

the Bulletin Board

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VISITORS to BNL

On Friday, July 7, a group of graduate students in physics at Columbia University visited BNL. They were given a general tour of the Laboratory.

A group of high school teachers of physics and chemistry participating in a National Science Foundation program at City College of New York will visit Brookhaven on Thursday, July 13.

BNL SAFETY RECORD

52 Days Since Last Disabling Injury
(May 19 - July 9th)

BERA FILM SERIES

This week's film presentation will be *UNDER THE BLACK MASK* and *THE MISCHIEF MAKERS*. The program will begin at 8:30 p.m. in the Lecture Hall on Thursday, July 13. Admission - 90¢ for adults, 50¢ for high school students.

When *UNDER THE BLACK MASK* was awarded The Grand Prize at The First International Art Films Festival at Bergamo, Italy, it received a special citation from the judges for its ethnographic value, its superior insight and critical perception, and its "powerful and original cinematographic realization."

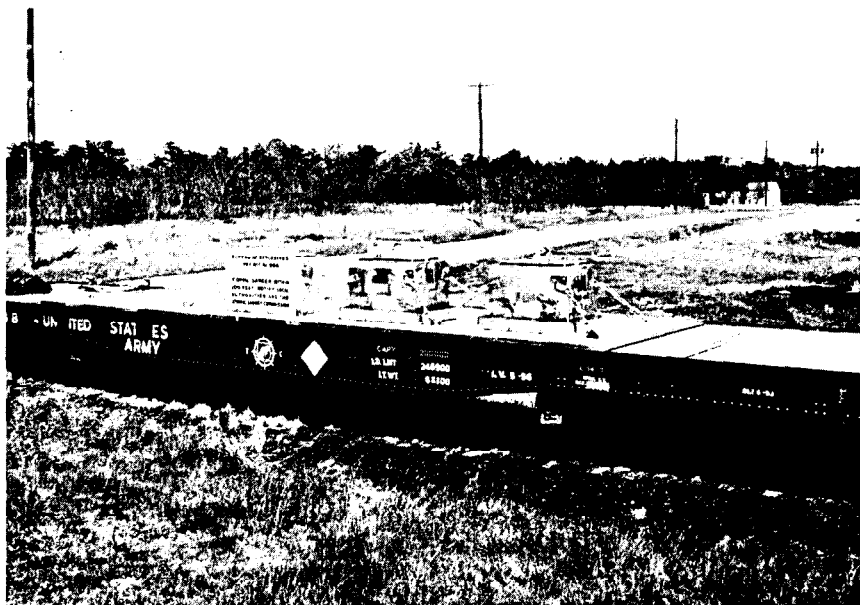
The film examines in detail various aspects of Congolese art: the Ba-Kuka, Ba-Mbala, Bena Lulua, and Ba-Yaka, reflecting the spirit and life of the black man of the Congo. These works of art are seen in the natural frame of native life, while authentic African music enhances their interest. It is a film of Congolese origin written and directed by Paul Haesaerts.

THE MISCHIEF MAKERS, directed by Francois Truffaut, is a longer-than-usual short story about youth and discovery, set in a small town in Southern France. It is a visual awakening of the sensuality, the innocent malice, the unpredictable jealousy, and the unknown desire of adolescence. A gang of boys (the "mischief makers") follow and spy upon two young lovers, persecuting them by denouncing them on all the walls of the town.

THEATRE GROUP READING

Thursday, July 13
Ginny and Ed Sayre's House

ODYSSEY TO IDAHO



Flatcar with initial load in transport casks.

The first shipment of enriched reactor fuel from BNL to the National Reactor Testing Station near Idaho Falls, Idaho, has recently been completed. The fuel elements were carried on a specially modified flatcar on permanent loan to BNL by the Department of Defense. This flatcar will be used regularly in the future for trips to Idaho Falls.

The fuel elements involved in the shipment had been used in the Brookhaven Graphite Research Reactor. Originally this reactor used natural uranium as fuel. The spent natural uranium fuel elements were shipped by truck to the Oak Ridge National Laboratory in Tennessee for reprocessing.

Conversion of the BGRR to the use of enriched uranium was started in January 1957, and completed in April 1958. The fuel elements are considered spent after 40% of the atoms have been fissioned. This takes a minimum of two years in the Reactor. As they have been removed from the Reactor, the fuel elements have been stored at BNL pending completion of arrangements for reprocessing, and modification of the flatcar. At the present time there is quite a sizable backlog here at BNL, since the Reactor has used enriched uranium exclusively for over three years, and last month's trip was the first shipment. The Chemical Processing Plant (operated by the Phillips Petroleum Company under contract with the AEC) at the National Reactor Testing Station is one of the few places equipped to reprocess enriched fuel.

When fuel elements are removed from the Reactor, they are put into the 20-foot deep pit of the canal in the Reactor Building until the radiation level is low enough to allow safe handling in the 8-foot deep portion of the canal. The activity of the fuel elements is between 80,000 and 100,000 r/hr at three inches when they come out of the Reactor and they are stored until the activity declines to approximately one-tenth of these values.

(Continued on next page)

Odyssey to Idaho - Continued

The flatcar used for the trip was modified at BNL so that it would hold four lead pigs, which were specially designed to hold the fuel elements. The pigs, more formally known as casks, weight 7½ tons each and have 8-inch lead walls. This shielding reduces radiation levels to safe values, below those required by I.C.C. regulations. Each of the pigs, which were designed and built at BNL, can hold 54 fuel elements. This represents a shipping weight of 72 pounds.

The casks are loaded under water in the canal next to the Reactor. They are then removed and washed to remove surface contamination. The casks are transported on a low-bed trailer from the Reactor to the railroad siding, and are loaded onto the flatcar with the 40-ton mobile crane belonging to the Plant Maintenance Division. During shipment, the pigs are covered by tailored tarpaulins.

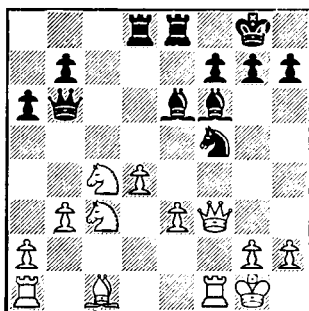
The shipping project got under way at a meeting held in New York City in December 1959. At this meeting were representatives of the New York AEC Operations Staff, and AEC members from Washington; the Bureau of Explosives of the Association of American Railroads; and members of BNL's Supply and Materiel, Reactor, and Health Physics Divisions. Requirements regarding cask design, allowable radiation levels, freight rate negotiations, and method of shipment were discussed and resolved. Since then all phases of the project have required close co-ordination between the BNL groups concerned and the Bureau of Explosives.

The loaded flatcar left BNL on its maiden voyage on May 27 and arrived on June 5 in Scoville, Idaho, where a Phillips Petroleum switch engine picked it up for the short trip to the processing plant. The car had traveled on the Long Island Railroad to New York City, the Pennsylvania Railroad to Chicago, the Chicago & Northwestern to Council Bluffs, and from there, the Union Pacific to Scoville, a journey totaling 2500 miles.

After their activity has receded still further, the fuel elements will be re-processed, probably at the end of the year. The "unburnt" uranium must be extracted from the fission products and reworked into metal.

On the first trip, only three pigs were filled with elements, but in the future it is planned to use all four of the pigs. It is planned to make shipments approximately once a month for several years. Since there is a substantial backlog of spent fuel elements at BNL at the present time, it will take some time to reduce this inventory. Once the backlog has been taken care of, shipments will be somewhat less frequent, approximately every one and a half months.

CHESS PROBLEM



In this week's problem it is black's move. Black is one pawn behind and his queen is under attack. Answer elsewhere in this week's BULLETIN BOARD.

WEDNESDAY DANCES

This Wednesday evening, July 12, we will inaugurate a series of weekly dances that will run through July and August.

The dances will be held at the Recreation Building in the Apartment Area from 9 p.m. to 12 midnight. Live music will be provided by Frank Campbell's 3-piece combo.

Dress is casual and refreshments will be available. If you are musically talented, the band will be happy to have you join them.

ADMISSION 50¢

Your attendance will be our guide in determining the continuance of this activity throughout the summer.

THEATRE GROUP NEWS

On June 28, the following people were elected as officers of the Theatre Group:

President	JERRY SADOFSKY
Vice President	CARL GOODZEIT
Secretary	VAL HUGHES
Chairman of Theatre Committee	ED NIELSEN
Chairman of Advisory Committee	CLIFF SWARTZ
Chairman of Program Committee	Ginny Sayre

If you are interested in being considered an active member of the Theatre Group, please send your name, extension, and address to Val Hughes, Secretary, at the Personnel Office, 58 Brookhaven. If we do not hear from you, we shall assume you are no longer interested in the organization. Thank you.

Theatre Group Reading

UNDER MILKWOOD will be read on Thursday, July 13, at 8:00 p.m. at the Sayre's house. Since the play is short, we shall also listen to the recording by Dylan Thomas. Refreshments will be served.

Directions: Brookhaven - turn South on Old Barto Road which is just west of the traffic light at the new Yaphank Avenue - Montauk Highway light. Drive straight south one mile (ignore roads to right). Good luck and we are looking forward to seeing you.

ITSY BITSY TEENY WEENY

YELLOW POLKA DOT BIKINI

Is that what you're wearing? All right - so that's not your choice - but whatever type bathing suit you wear, enter the Bathing Beauty Contest to be held at the annual picnic on July 29. Time is running out - don't wait - enter now!

Fill out the application below and submit it to G. Sabine, Recreation, as soon as possible.

Who will be "Miss BNL 1961"?

Application for Miss BNL 1961

Name of Applicant

Department

Sponsor (if any)

Title of Applicant

Signature of Applicant

Send Application to G. Sabine, Recreation

BNL SLO-BALL**National League****MONDAY**

Metallurgy 13 Pop-Ups 2

The metalmen had good fielding, good hitting, and excellent pitching. That's all you need to win. Metallurgy had the first triple play of the year.

WEDNESDAY

Phoubars 18 Gnats 2

Phoubars continue to get those base hits especially for Cantwell who has been a Roger Maris of late.

THURSDAY

Old Timers 8 Dirty Sox 3

Old men had a tighter defense and a little more hit. Second triple play of the year.

Standings

TEAM	WON	LOST
Phoubars	7	2
Metallurgy	6	2
Old Timers	7	3
Cosmotron	5	3
Dirty Sox	4	4
Pop Ups	3	5
Gnats	1	8

Brookhaven League**Standings**

(Including week of July 3rd.)

TEAM	WON	LOST
Biology	6	2
Medical	5	3
Untouchables	5	5
Potsareebies	5	5
Electronics	3	5
Health Physics	2	6
E.O.A.	1	7

JUNE FISHERMEN

A 2 lb. 14 oz. brook trout was top fish for June (319 points) - caught by Dick Emanovsky of Biology. Second was a 6 lb. 5 oz. blue (316 points) caught by Ravenhall of the Applied Math Division.

The National Industrial Recreation Association has a contest for which BNL employees are eligible. Details are available at the Recreation Office or from fishing committee members.

TENNIS TOURNAMENT

The 1961 BNL Tennis Tournament will get under way the week of July 17th. Entries are now being accepted at the Recreation Office for men's singles, ladies' singles, doubles, and mixed doubles if enough entries are sent in.

A fee of 50¢ must accompany each entry and the deadline for entries is July 13. Applications and information - Recreation Office.

I'M A TRAVELIN' MAN

But I'm not traveling on Saturday, July 29, from 1 p.m. until 9 p.m. I'm going to the BERA-sponsored Operation Get-Together No. 4 on-site and have myself a ball. With all the activities planned, the music, food, games and contests, who wants to travel? I'm looking forward to a day of relaxation, recreation and refreshments. Where else can anyone get so much for so little? (And bathing beauties besides!)

I've been doing a little painting in my spare time, and I might just walk off with first prize in the Crazy Painting Contest - submit your painting at the gym starting July 26.

Ticket sales have started - ticket sellers are in every department. Don't miss out on all the fun. Buy your tickets early! \$1.50 each for adults; \$.25 for children (under 18); infants free.

Remember tickets are **not transferrable!** Employees and immediate family members only. No guests.

Ticket sales end **July 21.**

BRIDGE RESULTS

The first bi-weekly duplicate bridge game was held Thursday night at the Recreation Hall. An enjoyable time was had by all, especially those who had only played rubber bridge previously.

The Results:**E - W**

1. Sid Mitchell - Hazel Williams
2. Harold Schwartz - G. Czapski
3. Mr. and Mrs. Bob Dvorak

N - S

- 1-2. Ed Ashare - John Sears
- 1-2. Shelly Frei - Abe Arnold
3. Mr. and Mrs. Joe Forest

Next game is Thursday, July 20 at 8 p.m. Master points will be awarded.

SMALL BORE RIFLE TOURNAMENT

Al Lukas again took top honors with 217 out of 250. Judd Diener was pressing close on his heels with 215 and Peter Weiss was third with 186. Matches every Thursday, on site, at 5:30 p.m.

**MOMENTS**

Where will they stick the billboards when we're all traveling in outer space?

CLASSIFIED ADS

FOR SALE

1949 FORD - 2 dr. sedan; 81,000 miles; good running condition. Orig. owner. \$70 or offer. E. Schwinghamer, Ext. 2259.

1954 FORD - Crestline sedan, V-8 with Fordomatic. Fully equipped. A very clean car in excell. mechanical condition, \$375. Gene Rogers, Ext. 481 or SH 4-3945.

1957 MGA - Red w. black inter, wire wheels. 2 tops, new tires, 34,000 mi. Excell. condi. A real cream puff. \$1250 firm. SH-4-3356 after 6.

1940 DODGE - running cond., recently inspected. Good, inexpensive local transportation. Ext. 773.

1951 PLYMOUTH - 4 dr., excell. cond., new tires, \$150. Ext. 541.

1949 CHEVY - 4 dr. sedan. New paint, exceptionally clean throughout. 1961 inspected. \$95. Ext. 2325

1954 FORD - 4 dr. sedan, V-8, stand. shift, new tires, good mech. cond., clean inter. \$250. Avail. mid-Aug. Ext. 345, or GR 5-4532 evenings.

1952 HILLMAN - \$99.50. J. Walsh, Ext. 454. TIRES - 2 General nylon, only used 400 miles, 670-15. Wheels, hubs, tubes, tires - all for \$30. GR 5-1349.

HOUSE - Brookhaven, 3 bedrm., ranch type. 2-car garage, full basement, nice loc. For sale or rent, Sept. 1. Rent reasonable. AT 6-1119.

HOUSE - E. Patchogue. Brick, 3 bedrms., lg. closets, lg. liv. rm. w. fireplace, din. rm., mod. kitchen. Finished basement rm., 30' garage. Lot 100x125. Excell. lawn and landscaping. No through traffic, near school \$18,500. Shapiro, Ext. 397 or AT 6-8911.

HOUSE - Small development, Port Jefferson. Split level, 1/2 acre wooded lot. 3 bedrms, family rm, attached garage, 1 1/2 baths. \$17,500. HR 3-9276.

HOUSE - 7 room split level on 1/2 acre wooded lot, private beach rights, 3 bedrms, 1 1/2 baths, laundry, lg. liv. rm, plus 26' rec. rm, fireplace, landscaped. SH 4-9877 evenings.

1959 MOBILE HOME - Marlette, front living rm, 50'x10', 2 bedrms, many extras. Reasonable price for quick sale. PA 7-3189 after 6.

1959 MOBILE Home - Liberty Spence Craft, 45'x10', front kit., 2 bedrms. Goscinski, Ext. 2373 or WA 9-4647 after 6.

RANCH HOUSE - Brick, 3-bedroom, 2-car garage, fireplace, patio, oil-hot water heat, many extras. 6 yrs. old. E. Patchogue. Ext. 2188 or AT 6-8712.

14 FT. WOLVERINE - Steering controls, fiberglassed, 25 h.p. Evinrude, 6 gal. gas tank. \$350. In water, rarin' to go! C. Brunone, Ext. 574 or AT 1-9411 after 6.

17 FT. THOMPSON 1960 - 50 h.p. Evinrude 1959 (new), battery and box, steering, lts, 2 gas tanks, compass, cust. seat cushions, full canvas mooring cover. Also, deep water mooring equip.(I'll deliver.) Fedrich, SH 4-3926.

12 FT. THOMPSON - and 7.5 h.p. Scott Atwater, \$125. R. Clark, HR 3-3807.

EVINRUDE OUTBOARD MOTOR - 4 cylinder, 5 1/2 h.p. Will sell for \$40 or trade for 1-1 1/2 h.p. outboard. D. Stephani, Ext. 542.

JOHNSON OUTBOARD - 10 h.p., 1959. Top condition. \$175. J. Semkus, Ext. 566.

SNIPE SAILBOAT - \$200. J. Walsh, Ext. 454.

1960 AUXILIARY YAWL - Must sell, 30', ss, dacs, full head rm. Sleeps 6 in 3 compart. Fast, roomy boat. Fibreglass over wood, little brightwork. Any reasonable offer or trade for smaller boat. Ext. 2324 or HR 3-9266.

OUTBOARD MOTOR - 4.2 hp, Champion, almost new, will demonstrate. \$65. Ext. 353.

MOVIE CAMERA - 8 mm., Revere CAP, magazine, electric eye, auto. exposure setting, Wollensak zoom lens, wide, normal, and telephoto. 2 yrs old, little used. Also have Revere projector. J. Jost, Ext. 363.

TELESCOPE - 60 mm. refractor, tripod, case, etc. 4 eyepieces, 40-115 power. Best offer over \$50. J. Faust, Ext. 2255.

SOFA - 3 cushion, and 2 overstuffed chairs, unmatched. E. Church, Beaverdam Road, Brookhaven, AT 6-0339.

MISC. - Chest of 4 drawers, \$10; 4 dr. file cabinet, \$10; garden chaise, \$10; GE vacuum cleaner, recently overhauled, very good cond., \$15; heavy redwood 6 ft picnic table and 2 benches, \$15. Shapiro, Ext. 397 or AT 6-8911.

MISC. - Sofa-bed, folds flat; rocker, overstuffed, maple and brass; dining table, formica top, 6 tubular steel chairs; maple crib; 10 in. TV; kitchen table; child's table and 2 alum. chairs. Large assortment of furniture. Brewbaker, YA 4-3719.

USED TV - RCA, 21", \$40. Ext.345 or GR 5-4532 evenings.

REFRIGERATOR - Frigidaire, 9 cu. ft., very good cond. S. Jungreis, EM 3-7032.

REFRIGERATOR - Kelvinator, 9.5 cu ft., 40 lb. freezer, 1 yr. old, excell. cond. Also, venetian blinds, 36" wide, white, plastic and metal. K. Fuchel, Ext. 409.

2 WASHING MACHINES - 1 automatic, 1 manual with portable laundry tubs; ping pong table; daveno, rollaway bed; chrome kitchen set, other furn. items; baby carr., play pen; automatic deep fryer; misc. items. Reasonable. AT 6-1119.

CHAISE LOUNGE - good cond., \$35. Margaret Greene, Ext. 779 or AT 6-0237 after 5:30.

20" BOY'S BICYCLE - fair cond.; folding bed; double chest of drawers. C.T.O. Fong, Ext. 301-26.

BABY CARRIAGE - sturdy, lightweight, folding, converts to car bed, extras, practically new, \$20. T. Morris, Ext. 739 or SH 4-5096.

CRIB AND MATTRESS - crib sheets, spread; \$20 for all. Also, GE automatic washer, 5 yrs. old, needs pump repair, \$10. A. Francois, Ext. 470, or EM 3-6527 evenings.

VARMENT RIFLE - Savage Mod. 340-B, .222 Rem. Cal. W/Weaver Mounts. Excell. cond., \$50. HRO-M Amateur Receiver, completely

rebuilt and refinished, one set coils (JB-7-14 Mc.), noise limiter added, \$50. 6 Meter Transceiver, complete except for converter, built around BC-946 (.540-1500 kc), make offer. P. Buhl, Ext. 354.

PUPPIES - German Shepherd, AKC, black and tan, available mid-July Reasonable. Can be seen by appointment. JU 1-3801 (East Islip)

FOR RENT

APARTMENT - Unfurnished, Bell. vill., 3 rm. \$110. incl. util. AT 6-1172.

WANTED

MORE TELEPHONE CALLS - from people wishing to volunteer their services (ushers, guides, safety watchers, servers, etc.) for Operation Get-Together No. 4. Blanche Laskee, Ext. 798.

PIANO - will trade almost new G.E. Press & Steam laundry room iron machine (Lists for \$240. JU 5-8322.

SMALL CARGO TRAILER - 4'x6' or 4'x4'. Also top carrier for station wagon, 36"x72" or 42"x72". C.T.O. Fong, Ext. 301-26.

UTILITY TRAILER - 1/4-1/2 ton capacity, must be in good cond. C. Distenfeld, Ext. 2308.

CAR - in good order for approx. \$300. Dr. Clode, Ext. 301-1.

GIRL'S BICYCLE - Summer student would like to purchase inexpensive girl's bike. Wen Shi Yu, Ext. 2524.

CELLIST - to complete string quartet. AT 6-0147.

LOST

Frank Miles would appreciate having his copy of Nuclear Science and Engineering returned to him. (Vol. 8, No. 4) Bldg. 815.

Boy's brown and white reversible jacket. Size 12-14. Judy, Ext. 2144.

CAR POOLS

Drivers wanted: N. Blue Point and N.E. Patchogue. C. Bedell, Ext. 2191.

Ride wanted from Potter St. & Grove Ave., S. Patchogue. R. Baldwin, AT 9-1568.

Would like to join or form car pool from Centereach. R. Bowman, Ext. 772.

Ride wanted from Ridge School, Ridge. Charlotte Knoblauch, Ext. 2107.

Ride wanted from Main St. & Railroad Ave., Sayville. J. Palmer, Ext. 639.

Ride wanted from Colony Dr. & Mantauk Highway, or from Brook St & Colony Dr., W. Sayville. D. Zelem, Ext. 639.

Ride wanted from vicinity of Division St., Patchogue. Susan Palermo, Ext. 333.

Rides offered to N.Y.C. this weekend and most other weekends. Leave Friday, 5:15, return Sunday night. D. Merrill, Ext.. 648.

ANSWER TO CHESS PROBLEM

Black wins by . . .

WHITE

1.
2. P x N

BLACK

- B x N
N x QP . . . etc.