

# Shell scholarship winners at Wood River

About 750 Shell sons and daughters entered the competition, and two local high school seniors are among the fifty nation-wide winners of Shell Companies college scholarships recently announced.

They are Mike Buzan, son of Nelson Buzan, operations foreman in Lubricants; and Kristin Orr, daughter of Charles Orr, formerly of the Research Lab and now in Research Engineering at Head Office.

Mike and Kristin were chosen by the National Merit Scholarship Corporation based upon their performances on a comprehensive National Merit test taken during their junior years, as well as on evidence of leadership and citizenship. The Shell Companies Foundation Incorporated underwrites the four-year scholarships which range up to \$2,000 a year.

Mike Buzan will graduate this spring from Alton High School. He will use his Shell scholarship to study Engineer-

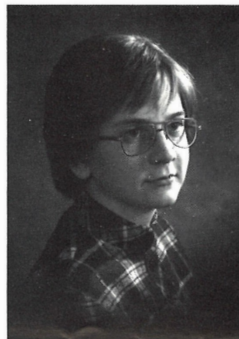
ing Physics at the University of Illinois at Champaign. Mike's activities have included: National Honor Society, Math Club, Math Team, and Science Club. He is also listed among the Who's Who in American High Schools.

Kristin Orr will officially graduate from Roxana High School at the spring commencement, but she actually completed all her requirements prior to her father's transfer to Houston. She is currently working part-time in Houston.

Although she hasn't made her final choice as to a college, Kristin will be majoring in Music. In addition to probable class Valedictorian and a member of the National Honor Society, Kristin's high school activities included: Quiz Team, German Club (executive board), and Calculus Club. She was also a senior acolyte, St. Andrew's Episcopal Church and played the oboe for the Alton Civic Orchestra.

Miss Orr was one of only 48 high school students chosen from several thousand applicants across the country to attend a summer program sponsored by the Telluride Association. Her discussion group of students and eminent experts concerned themselves with "environmental decision making".

Those Shell students who entered the competition last fall and are currently finishing their junior years in high school can watch for announcement of that class' scholarship winners during April 1977. Those who will begin their junior years next fall should be alert for entry information in September.



Kristin Orr  
Roxana High School



Mike Buzan  
Alton High School



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WOOD RIVER REFINERY

MAY, 1976

## Utilities gets to the heart of the matter

The following story spotlighting the Utilities Department is second in a series about various departments and crafts in the refinery.

Like in the human body, the Utilities Department is the "heart" of a refinery, pumping life-giving energy to its various working extremities. Utilities is the central producing and or monitoring place for refinery steam, electricity, water, air, nitrogen, and fuels used by utilities in generating steam. Its facilities also include environmental monitoring devices and controls over refinery effluent water systems.

Located quite properly in the heart of the refinery, the Utilities Department was one of the first areas to be completed when the refinery was built in 1917-18. Boiler House 2, built to succeed the original one, was erected in 1925, and still stands at Main Office Road and 10th Street.

Its original Heine boilers have since been retired, but with updated facilities inside, the massive structure continues to play an important role in refinery operations. Extensive modernization and upgrading of facilities have taken place throughout utilities in recent years. These are highlighted in this story.

About 60 people, including operators, supervisory people, and engineering and administrative support, work together to make Utilities -- and the refinery -- go. Maintenance personnel play an important part too.

### Heart 'o my heart

Over a period of several years Utilities has been modernizing and upgrading itself to better serve its refinery "customers". The heart of the heart is the Utilities Control Center (UCC). Completed in 1969, the UCC provided for the first time a central location from which to control all refinery utilities.

From this one location, operators can monitor and control the steam systems and the operation of Utilities' nine boilers, run the four 6000 kilowatt generators that serve as backup to purchased electricity, monitor the various water systems the refinery has, and control the refinery air and nitrogen systems.

Also at UCC are facilities for monitoring the use of purchased utilities and environmental conservation within the refinery. Work continues at the UCC to make it an even more effective focal point for Utilities' operations.

### Effluent

An important part of the Utilities Department's responsibilities includes operating the refinery effluent and storm water handling systems. Of particular importance is controlling the treatment of waters which result from the refining steps used at Wood River. The treatment scheme is recognized as being among the very best as measured by the quality of the water discharged to the river.

The system includes a series of separator boxes, aerators, chemical treatment settling ponds, and a biochemical trickle filter. Utilities personnel see to it that the water handling systems operate properly and continuously, rain or shine.

### Getting steamed

A big, new boiler (Boiler 17) has been put on line just southeast of Boiler House 2. This boiler is capable of generating a half million pounds of 600-pound pressure steam an hour ... 12 million pounds a day.

This is roughly twice the capacity of the refinery's next largest high pressure boilers. Yet, Boiler 17 is physically only slightly larger than these other boilers.



**WATER ADJUSTMENT.** Ernie Johnson, operator-1, makes an adjustment to the level of a fire water storage tank from the Utilities Control Center (UCC). The UCC is the central control point in Utilities.

A special design allows this new boiler to be very efficient, producing more steam while consuming less fuel per pound of steam generated. It is able to burn with a lower oxygen mix which minimizes the chemical formation of oxides -- an environmental plus, as well as a lower maintenance load.

### Soft as Charmin

Production of steam by Utilities' various boilers naturally requires water ... but not just any water. Impurities in boiler waters cause unwanted deposits not only in the boilers themselves, but also in downstream operating units. The greater the deposits the more often the hardware must be cleaned.

To preclude such problems, the boiler water is "treated" or "softened". The previous treatment system entailed a lime-caustic-phosphate combination manually fed, mixed,

and tested ... a system characterized by Utilities manager, Jack Szymanowski, as pretty unsophisticated.

About a year ago, the treating facilities were converted to lime-zeolite equipment with automatic controls and analytical instrument testing. This has resulted in considerably "cleaner" water and steam. The zeolite softeners reduce water hardness to less than one-half of one part per million. That's soft!

### Dry comments

The water treaters don't have a corner on the perfection market though -- the air dryers are also pretty impressive. More on that in a minute.

Air is used throughout the refinery to run instruments, for chemical and catalyst handling, product mixing, and as energy for pneumatic tools. The Utilities Department provides this air.

(See pg. 4)



Among those celebrating the seventh anniversary of the Safety Committee are these five who have been affiliated with the group since the beginning: (from left) Erv Keister, operator-1 in Dispatching; Emmitt Nelson, Maintenance superintendent; Bud Whittaker, operator-1 in Aromatics; Joe Berra, carpenter-1; and Harry Rollins, Safety manager.



**STRATEGY SESSION.** While waiting at the starting gate, dad whispers instructions on how the hunt is run.

## The Hunt!

Bang! They're off! It's over! The annual SRA Easter Egg Hunts at Kendall Hill are over almost that fast.

This year's event on April 10 was no exception. The beautifully warm and sunny weather brought a good turnout for the event.

As near as anyone could figure out, every child got at least something. Thanks again go out to the SRA volunteers who made this year's Hunt another success.

The hectic conditions under which any Easter Egg Hunt is run make it impossible to jot down the names of the children in the pictures. If your child is readily recognizable in any of these pictures, contact *Review* editor Bill Gibson and we'll try to see they get proper mention in a future issue.



**I FOUND ONE!** And with dispatch this youngster deposits his treasure in a just-for-the occasion basket.



**WHATCHA GOT?** Another happy hunter checks his basket of loot with mom. Not too bad ... and a prize too?



**AT FULL GALLOP** these two girls (twins?) take off in hot pursuit of the many sacks of candy and prizes scattered about the grounds.

## Rio Grande a second home for many Wood Riverites

The story in the April issue of the *Review* about travelin' retirees not unexpectedly prompted some responses, the first of which was from Charlie Gibson, area maintenance supervisor in Light Oil Processing.

Charlie and his wife, Vera, have been spending winter vacations in the Rio Grande Valley at the southern tip of Texas for years ... the McAllen area of Texas, to be exact. A number of Wood River area retirees also spend all or parts of their winters near McAllen, too, but Charlie for one didn't realize just how many until this year.

Charlie Beason, retired Alkylation foreman, was the catalyst for a party held on Friday, February 13, in McAllen that revealed just how popular the lower Rio Grande Valley is with Wood River area vacationers. There was no official guest list sent out ... invitations were by word of mouth only.

Including wives, 68 people showed up! All are retired except Mr. and Mrs. Gibson. Of the 68 attending 36 have Shell connections. In addition to the Gibson's and Charlie and Loeta Beason, other Shell party participants were:

Alvin and Ione Barr (boilermaker); Joe and Grace Brien (Safety manager); Ralph and Mary Davis (Aromatics foreman); Bob and Leona Dey (Distilling operator); Tommy and Adele Elder (refinery manager);

Hubert and Grace Hayes (fire chief - Safety); Wilber and Jessie Jenkins (Distilling operator); Harris and Helen May (security supervisor); Mike and Charlotta Mygatt (engineering supervisor); Jim and Helen Nelder (Distilling operator);

Clarence and Dot Priest (LOT operator); Frances and Alice Pullen (Utilities supervisor); Bob and Mary Smith (engineering foreman); Jim and Marjorie Thompson (engineering craft supervisor); Charles and Olive Welch (special tester); and Ray and Martha Waugh (Alky operator).

"We were surprised how many folks showed up," said Gibson. "Who knows how many others may not have gotten the word or couldn't make it that night?"

Charlie is high in his opinion of the McAllen area which is about 10 miles from the Mexican border and 60 miles north of Brownsville at the extreme tip of Texas. He said, "We've traveled all over the U.S. and this must be about the overall cheapest place to live ... and in the winter at least the weather is pure resort."

Those who have been to the lower Rio Grande Valley in the winter compare the weather to central or lower Florida, except less humidity. "I understand that even in the summer it's not too bad because of the low humidity and cooling breezes," says Gibson.

Golf is the main recreation

for visitors, but good fishing isn't all that far away. Neither is the Gulf of Mexico for that matter ... about an hour's drive. And there's always the nearby sight-seeing and bargains of Mexico.

According to the Charlie Gibson Guide to Rio Grande Golf (from memory, not published): "There's a number of very good courses in the area. Just take your pick ... the average 18-hole greens' fee is about \$2.50. If you're going to be there a while like the retirees, a couple can pick up an unlimited pass for four months at some of the courses for \$100."

Any plans for your own retirement, Charlie? "No comment. But we've already made

our vacation reservations there for next year.

"When we do retire, though, the Gibson's are going to take the O.G. Gilbert approach that you described in your story ... follow the good weather around the country in a mobile home."

Word has it the Gibson's

have already purchased a fancy new 31-foot Holiday Rambler and a big Ford pickup ... tested them both in Texas this last February as a matter of fact.

"They both worked out beautifully," says Charlie. "Beyond that ... no comment."

## Classified ads

**Two tires and rims.** Goodyear 7.75x14. Nylon cord, 4-ply. Very little wear. Chrysler 14x5J rims standard on many Chrysler product cars. \$25 takes all. Moss Armistead. 314-741-2210.

**Lawnmower.** 3.5 horsepower 4-cycle. Briggs. Like new. Only

three hours' use. \$40. Tom Colgate. 618-656-2315.

**Sportscar.** 1973 TR-6. White with black convertible top. Black interior. Tonneau cover. Four speed trans. Wire wheels. \$3900. Jack Cherry. 618-254-9304.

## In remembrance

**ERNEST ALBERT PAULDA,** March 8. Mr. Paulda was a pipefitter 1st before retiring in 1969. He was 71.

**GEORGE EDWIN RANEK,** March 22. Mr. Ranek was a special tester in the Refinery Lab and had worked at Wood

River since 1942. He was 56.

**RAYMOND A. SCHMITT,** March 29. Mr. Schmitt was a carpenter 1st before retiring in 1963. He was 66.

**WILLIAM WILSON STAGNER,** March 16. Mr.

Stagner was an operator 1st in Alkylation before retiring in 1966. He was 69.

**RAYMOND LEE WHITTEN,** March 25. Mr. Whitten was a pipefitter 1st before retiring in 1963. He was 69.



E. A. Paulda



G. E. Ranek



R. A. Schmitt



W. W. Stagner



R. L. Whitten

# Shell film shows history abounds around Wood River

The latest edition to Shell's expanding library of outstanding educational films is a 40-minute, 16mm color piece tracing the rise of man in the North American Continent. It's more than just another film for folks in the Wood River area, though, because major portions of the film draw their content and film footage from places within about an hour's drive of the refinery.

The film, titled *The Early Americans*, provides insights into the ways science helps reconstruct events that occurred as far back as the Ice Age. Local areas of note which provided support for the film are: The Koster Site northwest of

Pere Marquette State Park; Cahokia Mounds State Park between East St. Louis and Collinsville; the Busch Wildlife Area south of St. Charles, Missouri; and the Illinois State Museum in Springfield. Thumbnail sketches about each location are on this page.

*The Early Americans* takes over where award-winning Shell film *This Land* left off ... the latter taking the viewer from the formation of the Earth up to, but just short of, the advent of man.

In *The Early Americans*, paleogeographic maps show the forming of the Bering land bridge, which spanned the 54 miles between the tip of the

Barely out of the developing solution and already *The Early Americans* has won a prestigious film award. The British Academy of Film and Television Arts has recognized it as the best in its field for feature length documentaries.

Director Alan Pendry accepted the British counterpart to the American "Oscar" during the ceremonies in London March 17. W. E. Martin, Manager Films, Public Relations, represented Shell Oil at the presentations.

Seward Peninsula and the eastern edge of Siberia. This phenomenon occurred twice in the last 50,000 years and provided two long periods when animals and man could have wandered with ease into North America.

*Early Americans* provides dramatic explanation of contemporary evidence while peering over the shoulders of geologists, archeologists, and anthropologists as they search for long-buried clues. There are also dioramas from the nation's major museums of natural history showing Ice Age animals in their natural habitat, weapons and tools reflecting Stone Age technology, and dazzling works of art in

copper, mica, clay, and stone.

Through these findings, scientists have traced the rise of man from Ice Age wanderer to builder of complex societies more than 2,000 years before Columbus sailed for the New World. The film takes the viewer to prehistoric kill sites, remains of vast cities that once served as centers of trade and tribal power, and earthen burial mounds where the ancients interred their priestly leaders.

Both *This Land* and *The Early Americans* are at the refinery and available for free loan to anyone interested in them. Reservations can be made by contacting Mrs. Ruth Holliday on plant phone 240.

## Koster Archeological Site

About seven years ago some ancient Indian artifacts were found on the farm of Theodore Koster south of Eldred, Illinois, which sparked the interest of archeologists. They began digging in search for clues to the life style of these early Illinois inhabitants. Today, literally in Mr. Koster's backyard, it is the biggest and probably best preserved prehistoric Indian site in all of North America.

Thus far scientists have inched their way down some 35 feet through nearly 9,000 years of history and have found evidence of man living virtually on that same spot from time to time through that long period. During the summer months, you can observe teams of archeologists and students carefully combing the open site for further pieces of the past. There is no admission fee at the site which is about 20 miles north of Pere Marquette State Park.

A few miles west of the Koster Site at Kampsville, Illinois, are the headquarters for this archeological encounter. Much of this tiny village is dedicated to its effort ... 29 separate buildings playing some part. The area itself dates back well into the 1800's and many of the older buildings now serve as things ranging from dorms to labs to a museum.

The Kampsville Archeological Museum itself is a former meat market as is evidenced by the sign etched in stone over the front door. It houses the more significant Koster material as well as other historical items. Located on Illinois Highway 100 in Kampsville, the museum is open daily from June through October and at other times the remainder of the year. There is no admission charge.

## Busch Wildlife Area

Film makers of *The Early Americans* utilized the vast and wooded wilderness of the Busch Wildlife Area to show a re-enactment of an early Indian stalking and kill of deer. All this was done with the approval and careful guidance of the Missouri Conservation Department which runs the reserve.

The Busch Wildlife Area, which covers 7,000 acres, is located about 12 miles south of St. Charles, Missouri, on Highway 94. Within its boundaries are 40 lakes, the largest of which is 182 acres. The overall area is densely populated with trees.

It is open to the public year around, seven days a week, except Christmas Day. Depending on the season, hunting and fishing are permitted. The largest archery range in the country can be found at the Busch Area, and there is also a rifle range. Dog trials are among its special events.

There is no admission charge to this reserve, but boat rental is available at a modest cost. A central "lodge" is at the location where concessions may be purchased.



British artist Errol Bryant visited ancient sites to be depicted in his paintings for the film. Here he (left) discusses the authenticity of design for a prehistoric Indian village at the Koster site with Dr. Stuart Struever, anthropology professor at Northwestern and head of the Koster effort.

## Cahokia Mounds State Park

The Cahokia Mounds represent the highest achievement of prehistoric Indian civilization, and the only such Indian city north of Mexico. The site was first inhabited around 700 A.D. and abandoned for unknown reasons about 1500 A.D. Of the original 100 mounds, some 40 are presently preserved in the park.

Entirely earthen, the mounds were primarily for ceremonial activities of the living, and only a few were used for burial purposes. "Monks Mound", the largest at Cahokia, is the largest prehistoric earthen mound in the world. Its base covers 14 acres, and it rises in four terraces to a height of 100 feet. On the top once stood a massive building at least 105 feet long, 48 feet wide, and 50 feet high. One of the mounds served as a ceremonial and sacrificial burial ground, revealing hundreds of such interments and caches of precious items.

This 650-acre park on Highway 40 between East St. Louis and Collinsville is run by the Illinois State Department of Conservation. It is open daily from May through October, and Tuesday through Sunday the rest of the year. It is closed New Year's Day, Easter, Thanksgiving, and Christmas.

Guided tours can be arranged. There is no admission fee to the park, and tours are also free. There are several picnic areas with tables and park stoves. Three shelter houses, drinking water, and toilets are also available. A museum, where various aspects of prehistoric life at Cahokia are on display, is near the main entrance. Camping facilities are available in the park at modest cost.

## Illinois State Museum

Many members of the Illinois State Museum staff were directly involved in the preparation and filming of *The Early Americans*. The museum itself provided artifacts from its collection for the film, and some of its dioramas can be seen on the screen.

The Illinois State Museum will celebrate its 100th birthday in 1977, such a part of Illinois history it is itself. The modern multistoried building which currently houses the exhibits was built in 1963. It is located in "government square" in Springfield, just half a block from the state capitol building. The exact location is at the corner of Spring and Edwards Streets.

It is both a natural history museum and an art museum. Exhibits tell the story and display the arts and crafts of early Illinois ... both of the Indians and the later settlers. Lifelike dioramas of Indian Villages and of Illinois Wildlife make the viewer feel a part of the scene.

In fact, currently under construction is a huge diorama that viewers actually step into and walk through ... the latest innovation in museum presentations. Also on exhibit are outstanding displays of rocks, minerals, and fossils, as well as rotating exhibits of the current art of Illinois.

The museum is open Monday through Saturday from 8:30 am to 5:00 pm and on Sunday from 1:30 pm to 5:00 pm. It is closed New Year's Day, Easter, Thanksgiving, and Christmas. There is no admission fee. A wide variety of guided tours can be arranged.



Man hunts mighty beast by using his cunning and increasingly effective weapons. Detailed paintings such as this one and others were done for the film by British artist, Errol Bryant (photo at left).

# Anniversaries



**D. W. Gurley**  
Distilling  
40 Years



**Al Losch**  
Dispatching  
40 Years



**Doc Linn**  
Safety  
35 Years



**Jean Pile**  
Dispatching  
35 Years



**Ben Wohler**  
Lubricants  
35 Years



**Vern Fillingim**  
Cracking  
30 years



**Charlie Foster**  
Compounding  
30 years



**Doris Jilek**  
Eng. Office  
30 Years



**Leo Kunz**  
Refinery Lab  
30 Years



**John McCleish**  
Eng. Services  
30 Years



**Fred Orr**  
E & S  
30 Years



**Ferd Welse**  
Eng. Office  
30 Years



**Charlie Brown**  
Maintenance  
25 years



**Paul Burkhart**  
Aromatics  
25 Years



**D. M. Chappell**  
Lub. D&D  
25 Years



**Lyn Clark**  
Lubricants  
25 Years



**Ed Knecht**  
Maintenance  
25 Years



**R. A. Lewis**  
Aromatics  
25 Years



**Leo Spiller**  
Maintenance  
25 Years

## Utilities Department keeps up the refinery "heartbeat"

(From page one ...)

Before it can be sent around the refinery, the air (at 100 pound pressure) must be dried. Moisture in this air reduces the reliability of instruments and increases

maintenance needs ... so the drier the air the better, on two counts.

### Applying pressure

In Utilities there's a system consisting of two new 5000 cubic feet per minute (cfm) compressors and a 10,000 cfm

air dryer. There is another air dryer in the Gas Department, but Utilities is responsible for the overall system.

As mentioned, it's important that this air be kept dry, but it's also important that the pressure be kept constant and

high enough to make efficient use of the many air driven tools used by Maintenance personnel.

But back to the dryness. How dry is dry? The air drying equipment reduces the dew point of refinery air to

minus 40°F. That's equivalent to a relative humidity of one-half of one percent at 75°F ... or three-one hundredths of one percent at 90°F.

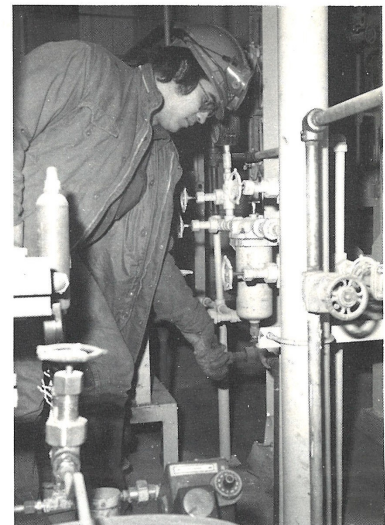
And ... couldn't we use a little of that low humidity in our summer weather around here?



Virtually all of Utilities' activities can in some way be controlled or monitored from the Utilities Control Center. Here, Lennie Condellone, foreman, (left) makes sure boiler stacks aren't smoking by monitoring a closed circuit TV while operator-1 Jim Mussatto makes an adjustment to one of the boilers.



Analyzing the analytical testing equipment at the chemical blending facility in the water plant (whew!) are Novie Novitskie, senior engineer in Utilities, and Jack Szymanowski, manager of the Utilities Department.



George Machino, operator-1, prepares to bleed a filter in the chemical building at the water treatment facility.



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Bill Gibson, editor

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