

# the Bulletin Board

VOLUME 15, NUMBER 11

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NOVEMBER 21, 1961

## SILK-SCREEN PRINTING LECTURE-DEMONSTRATION

The Art of Silk-Screen Printing  
A Lecture-Demonstration  
by DR. R.C. ANDERSON

Wednesday, November 29, 1961  
8:30 - 10:00 p.m.

## VISITORS FROM JAPAN

Today, November 21, five visitors from the House of Representatives of the Japanese Diet toured the Lab's Medical Research Center. The group are members of the legislative body's Special Committee for Science and Technology.

## CAUTION — HITCHHIKERS

A Laboratory employee who picked up a hitchhiker last week on William Floyd Parkway a short distance south of the traffic light was held up by the hitchhiker and robbed at gun-point of his car and money. The car was recovered two days later. Beware!

## MICROMET SALES

Orders for Micromet, accompanied by full payment, are now being taken at the Personnel Office, 58 Brookhaven Avenue. No orders will be accepted after Friday, December 8.

## FALLOUT SURVIVAL INFORMATION

To receive Civil Defense information on Nuclear Fallout Survival, complete this coupon and mail to C. Distenfeld, Building 901.

NAME .....

BUILDING NO. ....

## BNL NEWSFLASHES

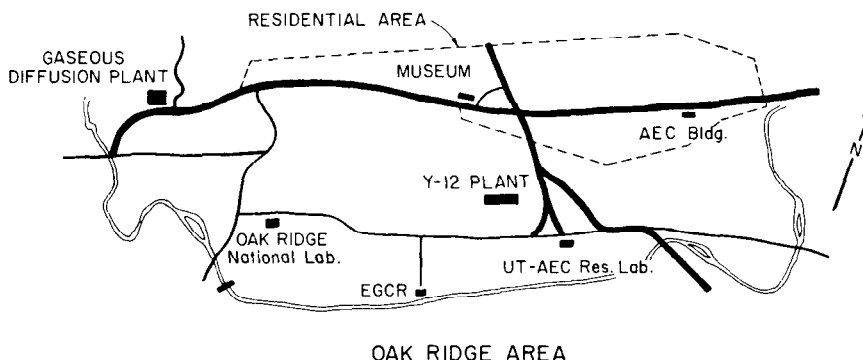
WORK ON additional quarters for the Fiscal Division is currently underway. Last week, a section of a former Medical Department ward building was moved to 37 Brookhaven Avenue adjacent to the Fiscal building and is now being converted into offices for the Division.

BNL's A.G.S. went back into operation last Thursday after an 8-week shutdown. Operation had been suspended in order to set up equipment and move shielding for several new experiments.

## THE OAK RIDGE AREA

In the year following the United States' entry into World War II, it became apparent that the country's intensive wartime atomic development effort required a gigantic installation that would provide large-scale engineering realization of the laboratory achievements of several university nuclear research groups. In November 1942, construction on the installation began. Its site: the remote section in eastern Tennessee that was later named Oak Ridge.

Today, Oak Ridge is the world's oldest and largest atomic center. The Oak Ridge Area is a complex of AEC offices and installations. Among them is Oak Ridge National Laboratory (ORNL) which, as one of BNL's sister National Laboratories, will be the subject of next week's BULLETIN BOARD article. As a background for it, this report will outline briefly the several other AEC activities also based at Oak Ridge.



AEC offices and installations at Oak Ridge are of two types: those carrying out the functions of the Commission itself; and those that are operating facilities administered by outside organizations under contract to the AEC.

In the first category are the AEC Oak Ridge Operations Office and two extensions of AEC Headquarters divisions. The extensions have AEC-wide functions. The Declassification Branch of the Division of Classification is chiefly concerned with reviewing documents, photographs and drawings for possible declassification. The Division of Technical Information Extension carries on a major portion of the AEC's technical information program and maintains its central repository of research and development information. The Extension also publishes "Nuclear Science Abstracts," the only abstract journal in the nuclear field.

The third member of the group, the Oak Ridge Operations Office, was formally established in September 1947. During the war years and until 1947, the U.S. atomic effort was directed by the Army's now-famous Manhattan Engineer District, headquartered at Oak Ridge. When the new Atomic Energy Commission replaced the Army as directing agency and established headquarters in Washington in 1947, Oak Ridge became a major field office of the

(Continued on Page 3)

THANKSGIVING HOLIDAYS — THURSDAY AND FRIDAY, NOVEMBER 23 AND 24

## ELEVENTH BROOKHAVEN LECTURE

	Families	Particles	Anti-Particles	Spin	Mean Mass
BARYONS	$\Xi$ HYPERON	$\Xi^-$ $\Xi^0$		F	2578
	$\Sigma$ HYPERON	$\Sigma^+$ $\Sigma^-$ $\Sigma^0$ $\Sigma^+$ $\Sigma^-$ $\Sigma^0$		$\frac{1}{2}$	2330
	$\Lambda$ HYPERON	$\Lambda^0$ $\Lambda^0$		$\frac{1}{2}$	2182
	NUCLEON	p n $\bar{p}$ $\bar{n}$		$\frac{1}{2}$	1837.4
MESONS	K-MESON	$K^+$ $K^0$ $\bar{K}^0$ $K^-$		0	970
	PION	$\pi^+$ $\pi^0$ $\pi^-$		0	268.7
LEPTONS	MUON	$\mu^-$ $\mu^+$		$\frac{1}{2}$	206.7
	ELECTRON	$e^-$ $e^+$		$\frac{1}{2}$	1
	NEUTRINO	$\nu$ $\bar{\nu}$		$\frac{1}{2}$	0
	PHOTON	$\gamma$		1	0

The Eleventh Brookhaven Lecture, entitled "Fundamental Particles," was given by Dr. Maurice Goldhaber, Director, on Wednesday, November 15.

In order to be able to give a comprehensive survey of the many new particles that have been discovered in recent years, Dr. Goldhaber used a novel device – a magnetic board. Symbols identifying the various particles and numbers identifying their spins and their masses were painted on small boards provided with magnets; these boards were attached in their proper places on a large board as the lecture proceeded. The photograph above shows the appearance of the large board at the end of the lecture.

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**THANKSGIVING HOLIDAYS — THURSDAY AND FRIDAY, NOVEMBER 23 AND 24**

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### DANCE — BAND — A HIT!

Thanks to the Bubble Chamber Group, 300 attendees at the BERA Thanksgiving Dance went away at 2:00 a.m. last Saturday well satisfied and thoroughly entertained.

The door prize, a hugh white turkey (which, incidentally, was still alive), went to the welcoming arms of Mrs. Jack Sondericker. The Twist contest prize was captured with no little effort by Mr. and Mrs. G. Davis. Gerry was immediately drafted by the audience to breathlessly render a vocal, "Bill Bailey," which he did exceptionally well.

Herman Stenzler's Band proved to be a tremendous success. Both he and his wife sang as well as played the entire evening. Their entertaining songs and varied musical sets kept everyone dancing until 2 a.m., when the Band was given a standing ovation by the party-goers. Alf Christoffersen, President of the BERA Board, publicly thanked the Bubble Chamber Group for their committee work, which was responsible for making the dance a reality and a success.

This was BERA's first attempt at having a seasonal dance presented by a department. What does this mean? Well, it means that the department supplied the committee to plan the affair, handle the publicity and decorate and set up the Gym. It is hoped other departments will volunteer to present future dances on behalf of BERA. If the idea works, we should have no more "lack of committee" problems, more dances and better dances.

Special thanks go to committee chairmen D. David and C. Spiro and a Gold Star to the BUBBLE CHAMBER GROUP!

### NOW LET'S SEE WHAT BNL ARTISTS ARE DOING

Our annual exhibit of the works of contemporary professional artists of the New York City-Long Island area has just closed after a week in which it stimulated much interest and discussion. More than 500 people signed the registration book at the exhibit – and undoubtedly there were more visitors who did not stop to sign in.

Many people feel that there would be equally as much interest in an exhibit of the artistic work of BNL's own employees and their families. Therefore, as was announced in an earlier BULLETIN BOARD, such a show is being planned for early February, 1962.

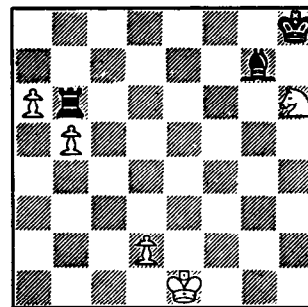
Brookhaven artists range from active professionals through dedicated amateurs to interested dilettantes who occasionally like to try their hands at creating something of artistic merit. All these artists are urged to exhibit at the show. All types of hand-created art – paintings in various media, sculpture, ceramics, etc. – will be shown.

The number of pieces of any one person's work will have to be limited, of course, but we will not know how severely until an actual tally of the interest exhibitors is made. This registration will be undertaken in January. NOW is the time to be creating some good pieces for exhibit.

### CHESS PROBLEM

This week's problem is an end game, and if you moved carefully, White could win. Playing with White, could you Queen your Pawn? Answer elsewhere in this week's BULLETIN BOARD.

White wins



It's a long way to go.

### FISHING CONTEST

Nick Sowiak came through again this month. Surf casting at Moriches Inlet, he caught a fisherman's dream – a 12 pound, 11 ounce fluke.

Remember the contest closes this month, so send in your applications.

**CAMERA CLUB MEETING**

There will be a meeting of the Camera Club on November 29 at 8:00 p.m. in the small meeting room in Building 317. It is important that all members be present, since officers will be elected and important business discussed. Henceforth, dues will be collected only at Club meetings. A new membership list will be prepared and will be effective December 1 for darkroom admittance.

All members are requested to bring samples of their work – color or black-and-white – for a general showing, no competition. New members and visitors are welcome.

**CHILDREN'S SWIM CLASS**

The children's swim class will NOT meet this Friday, November 24.

**BERA BOWLING****GREEN LEAGUE**

The Green League has been rolling along and bunching up together. Only 5 points separate the first and last place teams.

The Fire Department split with the Gnats and fell back a few pegs. For the former, Texiera and Rhodes led with 191/596 and 204/554, respectively. Wilson of the Gnats bowled a 187/513.

The Old Timers I have finally come alive, winning over the Old Timers II 4-0. Adams rolled 191/530, Sylvester, 189/504, Reams, 205/502, and Potter, 223.

The Reefers came up with a new high team gross series of 3039 to win over the Old Timers III by 3-1. Bruno came up with 199, Scandizzo, 192, and, as usual, Lucas 192/220/591 for the Reefers.

The Black Birds lost to the Electrons 4-0, putting the Electrons in top spot. For the winners, Tomesch and Cobb rolled 200/523 and 188/522.

**PINK LEAGUE**

The All Thumbs were. They dropped 3 to the Contacts, who had C. Lydecker on their side with a 184, which is now high for the season.

A 158 game by D. Rippenger and a 153 by D. Hillen helped the Nightingales to take all 4 from the Question Marks, thereby taking the first place position by two games. Captain L. Bartos came through for the Marks with a 6-7-10 split.

The Congressional Medal of Honor has been awarded to V. Austen, who bowled in a cast and led her Dipions to a 4-0 victory over the Twinkletoes.

(Continued on Page 4)

**OAK RIDGE AREA—cont'd.**

AEC. Oak Ridge Operations (ORO) is responsible for a broad range of production, research and training activities that are carried out in plants and laboratories in five states and Puerto Rico. Its principal functions are: directing the operation of feed materials plants; directing the operation of gaseous diffusion plants and other production facilities; and administering contracts for research and training facilities, including ORNL. The AEC has also assigned ORO the major responsibility for two phases of its power reactor program – gas-cooled reactors and thermal breeder reactors. Under construction now at Oak Ridge is the new Experimental Gas-Cooled Reactor, to be operated by the Tennessee Valley Authority. A combination production unit and experimental plant, the ECGR will be the first civilian gas-cooled power reactor in the United States.

In the category of operating facilities at Oak Ridge are five installations: Oak Ridge National Laboratory, two production facilities known as the Y-12 and Gaseous Diffusion plants, the University of Tennessee-AEC Agricultural Research Laboratory, and the Oak Ridge Institute of Nuclear Studies. Three of these – ORNL and the two plants – were the major initial facilities at Oak Ridge and are now operated by Union Carbide Nuclear Co. The Y-12 plant performs heavy engineering, stable isotope production, research on process improvement, and other special atomic energy research and production projects. The Gaseous Diffusion Plant is one of three operated for the AEC for the large-scale production of enriched uranium 235 by the gaseous diffusion process. In this process, a gaseous chemical compound of uranium ( $UF_6$ ) is diffused, in several thousand stages, through porous barriers that gradually concentrate and separate the U-235 isotope from the  $UF_6$ .

The Agricultural Research Laboratory is operated for the AEC by the University of Tennessee. The Laboratory is engaged in a program of radiobiological research in agriculture, including work with laboratory and farm animals and in applied radiobotany and plant breeding.

The fifth and final member of the group of operating facilities is Oak Ridge Institute of Nuclear Studies (ORINS). Sponsored by some 38 member universities in the South and Southwest, ORINS is under contract to the AEC for administering a variety of research and training programs. Among its principal purposes are stimulating cooperation between the Government and participating universities in fundamental atomic research; and fostering the utilization of the Oak Ridge Area's facilities for graduate research and instruction. In the field of training, the Institute administers the AEC-sponsored fellowship programs in nuclear science and engineering, radiological physics, and industrial hygiene. Another training program is a series of basic and advanced courses on the handling of radioisotopes. These courses have been attended by scientists from all over the world. ORINS also sponsors several research and training programs cooperatively with ORNL.

One of ORINS' most interesting activities is the operation of the American Museum of Atomic Energy, located at Oak Ridge. The Museum is the world's first permanent museum devoted exclusively to telling the story of the atom. Each year, thousands of visitors view its exhibits on the history of atomic energy development and the peaceful uses of the atom. Through the Museum, ORINS conducts the AEC's traveling exhibit program, which takes the story of the peaceful uses of the atom to every part of the United States. Explaining the atomic energy program in simple, non-technical language, these traveling exhibits are seen by more than 7,000,000 people annually.

**BERA BOWLING—Cont'd****RED LEAGUE**

The Mecas no meca out so very good—they dropped 3 points to the former top bananas, the Utilities. Lehecka was tops for the Mecas, rolling 173/176/508. For the winners, Iarocci went 199/518.

The Comos defeated the Downunders 3-1. Carsten did his usual best, 215/453. Skelton and Tranis bowled 160/453 and 161/450, respectively, for the winners.

Still going strong, Biology took 3 points from the Ah So's. Berech's 170/178/504 and Rigopoulos' conversion of the 6-7-10 split were too much for the Ah So's, whose best was Jackson's 435 series.

The HP Ins just won't give in—they picked up 3 more points from the HP Outs with the better help of Malinowski, 181/191/542, and Baker, 160/470. For the HP Outs, Caldwell did his trying best, 176/436.

**PURPLE LEAGUE**

The Phoubars extended their winning streak another 4 points, this time at the expense of the Hopefulls. Phoubars best were Cox, 194, and Vogt, 189/495. Hopefulls' Sundberg rolled 177/519.

The Designers, with good team bowling, defeated Fiscal 4-0. High men for the Designers were Rocklein, 189/553, Chirco, 175/504, and Cuccia, 175/485. Fiscal's best was Coughlin, 198.

The Woodbutchers and the Scotches fought a pin battle, with the Woodbutchers coming out on top 3-1. Leading Woodbutchers were Benson, 208/515, and Milian, 176/503. For the losers, Mead and Pontieri rolled 178 and 174.

With new brooms, the Bowl Aids swept 2 points away from the Toppers. Bowl Aids with the brooms were Walsh, 162, McIver, 156. Top Toppers were Bubka and Reany, 193 and 191/530, respectively.

**BLUE LEAGUE**

The Bubble Boys lost 3 games to the Left-overs. For the winners, Rueger and Uddman rolled 216/575 and 215/532, respectively.

The Needlers took the Skins for 4 games. Earle of the Needlers rolled a 186; for the Skins, Bugala scored a 205.

The Techs also swamped the Nuclides 4-0. For the former, Larsen and Hildenbrand both bowled 200.

The Bubble Finks and the Splitters two 2-2. For the latter, Spira's high game was 193 and Sick's high series was 518. Baer of the Bubble Finks bowled a 172.

The Sleepers conquered the Alleygators 3-1. For the winners, Lypecky bowled a 191. Stelmaschuk of the Alleygators rolled a 192.

A friend of ours just dreamed up a new kind of Christmas Club. In this one, you save up enough to pay for last year's gifts.

**CLASSIFIED ADS****FOR SALE**

1960 MGA - White with black interior, wire wheels, r&h, 14,000 mi., gd. cond. Jack, Ext. 2552 or YA 4-6140 evenings.

1947 FORD CONVERTIBLE - Very fine cond. Will accept best offer. JU 5-8322.

1931 MODEL A FORD - Conv. deluxe roadster, complete with rumble seat and distinction. Very gd. cond. Ideal for restoration hobby or 2nd car. Best offer over \$450. Ext. 2102 or HA 7-6066.

1954 MERCURY MONTEREY - 4 dr., r&h, automatic shift. Ex. cond. Orig. owner. \$350. GR 5-1285.

HOUSE - 7-room split, dead end st. in Huntington, on ½ acre with trees. Liv. rm. with firepl., dining rm., rec. rm., patio, laundry rm., basemt., 3 bedrms., 2½ baths, garage, all appliances, oil/h w heat, storms and screens, extras. Ext. 2102 or HA 7-6066.

HOUSE - East Patchogue. 3-bedrm. split level on 100x100 plot. Ex. area. AT 9-0632.

HOUSE - California Ranch, Brookhaven. 3-4 bedrms., 2 full baths, full basemt., appliances, firepl., ¼ acre plot. Owner leaving Lab, must sell. \$17,000. Sher, Ext. 453 or AT 6-1262.

BOAT - 1958 Whirlwind, molded mahogany, 14 ft. 1959 Evinrude 35, controls, wheel, etc. Motor like new; hull excellent. Stored inside. \$550. Ext. 2316.

FIBERGLASS RUNABOUT - 16 ft., 30 hp Johnson Electric. Fully equipped. End of season bargain. \$650. AT 6-8990.

OUTBOARD - 1958 big twin 35 hp Evinrude purchased new in 1959. Gd. cond., asking \$205. Also, Model 1898 30-40 Krag rifle, \$32, and 32 cal. automatic pistol, like new. Asking \$21. Meyer, Ext. 481 or LT 9-5757 after 6:00.

OUTBOARD ENGINE - 1958 35 hp Evinrude, elec. start, long shaft. Used very little. \$200. JU 5-8322.

CAR JACK - Sears, Pyramid, heavy duty, new. \$7. Vogt, Ext. 2107.

RIFLE - U.S. model 1917, 30-06 caliber. NRA. Very gd. to ex. cond. \$30. Langfeldt, Ext. 2456 or AT 6-1331 after 6:00.

RIFLES - Model 340, 30-30 caliber, ex. cond., and model 340-B, 222 Rem. caliber, very gd. cond. Also, Ruger "Blackhawk" pistol, 44 mag. caliber, ex. cond., permit required. All weapons at reasonable prices. Buhl, Ext. 354 or GR 5-2129.

WASHING MACHINE - G.E., abt. 6 yrs. old. As is, \$20. or best offer. Also, elec. mangle, operating cond. unknown. \$10 or best offer. B. Keck, Ext. 752 or AT 6-9751 after 6:00.

WINTER COAT - Surprise your wife! Beautiful "Cloud 9" orlon and dynel beige coat, size 16. Cost \$175 last yr.; now a steal at \$38. Wagner, Ext. 618.

SLIDE PROJECTOR - Revere 500-watt semi-auto. 35 m.m. Almost new. Slide trays. Asking \$50. Starr, Ext. 439.

DINETTE SET - Formica top, 4 chairs with plastic seats and backs. Ex. cond. YA 4-3761 after 5:15.

DEER RIFLE - 1903-A3 Springfield, 30-06 caliber. \$35. Also, Model 70 Winchester w/k-3 scope, Redfield mount. 375 H & H caliber. \$135. New gun value \$200. Zahra, Ext. 2170 or HR 3-2889 after 5:30.

WASHING MACHINE - Monitor 3 lbs. portable, 2 yrs old. \$30. Also, vacuum cleaner, \$15, baby carriage used 6 months, \$19 with mattress & bag. Ext. 540.

FISHING POLE - Surf casting, 11 ft. Lott Bros., ex. cond. Any reasonable offer. Also, flexible shaft, 6 ft. heavy duty. \$5. Ext. 2184.

GIRL'S BICYCLE - With basket, Gd. cond. \$10. Judy, Ext. 2144 or AT 6-9357 after 5:30.

**FOR RENT**

APARTMENT - 3-rm. furnished. Conveniently located. Car pool easily arranged if nec. YA 4-3761 after 5:15.

HOUSE - E. Main, Yaphank. 3 bedrms., dining rm., dinette, bath. Partially furn. if desired. 100x200 landscaped plot with barbecue, picnic table. Call owner for appointment, Valley Stream, LO 1-7947.

**WANTED**

USED FREEZER - Upright, also refrigerator. Ext. 2184.

BABY-SITTING JOBS - Capable woman will watch children for working parents. Vic. Patchogue. Frank, Ext. 772 or AT 6-8408.

WHEELBARROW - With wooden, removable sides. Dahl, Ext. 301.

TO SHARE HOUSE - Single male, in twenties. South shore. Ext. 2348.

HOME FOR GERMAN SHEPHERD PUPPY - 6 mos. old, beau. coloring, gd. with children. Ext. 2184.

**LOST AND FOUND**

LOST - Diabetic medallion, lost at Pool on or about 11/14/61. Ext. 2111.

FOUND - Pipe. Personnel Services, Ext. 2107.

**CAR POOLS**

WANT to join or form carpool from Lloyd Harbor area in Huntington. Jacobs, Ext. 428.

FOUR DAY WORK WEEK - Or fifth driver for Setauket-Strongs Neck car pool. If interested in latter, call Eichacker, Ext. 2165.

**ANSWER TO CHESS PROBLEM****WHITE**

- 1 N-B7 Check
- 2 P-R7
- 3 K-Q1
- 4 N-Q6
- 5 N-B5
- 6 P-N6
- 7 N-K7 Check
- 8 N-B8
- 9 P-N7, Etc.

**BLACK**

- 1 K-N1
- 2 R-K3 Check
- 3 R-K1
- 4 R-Q1
- 5 B-B1
- 6 B-B4
- 7 K-Any
- 8 R x N