveland. 7:05pm. Thomas & Mack Center. 895-3900.
12. **Art Exhibit**: "Wheatons History Month." Wednesdays, 8am-5pm. Jessie Mostaff Gallery.
13. **Basketball**: Western Athletic Conference Championship. Details TBA.
14. **University Forum**: "Beyond Serving." Weekdays, 8am-5pm. Jessie Mostaff Gallery. (thru May 2)
18. **Master Series**: Cincinnati Symphony Orchestra. 8pm. Artemus Ham Concert Hall. 895-3801.
19. **Alumni Event**: Board Meeting. 6pm. Richard Tam Alumni Center. 895-3621.
20. **Variety Show**: Paddy Noonan's Irish Variety Show. 8pm. Artemus Ham Concert Hall. 895-3801.
22. **Family Affair**: Muowest Polish Folk Ensemble. 8pm. Artemus Ham Concert Hall. 895-3801.
24. **Family Affair**: "The Magic Man." March 7 & 8, 7:30pm; March 9, 2pm. Artemus Ham Concert Hall. 895-3801.
25. **Hockey**: Las Vegas Thunder vs. Manitoba. 7:05pm. Thomas & Mack Center. 895-3900.
27. **Hockey**: Las Vegas Thunder vs. Cleveland. 7:05pm. Thomas & Mack Center. 895-3900.
31. **Hockey**: Las Vegas Thunder vs. Cleveland. 7:05pm. Thomas & Mack Center. 895-3900.

**APRIL 1997**

1. **Art Exhibit**: "Beyond Serving." Weekdays, 8am-5pm. Jessie Mostaff Gallery. (thru May 2)
2. **5-10 Bull Riders**: Wrangler Bull-Riders-Only World Championship. April 3 & 4. 7:30pm. Time TBA. Thomas & Mack Center. 895-3900.
5. **Chamber Music Southwest**: Emerson String Quartet. 8pm. Artemus Ham Concert Hall. 895-3801.
6. **University Forum**: "We Are Westerners: The English of Western America in the 20th Century." 7:30pm. Frank & Estella Beam Hall 242. 895-3801.
7. **Wine Tasting**: UNLVino. 2-7pm. Ball y's. 895-3801.
10. **University Forum**: "We Are Westerners: The English of Western America in the 20th Century." 7:30pm. Frank & Estella Beam Hall 242. 895-3801.
12. **Alumni Event**: Board Meeting. 6pm. Richard Tam Alumni Center. 895-3621.
13. **Variety Show**: Paddy Noonan's Irish Variety Show. 8pm. Artemus Ham Concert Hall. 895-3801.
15. **Family Affair**: Muowest Polish Folk Ensemble. 8pm. Artemus Ham Concert Hall. 895-3801.
17. **Community Concert**: Moscow Ballet. 8pm. Artemus Ham Concert Hall. 895-3801.
19. **Chamber Music Southwest**: Andrew Smith. 8pm. Black Box Theatre. 895-3801.
20. **Chamber Music Southwest**: Andrew Smith. 8pm. Black Box Theatre. 895-3801.
21. **Chamber Music Southwest**: Andrew Smith. 8pm. Black Box Theatre. 895-3801.
22. **Chamber Music Southwest**: "The Secularist." 7:30pm. Frank & Estella Beam Hall 242. 895-3801.
23. **Chamber Music Southwest**: Andrew Smith. 8pm. Black Box Theatre. 895-3801.
25. **Chamber Music Southwest**: Andrew Smith. 8pm. Black Box Theatre. 895-3801.
27. **Chamber Music Southwest**: Andrew Smith. 8pm. Black Box Theatre. 895-3801.
28. **Music Department**: Elementary Choral Festival. 9am-1pm. Artemus Ham Concert Hall. 895-3801.
29. **Music Department**: Elementary Choral Festival. 9am-1pm. Artemus Ham Concert Hall. 895-3801.
30. **Music Department**: Elementary Choral Festival. 7:30pm. Artemus Ham Concert Hall. 895-3801.
31. **Music Department**: Elementary Choral Festival. 7:30pm. Artemus Ham Concert Hall. 895-3801.

**S.P.R I N G 199 7**
**MAY 1997**

1. Music Department: University Choir, 8pm, Artemus Ham Concert Hall, 895-3801.
2. Nevada Symphony Orchestra: Classical Concert. 8pm, Artemus Ham Concert Hall, 895-3801.
3. Music Department: Jazz Ensemble I, 8pm, Judy Bayley Theatre, 895-3801.

**JUNE 1997**

1. Nevada Dance Theatre: Youth Ballet, 2 & 7pm, Artemus Ham Concert Hall, 895-3801.
2. Dance Concert: Modern Dance Recital, 6pm, Artemus Ham Concert Hall, 895-3801.

**Drawing**

continued from page 18

leamed the ins and outs of animation, including timing, perspective, and "squash and stretch," a term used to describe how animated characters move.

"Animators have to squash or stretch some part of their characters' bodies to make them move," Husband explains, adding that, for example, when we talk, our mouths are constantly squashing and stretching. "But knowing how much to squash or stretch is the key, and that's based on the character's skeleton and muscle structure and on how 'cartoony' it is. For instance, if the character drops its arm, and then the arm stretches all the way to the ground and then pops right back up, that's cartoony. That works if the character is Goofy. But if it's Snow White, no. There's a difference in how much you can exaggerate the motion. These are the kinds of things we learned in the training program.

Husband passed the trial period and soon found himself working his way up the Disney animation ladder. He first served as an "in-betweener" (the person who draws the character in between the key drawings that are provided by the animator) for Frank Thomas, one of the "nine old men." Husband went on to take higher positions, each requiring him to accept increasing responsibility for the characters he drew.

But then, in May 1978, a setback came. Husband found himself losing weight and feeling extremely fatigued with no idea of what was causing it. "I took some time off to try and catch up on my rest," Husband says. "I remember lying in bed and getting a call from Disney telling me that I had been promoted to animator. I was so pleased, but I just sort of whispered, 'thank you,' and rolled over and went back to sleep."

Finally, after seeing a long line of doctors who offered little insight, Husband saw a neurologist who diagnosed him quickly: he had a growth located at the base of his brain, and surgery was required immediately.

"He hospitalized me right away, and they performed eight hours of surgery," he says, pointing out the three-inch scar on the back of his neck. "The doctor told my wife — but not me — that I was probably going to die on the operating table. He said even if the operation was a success, I was probably going to be paralyzed from the neck down."

Fortunately, the growth was a benign cyst, and Husband was not paralyzed by the operation. But they weren't so sure about how his motor skills would fare. "After the surgery, they were very concerned that I might have lost my drawing skills. So my wife and brother kept pushing a sketch pad and pencil into my hands to see if they were still there. I, of course, had no idea what they were up to."

He did lose many motor skills initially; he could hold a pencil, but he couldn't control it. But over the course of the summer, he slowly recovered.

"I had to learn to walk again. I had to learn to brush my teeth again," he says. "I was very aware of my balance and trying to get that back. That came back slowly. I remember taking little baby steps with a walker and eventually being able to take a few steps, then being able to walk down the street the length of one house and back, and then around the block."

When he returned to work, he was greeted by overwhelming support — and his new position as animator.

"There was a lot of support there," Husband says, adding that there still is. "Everybody wants everyone else to do well. There's such a cooperative effort at Disney to get the job done that everyone builds on the quality of the work that others have already accomplished."
Brenda Judi Leake, '71 AA Nursing, '86 BS Nursing, just completed 25 years of employment as a nurse at Sunrise Hospital. In 1979, she became the first international therapist in Nevada. She is an avid traveler and made a trip around the world in 1985.

Debra Croce Cameron, '78 BS Hotel Administration, has been a partner in the Incredible Graphics company for 14 years. She oversees all the computer systems of the design firm. After graduating from UNLV, she worked in management of fine dining establishments in San Diego and in Rochester, N.Y. She lives in Finnisfield, N.T., with her husband, Jim, and sons Alex and Max.

Anthony T. Tamaccio Jr., '86 BS Hotel Administration, is president of Tamaccio Brothers Inc., construction company in New Jersey. He recently moved to Florida to continue his career. He lives in Boca Raton.

Anthony V. Tamaccio Jr., '86 BS Hotel Administration, is president of Tamaccio Brothers Inc., construction company in New Jersey. He recently moved to Florida to continue his career. He lives in Boca Raton.

Chris Meyer, '84 BS Business Administration, has been promoted to the position of director of sales at the Sands Expo. He has been serving as national sales manager and was the sales leader at the facility for five years in a row. Previously, he had worked at the Tropicana Resort & Casino, the Flamingo Hotel, and at the Marina Hotel & Casino.

Anthony V. Tamaccio Jr., '86 BS Hotel Administration, is president of Tamaccio Brothers Inc., construction company in New Jersey. He recently moved to Florida to continue his career. He lives in Boca Raton.

Chris Meyer '04

Donna R. Brekhin, '86 BS Biological Sciences, '87 MS Biological Sciences, graduated from the University of Osteopathic Medicine and Health Sciences and Surgery in Des Moines, Iowa, in 1993. More recently, she finished a pediatric residency at the University of California Irvine Medical Center. She currently is a traveling doctor, crossing the nation to fill in for other doctors. In July, she will begin a pediatric cardiology fellowship at Denver Children’s Hospital.

Kenneth J. Egeland, '86 BS Engineering, '94 MBA, is the president of KJI Consulting Engineers Inc. The corporation provides civil engineering services.

David Pokorny, '86 BS Computer Science, '93 MBA, is a senior producer with Hasbro Interactive in Beverly, Mass. Hasbro Interactive creates interactive CD-ROM video games.

Kim Young-Koy, '87 BS Hotel Administration, is the front office manager at the Hyatt Regency in Paramus, N.J.

John Avery '67

John B. Avery, '87 BS Business Administration, is the business manager of the Nevada division of TRW Environmental Safety Systems Inc. TRW is the management and operating contractor for the U.S. Department of Energy for the Tucora Mountain Site Characterization Project. He earned an MBA from Golden Gate University in 1996.

Darius Brightborn, '90 BA Sociology, is a communication officer with the U.S. Marine Corps at Camp Lejeune in North Carolina. He is planning to attend law school. He lives in Jacksonville, N.C.

William A. "Wick" Cannon, '90 BS Business Administration, earned an MBA in finance and international business from the University of St. Thomas in 1995. He is a senior programmer and analyst with the Variable Annuity Life Insurance Company (VALIC). He lives in Houston.

Donna Dockery, '86 BS Hotel Administration, '95 MAA, recently received the food and beverage controller at Treasure Island Hotel & Casino. She and her husband, John, have their second child, Mary Katherine, born on Jan. 25, 1996.

Clark Gabriel McCarrar, Jr., '91 BS Engineering, is an engineer at South West Gas Corp. He designs transmission and distribution gas lines. He is president of the Southern Nevada chapter of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and is a charter member of the Las Vegas alumni chapter of the National Society of Black Engineers. He is also vice chair of the professional development committee for UNLV's Minority Engineering Program.

Michael Koester, '92 BS Athletic Training, graduated from the University of Nevada School of Medicine in 1996. He is now in his residency training in pediatrics at the University of Washington School of Medicine in Seattle.

Stacy Ogletree-Sweeney, '92 BA Anthropology, is the research and development analyst for the forensic toxicology department at Associated Pathologists Laboratories. She is responsible for the method development of hair and urine drug testing, utilizing both immunoassay technology and gas chromatography/mass spectrometry.

Christine Wagner, '92 BA Communication Studies, is producer of a television program for KVTV TV-5, called New Horizons Las Vegas.

Luis Y. Yao, '92 BS Chemistry, received her medical degree from the University of Nevada School of Medicine in 1996. She is currently working as a family practice resident in Las Vegas.

Christopher K. Mitchell, '95 BA Communication Studies, is the weekend sports anchor and a reporter for KLAS TV 8 as a sports producer. Alphonso Manos, '95 BS Athletic Training, is a certified athletic trainer and is currently working as the head athletic trainer at Trevor Brown High School. He lives in Phoenix.

David L. Vu, '96 BS Business Administration, is a supervisor for Hasbro Research, a marketing research firm. He will be tracking trends and opinions in the computer industry. He lives in San Jose, Calif.

Attention Alumni — The UNLV Alumni Association offers a variety of social and cultural activities. For more information or to join the association, call 895-2071.

We'd Like to Hear From You!

We would like to invite all UNLV alumni to submit information about themselves to UNLV Magazine for inclusion in the Class Notes section. Please fill out the form below completely, type or print clearly, and avoid abbreviations. Also, please supply home and office telephone numbers so we can reach you if there is a question about your entry. We encourage you to submit a black and white photograph of yourself to accompany your Class Notes entry.

Name:
Year Graduated:
Address:
Phone Numbers:

Entry should be mailed to: UNLV Class Notes, UNLV News and Public Information, 4500 Maryland Parkway, Box 451012, Las Vegas, NV 89154-1012.
a change of scenery.

He decided Hawaii would be a “nice place” for graduate study, and the University of Hawaii fortunately had scientists doing path-breaking work with DNA. For his Ph.D. in biology he did the aforementioned study that led to the rethinking of the calibration of the molecular clock.

Obtaining a post-doctoral fellowship from the Smithsonian Institution, Martin next found himself on and in the waterways of the Amazon Basin in his continuing quest to understand diversity.

“We are interested in why there are so many species in the Amazon Basin,” he says. “It looks like there were brief periods of time when the creation of new species was rampant, then everything pretty much stayed the same for awhile.”

For example, he explains, five million years or so ago the world was cold with a lot of water tied up in glaciers. The Amazon Basin was then relatively dry, and evolutionary connections were broken. New species evolved, creating new branches on the evolutionary tree, and Martin has been tracking those changes.

He returns to the Amazon periodically to continue his studies of diversity, and there, of course, he encounters the Amazon’s most infamous fish, the piranha.

The first time he went to the Amazon Basin, Martin recalls, he didn’t know piranhas could be found everywhere.

“So I’m out there in the river, seiner away, and the Venezuelan ichthyologists I was with didn’t say anything. Then, we pulled in the net, and it was full of piranhas.”

Once he recovered from his initial shock, Martin found he could largely ignore the fierce fish. “They’re no problem unless you have a sore, and then they clean it very nicely — maybe too nicely,” he says.

As if to suggest turnabout is fair play, he notes that his expeditions have provided him with enough fish stories to fill a book — a cookbook, that is. He loves to eat fish and has sampled some unique species.

“Like a good biologist, I’ve sampled considerable diversity,” he says.

He has tasted most types of coral-reef fish, and says the “weirdest looking has to be the bird wrasse,” a small, blue fish with an elongated, beak-like snout, whose flesh is also bright blue.

Catfish abound in the Amazon, and Martin has sampled about two dozen varieties, including one specimen that was “as big as a boat and another that had whiskers at least five feet long,” he says, swearing he isn’t exaggerating.

Besides, as “fish stories” go, it would be hard to top the tale of the potentially poisonous pufferfish.

house one goes, the more drought-tolerant the plants should become.

One common pitfall that Swartzell urges home gardeners to resist is making their yards in Las Vegas look just like their previous yards did in Baltimore, Seattle, Des Moines, or San Antonio.

“That’s a real common problem here. For example, people bring in and want to use weeping willow. And weeping willows are just the worst trees for Las Vegas. They’re just the pits when it comes to root problems, water consumption, susceptibility to disease, and insect problems.”

Swartzell says that instead of looking to the areas where they lived before moving to Southern Nevada for landscaping ideas, Las Vegas gardeners should look to one of the desert models — either our own Mojave Desert, or the Sonoran, Chihuahuan, or Australian Deserts.

He suggests that from the Mojave, they might pick a creosote bush or a barrel, beavertail, or hedgehog cactus. If the Sonoran Desert is their model, they might choose an ocotillo or a teddybear cactus. The Chihuahuan Desert offers such ideas as the yucca, some native grasses, or the Texas sage.

“Native grasses fit into the landscape very well and are low maintenance. And many of them can be quite colorful. For example, we’ve been leaning toward the use of deer grass as of late,” he says. “We’re kind of excited about grasses, which seem to be the new trend in water-efficient landscaping. They add that soft touch.”

Flora from the Australian desert can add variety to a yard as well, but Swartzell warns against relying too heavily on trees or plants such as eucalyptus and cassia. Australian species had become quite popular in Las Vegas until one winter when many were lost in a freeze. Homeowners who had gone too heavily in that direction found themselves having to replace many plants at significant expense.

“You can mix and match. There’s nothing wrong with that,” he says. “The important thing is that the homeowner have a yard that is unique to him or her. Homeowners shouldn’t be afraid to try something different as long as the plants are suitable for this climate. The UNLV Arboretum can help them in making that determination.

“Also, homeowners should bear in mind that Las Vegas is perhaps one of the toughest locations in the country to grow plants,” Swartzell says. “They should just think of it as a challenge and know that any success should be savored.”
Our child. Your spouse. Relatives. Close friends. Your estate plan should provide for all the obvious beneficiaries.

But what about the heirs who are less apparent? What about, for example, the students of the University of Nevada, Las Vegas?

A growing number of people are including UNLV in their bequests. Clearly, they understand that they have both the privilege and the responsibility of assisting future generations of students. And they're using their estate plans as a vehicle.

A bequest to the University of Nevada, Las Vegas is a rare opportunity to make a life-transcending gift — one that will perpetuate your ideals, your hopes, your values.

By providing for UNLV in your estate plan, you can often make a much larger gift than would be possible during your lifetime. And that gift will have far-reaching ramifications, affirming UNLV's mission of education, touching the lives of students for years — even generations — to come.

Your bequest will literally form the bedrock of our programs, providing much needed dollars for faculty support, curriculum initiatives, and scholarships for our future leaders.

If you haven't yet made a bequest to the University of Nevada, Las Vegas, please consider it.

If you have already included a gift to UNLV as part of your estate plan, please let us know. We want to thank you now by including you in our UNLV Heritage Circle. The UNLV Heritage Circle is a special group of donors and friends who, through their planned gifts, will make a tremendous impact on UNLV's future.

If you're interested in making a provision for UNLV in your estate plan, you can call the UNLV Foundation at (702) 895-3641 and ask about Generations. It's our program to inform people about the benefits of charitable gift planning.

Ask for our free brochure on estate planning. We'll send you information about the numerous giving options as well as preferred bequest language for review by your lawyer.
Construction is underway on the university's new $8.25 million, 75,000-square-foot Architecture Building, which is expected to be completed in July 1997. The building, which will be located on the south side of the campus near the Houssels House, was designed by Swisher Hall Architects and is being built by Tibesar Construction. The rendering above shows its north elevation.