



Time is too slow for those who wait; Too swift for those who fear; Too long for those who grieve; Too short for those who rejoice; But for those who love, Time is not.-Henry Van Dyke



Contribution by:

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Developed by:

Blue Mountain Girl (k and t wright) Ec stasv Express (desmond sullivan)

Boney Stokes

john sagner—guitar—vocal desmond sullivan—drums paul smith—guitar—vocal timothy wright—keyboard—lead vocal richard neg nagle—bass—vocal

An Underwear Song (andrea jay) andrea jay—guitar—vocal stanley jay—guitar *Underwear Song Sanforized* 1972

Pretty Woman ken kayser-vocal-guitar

Special thanks to:

linda bovo franc caggiano ray hulsey luna cathy wall

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#### EXTRA SHEEN RINSE

2 tsp. dried rosemary 2 cups water

Steep the rosemary in boiling water for 10 minutes. Allow to cool. Strain, squeezing hard to get the last few drops. Shampoo as always. Use the rosemary liquid as a final rinse.

In this package you will find accompanying herbs and spices. Rosemary, curry and peppermint leaves. [Shrimp, Chicken, vegetables...]

Ingredients:

2 tbs. butter

1 clove garlic.

1/4 tsp. ginger

cavenne pepper

2 medium finely chopped

8 ox. meat or vegetables

Melt butter. Add garlic and

onions. Saute till translucent.

mix. Add salt, ginger, pepper,

cayenne pepper and mix. Add

vegetables) and simmer until

Serve with brown or white rice.

water, tomatoes, meat (or

slightly thickened.

Add flour, sugar and curry and

1 cup water

tomatoes

2 tbs. flour

2 tsp. sugar



TEA If made properly, this tastes as good as A & W Rootbeer but it

won't rot your guts out.

You'll need:

1/2 ounce of Sassafras Tea Honey **Boiling Water** Ice Cubes

Use one teaspoon of Sassafras Tea for each glass of tea. Make the tea as you would make regular loose tea. Add the honey, to taste, while the tea is still hot, or else you will be left with glops of unmelted honey. When the tea cools sufficiently, pour into a large pitcher and add ice cubes. Chill in the refrigerator for awhile before serving.

## BANANA BREAD

4 large ripe mashed bananas 1/2 cup plain yogurt 2 eggs 1-1/2 cups brown sugar 1/2 cup butter salt to taste 1 tsp. soda 3 cups 100 per cent whole wheat flour Optional: add crushed almonds Add the yogurt and eggs to the

mashed bananas. Sift the flour,

soda and salt and cream the



#### EL CHEAPO BROWN RICE CASSAROLE

You'll need:

1 cup brown rice 1/2 pound American Cheese or Chedder 1 box frozen mixed vegetables or your own cooked vegetables chopped into little pieces salt to taste a cassarole dish or metal pan

Cook the rice [brown rice is cooked in the ratio of 1 cup brown rice to 2 cups water]. When the rice is almost done, add the frozen or already cooked vegetables and let them cook with the rice, until the rice is done. Put a shallow layer of rice and vegetables in the bottom of the baking dish. Cover with a laver of American or chedder cheese. Continue making layers of alternating stuff until you have no more. Bake in a pre-heated oven, covered (you can cover with aluminum foil) for not more than 109 minutes.



#### ONION CHUTNEY

1/2 cup green pepper 1/2 cup chopped onion

- 2 tomatoes (chopped) 1/2 cup red peppers
- 1/2 cup lemon juice
- dash of cayenne pepper

Combine and set aside for at least an hour



margerine and brown sugar. Add a little of each to the butter mixture, alternating the additions. When well blended, pour into oiled bread pan and for a single loaf, bake one hour at 350 degrees. If two loaves are used, bake five minutes less.

## Tomatoes; The Best of the Bunch

#### By CARL D. CLAYBERG

PRINCIPAL pleasure for the home gardener during the dreary winter months is planning what to grow the following summer. After the seed catalogues have arrived, he spends many happy hours reading through them selecting the varieties that look most appealing. Only someone with a large garden, however, can grow many varieties of a single vegetable to find the ones most suitable for him. This is especially a problem with the tomato: More than 300 varieties are currently available.

Last summer I grew some 50 new and old tomato varieties to evaluate their relative merits. As my tomato breeding work primarily concerns early varieties, I selected only early and midseason types for the trial.

Late várieties usually have stems that grow indefinitely in length, producing in regular alternation a flower cluster, three leaves, another flower cluster, and so on. These are called indeterminate varieties.

In contrast most early varieties, and all varieties described here unless indicated otherwise, are determinate. They have shorter stems which end in flower clusters and have less than three leaves between the flower clusters. This growth habit leads to a concentrated early set of fruit low on the plant, so staking is unnecessary. Determinate plants also should not be pruned. They usually are small enough and pruning can markedly reduce their fruit yield.

Over the years plant breeders have developed varieties resistant to serious diseases or pests not easily controlled by the home gardener. If he has been unable to grow healthy tomato plants, resistant varieties may be the answer. Resistance to fusarium and verticillium wilts and to nematodes is especially valuable. Such resistance is noted in the varieties described below. Also given are average fruit weights, based on the results of the trial.

Those who cherish having the first ripe fruit of the season will be interested in three small-fruited varieties that were particularly early. They ripened fruit in only three months from seed planting. Two had small plants that produced fruit for a few weeks and then were finished for the summer: Early Cherry (average fruit weight 1.0 oz.; sources: Agway stores; Harris Seeds, Rochester, N. Y. 14624) and F1 Early Salad (1.2 oz.; Burgess Seed and Plant Co., Galesburg, Michigan 49053). Red Sugar (0.4; Burgess) was a large, prostrate-growing, indeterminate variety with very sweet-flavored fruits.

Slightly later than these was one of the best varieties in the trial, Petoseed Company's All-America winner Fl Small Fry (0.8 oz.; Burpee Seeds, Philadelphia, Pa. 19132; Harris; Stokes Seeds, Box 548, Buffalo, N.Y. 14240). Small Fry has especially good flavor, yields prolitically for most of the season, and is resistant to fusarium and verticillium wilts and to nematodes.

Some gardeners feel that tomatoes are simply not worthwhile growing unless they have large fruits. The earliest large-fruited varieties are about two weeks



ater than the earliest small-fruited ones. The standard n this type is still Fireball (4.6 oz.; Harris). It is fairly small plant that fruits for only a few weeks. New Yorker (5.2 oz.; Agway, Harris, Stokes) is similar in most respects and is resistant to verticillium.

Two others as early but with even larger fruit are Early Bird (6.4 oz.; Stokes) and Starfire (6.0 oz.; Stokes). Early Wonder (7.8 oz., Burgess) is a few days later but has the largest fruit of the early varieties tested.

Four excellent midseason varieties were equally good. All are resistant to fusarium and verticillium wilts: Campbell 1327 (8.6 oz.; Harris, Stokes) with considerable resistance to fruit cracking; F1 Pearson Hybrid No. 9 (9.4 oz.; Stokes); F1 Jet Star (10.4 oz.; Harris), an indetermine type; and F1 Terrific (10.0 oz.; Park Seed Company, Greenwood, S.C. 29646), also indeterminate and resistant to nematodes.

The variety Burpee's VF (8.4 oz., Burpee) ripened its first fruits at the same time as the midseason varieties but continued to produce them for a much longer period. It could also be considered a late variety. This fusarium and verticillium resistant variety is indeterminate and a heavy foliage producer that should be staked and pruned. A dry summer with rain at the end of the season will cause much fruit cracking in late tomatoes. These conditions have been common in recent years, and our trial last summer was no exception. But Burpee's VF was among the most crack resistant varieties tested.

One last point should be stressed, whether the gardener grows his own plants from seed or buys them from a bedding plant dealer. Even if only a few plants are grown, they should be of different maturities so that fruit are produced throughout the season. Two plants each of early, midseason, and late varieties, for instance, will suffice for the small garden.

Dr. Clayberg is Associate Geneticist at The Connecticut Agricultural Experiment Station, New Haven.

#### PEPPERMINT FOR HEALTH

Peppermint is one of the oldest household remedies. Peppermint tea is an excellent remedy for chills, colic, fevers, dizziness, gas, nausea, vomiting, diarrhea, dysentery, cholera, heart trouble, palpatations of the heart, influenza, la "grippe" and hysteria. Applied externally it is good for rheumatism, neuralgia and headache. Peppermint enemas are excellent for cholera and colon troubles, and for convulsions and spasms in infants.

Peppermint is a general stimulant. A strong cup of peppermint tea will act more powerfully on the system than any liquor stimulant, quickly diffusing itself through the system and bringing back to the body its natural warmth in cases of sudden fainting or dizzy spells, with extreme coldness and pale countenance.

Coffee hinders digestion, weakens the heart and is one cause of constipation. Peppermint tea is delicious, strengthens the heart muscles and cleanses the entire body. In place of asprin for headache, take a cup of strong-as-you-like-it peppermint tea, lie down for a while, and see what a good effect it will have. If necessary, in the case of headache, drink two or three cups so that it gets into the system and it will not disappoint you. Peppermint strengthens the nerves instead of weakening them as asprin does. Also, it cures INSANITY!!!!!!

#### PEPPERMINT BEVERAGES

Tea:

Peppermint tea made of whole leaves has a subtle flavor, while a stronger flavor is found with shredded leaves.

#### Cup:

1 tspn. of tea in a cup. Add boiling water. Steep 3-7 minutes. Pot:

Boil water. Add 1 tspn. tea for each cup of water. Steep 7 minutes.

Tea can be flavored with honey and/or lemon. When using a teapot, place cinnamon sticks in pot with steeping tea.



#### PLANTING C \*\* Average date of last frost: Bellingham: Bellingham: April 20 Seattle: April 10

Outdoor Planting Date Comments : R.B. (Recommended for Beginners ) Vegetable Room To Vield Per Soil Conditions Looks Often Grow Square Yd. Ease in Growing Feb., March Once Ordinary Very little Excellent R.B. Easy: A few bulbs lasts Quaint a family all year Early March Once Fertile Loads Poor Plain Slightly acid Needs lots of room Succesively \* Early March Good Not too acid Ordinary Pretty for a month R.B. Easy .. \* Early March Lots ... Lush Light, sandy Needs care \*Early March Ordinary 17 11 Cute R.B. Easy .. " R.B. Easy \*Early March Rich Honest **Mustard Greens** ... ., Very rich Tricky Healthy .. ... ... Spring May bolt on a sunny day. Rich, non-acid Troublesome, but valued for a .... Spring; ... Magnificent late fall crop. Lots Midsumm Non-acid Successively Chard, Collards Spring Rich, moist Very little Terrific Handsome R.B. Easy: High yield, long harvest all Spring Chives, Onions Loose deep Spring .. Ordinary Good Supple R.B. Easy; mix with the other crops Successively Lacy R.B. Easy: long season, but seed Spring .. during season Deep, rich slow to germinate R.B. Perennial Once, permanently Very little Lovely \*\*After frost Good: Rich Perennia Rich.deep Ordinar Perennial \*\*After frost \*\* Marvelous .. Non-acid Perennial: Once its planted, it's \*\* After frost ..... Baroque Rich, moist no trouble for many years ., Rich R.B. Easy grower, high yield, \*\*After frost -Successively long harvest Excellent Robust Successively \*\*After frost Head, Leaf Lettuce Light ... R.B. Easy for a month Dainty Good \*\*After frost Ordinary R.B. Easy, fun, aromatic Parsley, Herbs Once ... Exquisite Set plants out \*\*After frost Non-acid Lots: Great Needs T.L.C. Fruit may not ripen Once Voluptuous Well-drained Stake Good Difficult; Needs bog conditions Once Rich, mucky Spiky \*\*After frost Ordinary Once Sunflowers Anysoil \*\*After frost Terrific Gargantuan R.B. Easy; high yields Lots Successively, \*\*After frost Rich Quick R.B. Easy Great Ordinary during season Set out plants Needs a headstart indoors in the Lots : Grow Good Elegant Not too rich \*\*After frost

\* Or as early as ground can be worked

Planted How

Garlic

Beets

Peas

Potatoes

Radishes

Spinach

Cabbage

Carrots

Rhubarb

Artichoke

Asparagus

Broccoli

Tomatoes

Celerv

Beans

Peppers

Squash

Corn

Leeks

Kale

Cucumbers

**Brussel Sprouts** 

2 Weeks after

2 Weeks after

Z Weeksafte

midsummer

midsummer

midsumme

last frost

last frost

last frost

Once Northwest. Vertically Successively Light, Non-acid " Excellent Thrilling for a month R.B. Easy .. Good Sinuous R.B. Easy Cool, moist .. R.B. Easy, but needs lots Non-acid Loads Exciting .. Poor of room Rich, moist Once Ordinary Funny Good for late fall crop. Good Rich, deep Sturdy Troublesome, but a good Good late fall crop Successively Rich, Great Gorgeous frilly plumes Non-acid for a month R.B. Easy, hardy; valued for a late fall crop Northwest Passage March 29-April 11, 1971

## MASSAGE IS A HEALING ART

Massage is a healing art. To do massage is to physically help people; to take care of them. It is for anyone with whom you feel prepared to share an experience of physical caring. It is for your friends, your family, your lover, everyone.

The core of the massage lies in its unique ability to communicate without words. When receiving a good massage, a person usually falls into a mental and physical state that brings with it a flowing peace and feeling of being alive. Each touch is a statement, bringing you to a sheer sense of physical and spiritual existence. You can bring your friends into this state, which is in itself a gift. Massage, in essence, is something very simple that can make us more whole, closer to ourselves. With our hands we have the power to give this gift to others.

The best way, and the only really good way, to do massage is with oil. You need some kind of lubrication in order that your hands may move smoothly over the surface of the skin, and oil is better than anything else. The two oils usually used are mineral oil and vegetable oil. They are both good. Most oils usually have an unpleasant odor, if so, be sure to add something that will give it a pleasant scent.

The easiest way to do massage is on a massage table, or on something with underlying support. A floor with padding (thick blankets) underneath the person is good. DO NOT try to give a massage on a bed because there is not the support necessary for applying pressure. Water beds, however, are the exception to the forementioned rule.

The right setting can make a good massage even better. Choose a place where you will be alone and it will be quiet.

Firelight makes for the perfect atmosphere for a massage. It gives off just the right degree of light and warmth to make you and your friend comfortable. Candles are good for lighting also.

The best way to receive a massage is in the nude. Clothing will only get in the way of whomever is giving the massage, also you will miss the sensation of a complete massage. If you must, then do leave something on, but be sure to remove all jewelry, glasses and anything in your hair.

Now you may begin:

The top of your head should be about even with the end of the table or padding on which you are laying. Rest your arms at your sides.

Once you feel settled in place, close your eyes. Now focus on your breathing. This will bring you more in touch with your body. Try to bring yourself more and more into the present moment; relax; let yourself drift.



From this moment on, just let yourself be completely taken care of. Don't try to help with the massage in any way. That would only cause a break in the relaxing flow of the massage. Keep yourself as limp as you can. Focus on the quality of touch.

According to the yogis of India and Tibet, our psychological and spiritual condition is most dependent on the state of the spine, more than any other part of the body. Therefore, more time should be spent massaging the back.

Now for the person giving the massage: First, spread oil on the back, shoulders and torso. Place your palms on either side of the topmost part of the back, with fingers pointing toward the spine. Have the tips of your fingers right beside, but not on, the spine itself. Repeat this four or five times.

Now glide your hands down the entire length of the back. Keep a firm steady pressure, using as much as possible of your own weight (leaning forward helps). Repeat this four of five times.

When you near the lower end of the spine, separate the hands and bring them over and down the sides of the hips. Then very slowly pull both hands along the sides of the torso in the direction of the shoulders. Pull Hard. Just before reaching the armpit, glide your hands back to the topmost part of the back. Then pivot them, with fingers toward the spine so that they're back in place to repeat the entire stroke again.

Work your thumbs on the lower back. Make short, quick, alternating strokes, moving up the back. Go over the same spot a few times before moving on. Also be sure to work on the lower part of the spine because this is the high tension area for almost everyone.

Move to the upper back, another high tension area. Using your thumbs, begin by kneading the muscles curving from the neck onto the shoulders. Make short, quick, alternating strokes. Work the muscles gentley between the thumb and forefingers, doing both sides at once. Try concentrating on the muscles above the blades, then on those lying between the blades and the spine.

This stroke is easy, and very relaxing. Trace the spine from neck to tailbone with the forefinger of one hand. Start where the neck meets the base of the skull. Use the tips of the two fingers. Keep the pressure moderate and move very slowly. That is all.

After you've taken your hands away from the person, do not disturb him or her. Move quietly.

If you like to be still and inside yourself for a few moments, now is a good opportunity.



my son left home yesterday. he took his stered, his record collection, his portable television, his 3 hundred dollar "hippie" Wardrobe



he said that I was too materialistic.





di masters

loaded it into his 1969 camavo and left



#### MEDICINE

#### DISEASES

#### Viet Nam's "Time Bomb"

In every war, disease far outranks combat wounds as a cause of casualties. The situation is no different in Viet Nam, where three out of every four hospitalized U.S. soldiers are sick rather than injured. Despite the fact that American battlefield medicine is the best in history, the illness rate remains high because an Iowa-born sergeant or a Georgia-born lieutenant has developed no immunity to the indigenous diseases of Viet Nam.\* Worse still, there are occasional cases of disease that a U.S. trained Army doctor has never seen before.

One such mystery illness has now been isolated and identified by the Army Surgeon General's office. Known as melioidosis, it was first discovered in Southeast Asia in 1911, but it is practically brand-new to Americans. Though some. of its symptoms (cough, fever, weight loss, chest pain and spotting on lung X rays) are similar to those of tuberculosis, it is an entirely unrelated illness. Caused by bacteria of the Pseudomonas family, which grow easily in the moist soil of Southeast Asia, melioidosis develops after invasion of the system through open wounds, the mouth or the nose. One helicopter crew chief came down with it apparently as a result of inhaling some of the mud kicked up by his whirling blades.

The noncontagious disease has been positively diagnosed in only 32 servicemen so far, but nine of them have died. And doctors fear that the worst is still to come. Melioidosis has the unpleasant ability to lie dormant in a victim for as long as six years. When it flares up, death occasionally follows within a few days or weeks. The "Vietnamese time bomb," as it has been grimly nicknamed, can be effectively treated by Chloromycetin. The drug, which is used against typhoid, must be given in large doses for at least a month. The prolonged period is essential but not without risk of side effects (including possibly fatal anemia). Since little or no effect is noted at the beginning of treatment, the doctor must be confident enough of his diagnosis to continue the dosage.

While tropical diseases have added to the medical problems, a U.S.-South Vietnamese report finds that the number of psychiatric cases is "remarkably low for the number of troops involved." Only 1.5% of the U.S. troops have psychiatric complaints; the comparable rate

\* Figures on South Vietnamese disease casualties are not meticulously kept, but their rate is markedly lower since the soldiers have resistance to local illnesses. The Viet Cong are naturally saying nothing, but the same can be presumed true of them. in Korea was 6.6%, World War II 10.1%. Among the reasons: combat fatigue has been drastically reduced by the sporadic nature of the fighting and by the one-year tour of duty. The incidence of psychiatric disability seems to be highest at the beginning and near the end of the tour, says one Navy doctor, who notes that some men become "obsessed about the possibility of getting hit at the very last moment."

#### DRUGS

#### Beyond LSD

The average thrill seeker, if there is such a type, may still be high on LSD. But to serious researchers, it has become as old hat as peyote and marijuana. Meeting last week at San Francisco's University of California Medical Center, 200 experts in psychiatry

faster than LSD. Made from the bark of the epena and ama asita trees, epena is administered through a blowpipe. The tripster puts one end of the pipe to his nostril, and a helper gives a full-lunged blast that sends the snuff deep into the nasal passages. At first reeling and retching from the impact, the snuff taker soon straightens up, begins to strut, emits an occasional laugh or yell, and slaps his thighs in self-esteem. Evidently, the Waika on *epena* experiences what the psychiatrists call macropsia: in his eyes everything is enormously magnified, including himself. He sees gigantic animals and birds. He feels not 10 ft. but 10,000 ft. tall, for his head is among the clouds. And after he has slept off his trip, he reports that he has talked with the häkula, the great spirits-although one Waika who had been to a mission school said that he had talked with the angels.

• PARICÁ is another snuff, ground and inhaled by the equally primitive Piaroa



WAIKA TRIBESMAN HAVING EPENA BLOWN INTO HIS NOSTRIL Conversations with an angel up among the clouds.

and pharmacology concentrated instead on the many other mind-altering drugs that are far older historically but now seem new because they have yet to be thoroughly investigated.

The conference participants showed a certain sense of urgency because most of these substances are still known only to relatively primitive peoples whose cultures are being bulldozed away by developing countries. The "psychoactive" substances under study ranged from *amanita muscaria* to yagé, from snuffs to enemas. They extend from the Andes across Polynesia to the East Indies, from the Siberian valley of the Yenisei to Hindu Kush and the Mediterrancan. Among the most discussed:

• EPENA, a potent snuff, is produced by the naked Waika Indians of northern Brazil—a tribe so backward that they have not yet discovered pots. But their hallucinatory snuff can induce a "trip" Indians of southern Venezuela. It has several active ingredients, two containing substances of a type found in brain tissue and another chemically similar to "psychic energizers." So, by centuries-old accident, the Piaroa anticipated modern psychiatrists who only recently discovered that by using several classes of drugs together, they can achieve a synergistic effect—one that is greater than the sum of the separate components. The effects of *paricá* are little known; no one but the tribal medicine man is allowed to use it, and his state can only be described as one of intoxication in which he stammers confused words.

• AYAHUASCA, a drink made from plants by various tribes of the western Andean slopes, is essentially the same as two other psychoactive drugs, *yagé* and *caapi*. While something has been learned of its effects and composition

TIME, FEBRUARY 10, 1967



from on-the-spot studies, more may soon be learned on the University of of its effects.

induces two hours of deep yet semi- roadside stands. conscious sleep followed by three or effort becomes possible.

• KAVA, the ceremonial beverage of the Polynesians, is not strictly speaking hal-California's Berkeley campus. For there, lucinogenic. But when quaffed at the following its mention in William Bur- end of a hard day at the copra mill, roughs' Naked Lunch, yagé is now be- kava sends its user into a dream world ing peddled surreptitiously as "the jun- of detached contemplation, leaving no gle drug" or "the tiger drug." So far, hangover. It is so much a part of isthose who have taken the substance land life that in 1914, when Ratu Suhave not told scientific investigators Kuna, the future head of the Fijian government, set off to study at Oxford, he could not bear the thought of leav-• FLY AGARIC (amanita muscaria) 15 a ing kava behind. He had a brew premushroom that sprouts across most of pared of the pepper root (Piper meththe northern part of Europe and Asia. ysticum), let dozens of bowls of it dry R. Gordon Wasson, who tracked down in the sun, and then carried the stuff off the "magic mushrooms" of Mexico to England. Whenever he felt the need, (TIME, June 16, 1958), suspects it of he mixed a batch with water: instant being identical with the legendary Hin- kava. Now, decades later, there may du substance called soma, the inspira- soon be a kava-cola. A somewhat less the substances used by primitive man tion for much of Aldous Huxley's phar- potent version of the traditional grog is should prove helpful for research into macofantasies. Fly agaric, he reported, already the bestseller at Polynesian the workings of the human nervous sys-

four hours of extraordinary elation and cisco acknowledged that the identifica- some day to tame psychoactive drugs hallucinations, while unusual physical tion and introduction of new mind- into predictable tools for psychiatric expanding drugs will inevitably provoke research and treatment.

fringe-group experimentation-given the realities of today. "Those dated obiectives of adequate food, housing and racial equality" are now within sight, observed Dr. Nathan Kline, director of research at New York's Rockland State Hospital. "The sense of great purpose and broad adventure which those goals engendered have vanished." Hence, "curiosity and action are directed inward," and drugs that "sever the tenuous ties with the outside world are highly prized." Yet, concludes Kline, "dissociation per se has no value

What does have value is greater knowledge, and the researchers' interest is more than idle curiosity. Some of tem. By determining just how the drugs The scientists gathered in San Fran- work, the psychopharmocologists hope































## Can Man Control His Mind?

Bio-feedback holds great potential benefits, although it is surrounded by fad and fancy spiced with a touch of the occult and garnished here and there with a trace of charlatanism.

"Dr. Elmer Green, a re-search - psychologist at the Menninger Foundation, Topeka, Kan., believes strongly that almost everyone can learn to control mind and body functions through biofeedback training, although he notes that its universality has not been scientifically proven. At the Menninger Clinic Dr. Green and his wife. Alyce, have trained a number of subjects to raise and lower the temperatures in their hands at will and then to control the flow of blood to the head to allieviate migraine headaches.

About 2000 scientists from Harvard to Berkeley are involved in various forms of bio-feedback research, ac-cording to Dr. Barbara Brown, Chairman of the Biofeedback Research Society and chief of experimental physiology at the Veteran's Administration Hospital in Sepulveda, Calif.

Researchers contend that bio-feedback training might replace many drugs, rid people of psychosomatic sicknesses, improve memory, facilitate learning, and alleviate diseases whose origins can be traced to improper control of visceral organs—the heart, kidneys, glands, blood vessels—and most important, the mind.

These are goals thought to be attainable by some legiti-mate scientists. Their attainment, however, is far away, as even bio-feedback's most ardent advocates admit.

The key to bio-feedback training is teaching a person to recognize and then control his internal body rhytems, particularly brain wa

The brain gives off faint electrical impulses that can be measured by electrodes

attached to the scalp and connected to a sensitive amplifier called an electroen-cephalograph (EEG). The ink pen record of these impulses creates recognizable braincreates recognizable brain-wave patterns, which have been classified into four basic categories based on frequency, or speed of im-pluse, and amplitude, or voltage strength of the impulse.

¶Beta-14 to 40 cycles per second. The eyes-open, awake state that in which

man generally operates. ¶Alpha—7 to 13 cycles per second. A state of relaxed awareness that is sometimes associated with yoga and zen. A pleasant state, similar to light sleep or daydream, it is the mind level usually sought for bio-feedback train-

gTheta-4 to 7 cycles a second, associated with sleep, although there are some indications that it may be man's most creative, problem-

Solving level. ©Delta—0 to 4 cycles a second. Very little research has been done on this level.

Bio-feedback training de-vices are usually less expensive EEG type machines that have been modified to generate a sound or flash a light when the subject enters the desired state of brainwave production.

Some 60 companies-usually privately owned and often on the West Coasthave sprung up in the wake of bio-feedback wave. Most manufacture bio-feedback machines selling for between \$70 and \$350.

Some of these devices work: others do not. One machine, selling for \$300, actually registered scalp twitches and thus was teaching its users not to produce alpha waves but to twitch the scalp in a certain way.

Carl Hays, president of Medcraft, Inc., a manufac-turer of \$6,000 EEG machines for hospitals, said that al-though the production of biofeedback devices involved

highly sophisticated elec- can identify the state for the tronic techniques because of students.

So far no big company, has become deeply involved in the brain-wave business although unconfirmed and unconfirmable rumors keep suggesting that many of satisfied, and the company the giants of the "Fortune says no one has yet re-500" have bio-teedback pro-grams for their executives. C. W. Post College, Green-

the only industry giant that admits to having an on-going research program. Roy Lahr, manager of special projects, commented, "We consider it a field on which we should keep an eye. At present we are using outside equipment in experiments just to see what can be done. It could be important in relieving executive tension. We are presently working with a de-vice that is small enough to be carried in an attache case." He added, however, "We have made no commit-

ment yet." The largest company in the field, the Mind Control Institute, Inc., uses no electronic. bio-feedback devices but claims to be able to teach students to reach the alpha state at will and not only accomplish what other re-searchers are striving for, but also to achieve extrasensory perception.

The Mind Control Institute has graduated almost 50,000 persons from its four-day, 2: hour-a-day course for which students pay \$150. Mind-con-trol classes are taught in all 50 states, Mexico, England and Canada and a program is being classed for is being planned for Europe. The bio-feedback research

community frowns somewhat on Mind Control. Dr. Green Menninger's contends that It uses a hypnotic technique rather than true bio-feedback training. He also contends that the course should not claim to train alpha state unless it has a machine that

the faint electrical power of However, a recent study brain-wave, a number of the by Trinity University, San machines on the market did Antonio, Tex, would appear work. So far no big company of Mind Control do attain has become deeply involved a high degree of Alpha production. Participants are offered their money back at the end of the course, if not

The Xerox Corporation is vale, L. I., is planning to e only industry giant that offer the course at its business school this fall, and Canisius College will offer it in its Department of Religious Studies.

Mind Control's course was devised in 1953 by José Silva, a stocky, soft-spoken Mexican American with only three years of formal education. In 1968 Mr. Silva joined with Harry McKnight, an ex-Jesuit and began giving courses throughout the Southwest.

Mr. Silva describes his course as learning consciously how to use the subconscious and thereby improving man's problem-solving capability.

The New York office is headed by Timothy Harvey, a 30-year-old Naval Acadamy graduate. Its chief in structor in Stephen Barham, a former Orthodox priest.

The bio-feedback concept was developed in Germany around 1910 and brain-wave patterns were recognized in 1920. Aldous Huxley de-scribed the two types of human beings in his "Brave New World" as Alphas and Peter Betas.

Mr. Huxley, who knew of autogenic research, made the Alphas much the better off of the two, but nonethe-less, "Brave New World" was not a very pleasent new world.

It remains to be seen whether developments in biofeedback will contradict Mr. • Huxley's vision of the future.







Bucking to World Game, no one loses. The name of this game is United We Stand. The World Game is mankind's

A concrete scientific alternative to politics now exists. For the first time in history it is now possible for society to shape its destiny completely outside the realm of political activity as we know it. Even the remotest possibility of a true alternative to politics should be sufficient motivation for each man to discover for himself whether or not it exists. But Buckminster Fuller's World Game is far beyond the planning stage. It is presently under way at Southern Illinois University, where a \$16 million computer complex is being constructed to serve as World Game headquarters.

There, at the site of Fuller's World Resources Inventory, a football field sized map of the world will be stretched out horizontally in the center of a huge arena some 600 feet long and 400 feet wide.' From two levels of balconies approximately eight to ten floors above the map, viewers will be able to see the entire earth's surface simultaneously without any visible distortion of the relative size and shape of the land and sea masses. This huge cartographic Dymaxion projection of the earth will display the continents arrayed as one world-island in one world-ocean with no breaks in the continental contours.

The great map will be wired to serve as a giant visual display surface for information from a battery of high-velocity digital computers with megabit capacities approaching four million bits each. The computers will be located beneath the map in subterranean chambers, or in special structures adjacent to the display arena. The map's surface will be activated by the computers to show proportional data regarding the planet's raw and organized resources, world conditions and events, together with the history and trending patterns of world people's movements and needs. Remote viewing and operating consoles will be situated throughout the double balconies for personal interaction with the computers and their visual displays.

While the Illinois complex will serve as the central brain, World Game extension groups are being established at universities, colleges and centers all around the world. They'll be equipped with remote-control viewing and input/ output subsystems linked with the central World Game Inventory. (I'll be conducting one such group next year as a faculty member of the California Institute of the Arts.) With this network of ultra-sophisticated technology, a giant world logistics game will be played by individuals or groups all around the world, using a series of computer programs based on principles of Game Theory, General Systems Theory, input/output theory, etc. Called "The World Game," it is basically a reversal of Dr. John Von Neuman's widely-used Game Theory of military strategy, such as practiced in the computerized brain trusts of the Rand Corporation and the Pentagon.

Militarists attempt to pre-experience the probabilities and consequences of world war by using Von Neuman's Game Theory in terms of optimum logistics and ballistics presently available. Game Theory is always played on the axiomatic assumption that it's either "them" or us, that there's not enough world resources to support humanity, and therefore only the fittest survive, armageddon is inevitable. (This is the only reason sovereign nation-states exist in the first place.) According to Game Theory, someone must lose. The name of the game is Divide and Conquer.

game is United We Stand. The World Game is mankind's first historical attempt to solve whole-earth problems, not just local ones (because no problem is exclusively local), and on a scale previously available only for war gaming. The object of the World Game is to make the world work successfully for all human beings. "The objective," Fuller explains, "is to explore for ways to make it possible for anybody and everybody in the human family to enjoy the total earth without any human interfering with any human and without any human gaining advantage at the expense of another. The programs that the computers will select as being most favorable for all humanity will go far beyond man's ignorant ways of assessing what he 'can afford.' The computers will demonstrate that he can afford nothing short of the best, which is to make spaceship earth a successful environment for man. If anyone playing the game employs ideological biases and attempts to enforce the dominance of one by another, that player will be disqualified. The game must be won by peaceful means, by the use of intelligence and proper use of our resources. The players will not compete. They will engage in cooperative exploration to see how all humanity can win a successful, pollution free life."

Fuller asserts, after fifty years of study, that science has proven this possible. He asserts also that world history during these seventy years of the 20th century has proven that mankind increasingly accomplished more with less, thus nullifying the universally-accepted Malthusian dictum that there's not enough to go around, that we must survive by a system of economics of scarcity. Fuller points to the fact that humanity has progressed from one per cent living in appreciable health and comfort in 1900 to forty-four per cent currently living at a higher standard than ever before —while at the same time the earth's physical resources have been steadily decreasing. Since this was not the objective of any nation, it is obviously the result of science and industry doing ever more with ever less.



#### THE WORLD GAME

For fifty years Fuller has been compiling an inventory of world resources, both physical and metaphysical. For the past two decades he's had a large staff and computer facilities, and the World Resources Inventory has become the world's most comprehensive collection of information about the status of planet earth. (A partial cross-section of this information is available in the six-volume set of "World Design Science Documents," published at Southern Illinois University.) It includes all the known amounts and locations of the physical resources of earth, their rates of consumption and regeneration, as well as all the metaphysical resources as represented by mankind's ideas, concepts and theories throughout history. It contains trends, known human needs, fundamental behavior characteristics as determined psychologically, anthropologically, ecologically and sociologically. It includes trends in population growth, population migration, birth and death rates globally, all political events, trends and consequences, all socio-economic developments around the whole earth.

On the basis of this totally comprehensive time/energy continuum, players will formulate World Game "moves in terms of variable solutions to the problems based on availability and development of resources at present and in the future, always doing more with less. A move which does not accomplish more with less will be considered invalid. These solutions will constitute individual "sessions" or playings of the game, but they'll never be added up or offered as "answers." Instead they'll be reinserted into the computers where they'll be evaluated against the many other incoming solutions. The game will never end. The overall program simply will be continually modified to accomodate mankind's increasing metaphysical wealth as represented by World Game solutions, which in turn will mean greater control over our physical destiny without resorting to ideological premises.

A branch of the World Game effort will be devoted exclusively to disseminating its findings to the communication channels of the world—+ the intermedia network of television, radio, newspapers and magazines——in ways which will dramatically relate World Game discoveries to political and social events occurring simultaneously. For example, it will be possible to prove with undeniable scientific accuracy that a food shortage in a particular section of India was the result of this or that political maneuver. It is expected that within five to ten years the World Game will have attained such a high degree of analysis and evaluation that the entire physical and metaphysical events of the day may be explained and solutions offered on a daily basis concurrent with the evening news.

Fuller: "Politicians are going to confess the obvious-that no human beings can keep in mind all the special interests of all people and all the whereabouts and unique behaviors of all the resources of earth. No human beings can persuade other people to behave in unfamiliar, untried ways, but the computer can integrate and disclose the critical information and be completely convincing. ... As the World Game is played progressively it will disclose a myriad of politically untried, unprecedented yet effective ways of solving hitherto unsurmountable problems. These will become big news items of the world's press and international wire services. As man gets into more critical proximity to a full-scale World War Three, the people of the world will begin to say in increasing numbers, 'Now that we can see a way in which this and that can be done, we must obviously adopt the policies indicated by the World Game." Popular pressures, will gradually force world politics to yield to these mutually-beneficial World Game programs."

When the energy input of an area is raised, there is a corresponding rise in communications capacity which in turn increases the necessity of the "have-nots" to become "haves." (In 1938 Fuller determined that when the equivalent of the work that could be done by 200 human slaves was available in electrical and other energy units used by a family of five, that family is included among the "haves.")

In the scenario, the vast hydroelectric potential of both South America and Africa is utilized to raise their respective levels to the per capita figure of 2000 kwh, and the surplus is transmitted via the electric network to areas where there are deficits of electric power. Because we do not have a global network at the present time, the U. S. and other industrialized countries produce and use during the night hours only a small percentage of their electrical power capacity. With a global electric grid, power could be generated at day and night total capacity and transmitted to the daytime peak needs around the earth. (Using our present 'echnology, can we provide electrical needs for everyone without polluting our air beyond endurance? What is pollution?)

The efficiency would be somewhere between the U. S.'s (feeding about two people per acre) and Japan's (feeding six people per acre). It would be difficult to raise the world's efficiency to that of Japan's, using her methods, because a tremendous amount of manpower would be drawn into agriculture. (Approximately 40 per cent of Japan's people are engaged in agriculture as opposed to nine per cent in America.) There are many new ways to produce food. Examples: using algae (chlorella and others) for food; feeding bacteria plant wastes such as stalks, sawdust, and letting them convert these to food for man; and synthesizing amino acids. However, we didn't employ them in our scenario because we did not want to make a move which would assume changing people's food habits.

At present, most of the important variables in farming are not controlled because the system is as yet open. In a closed system such variables as weather effects, insect pests, loss of water and nutrients would be controlled, or the detrimental effects eliminated. One experimental system could feed 500 people per acre—which would mean a population of six billion people could be fed using only 24 thousand square miles of land. (We're now using around 7 million square miles.) This would be approximately the area Japan uses to feed her people today.

Given enough electrical power, the external metabolics, the earth could feed as many people as she needed—up to 7.8 trillion, for example, on presently-farmed land using the aforementioned experimental system. From this scenario we went on to examine some of the effects these scenarios would have on other areas of man's life.

Fuller admits that mankind may already have violated its occupancy of spaceship earth beyond the point of tolerance. Of all the trends and patterns which his work has revealed, none stands out so clearly as that of man's inherent blindness, ignorance and indiscretion. Never in history has mankind consciously behaved in its own interest, but rather has stumbled blindly and accidentally into success, leaving a trail of waste and pollution. But time has run out. This wheel's on fire, and it's rolling down the road. "Our greatest problem," he says, "is the educational problem of getting man to realize in time what his problems are, and what the most effective priorities may be for saving them."

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### **Enter Réné Dubos**

**E**<sup>N</sup> GARDE, pessimists! Réne Dubos, who has dueled to the death a myriad of killers invisible to the naked eye, sees clearly the threats to the environment—yet remains an optimist. Having lived almost all but one of the years to date of the disillusioning 20th century, he still believes that man is a noble work. Even the warning of his friend and early hero, Lewis Mumford, that human beings are rapidly falling victims to a megatechnic civilization run amuck, cannot shake his faith in the future.

BUT more and more in recent years, as surroundings and events have made pessimists of great numbers of human beings, Dubos has shifted his preoccupations from the precise biochemical definitions of the conditions that determine susceptibility and resistance to disease to problems of a more ecological character which concern the effects on men of surroundings and events. Dubos sounds

his warning calmly but unmistakably, in lectures, in his own books and articles, and in a foreword to a book that he feels should reach a wider audience, "Peril on the Job," by Ray Davidson, an exposé of the terriblê toll taken by occupational sickness and accidents in the factories, mines and shops of the nation.

"We shall experience human and ecological disasters unless we learn to give as much attention to man and the environment as we do to the production of goods," wrote Dubos in that foreword. "This requirement need not interfere with the efficiency of the technological enterprise and the maintenance of high living standards.

"I went to Richmond to speak last year," said Dubos, "and afterwards I received joint letters from groups of citizens who wanted me to help them achieve some kind of integration between community and college." Up to four years ago, Staten Island still contained operating farms with livestock; but since the opening of the Verrazano Bridge seven years ago, the population of the island has doubled and today high-rises are going up where there had been farm-land.

At the same time, the Staten Islanders are building a community called Richmond Town that will show. in art exhibits and buildings preserved, the progress of New York from the time the Dutch landed to the present. They have already moved into Richmond Town the island's pride-the oldest schoolhouse in the United States. For an environmentalist like Dubos, the invitation was irresistible. "They feel I can help them create on Staten Island a community that will have the continuity of the old community," he said, "so I'm going to work at Richmond College."

oing to work at Richmond College.



N "Man Adapting" (1965) and its 1968 sequel, "So Human an Animal"—for which he shared the Pulitzer Prize for general nonfiction with Norman Mailer in 1969—Dubos spelled out the danger he had seen in man's remarkable capacity to adapt to new conditions: that we may suffer pathological damage in adjusting to a polluted environment, that we may lose our very "humanness" to our mechanized surroundings.

Suddenly Dubos was being proposed as the person who could bridge the gap between scientist and humanist, old and young. "Because he is almost as much at home in philosophy and literature as in his specialty, he can relate, as few others can, the 'two cultures," wrote the critic and naturalist Joseph Wood Krutch, reviewing "So Human an Animal." "I have read no other book which so clearly explains why science is indispensable but not omnicompetent." -

66 'I think that when you recognize a problem, when you are willing to try all sorts of things, you succeed.'99

> "Urban dwellers never have the chance to see the Milky Way, or a night radiant with stars, or even a truly blue sky," he says. "They never experience the subtle fragrances peculiar to each season; they lose the exhilaration of early spring and the delightful melancholy of autumn. The loss of these experiences is more than an esthetic affliction; it corresponds to a deprivation of needs which are essential to physical and mental sanity, because they are indelibly woven in man's fabric during his evolutionary past."



## To Let Others Know We Are Here

The message is designed to be decipherable to any scientist, regardless of his physiognomy, history or location in space and time. The symbol, upper left, draws attention to the two states of the hydrogen atom as the unit of time (radio frequency) and distance (wavelength) to be

used. The star-like diagram shows the position of the earth relative to 14 pulsars. These are stars that emit radio pulses at regular (though in some cases slowly changing) rhythms. Solid lines indicate the relative distances of these pulsars. The dashed extensions of these lines are marked with tics indicating the rate at which that pulsar is pulsing. The rate could be used to identify each pulsar, much as each lighthouse has its characteristic rhythm. Since a few pulsars are slowing their rate, the message also indicates roughly the time of launch.

The long horizontal line extending to the right behind the two figures indicates the direction to the center of the Milky Way Galaxy. The figures stand in front of a schematic diagram of the spacecraft with its dish-shaped antenna to give an idea of the dimensions and appearance of earth's inhabitants. The man's hand is raised in friendly salute. Below is a representation of the solar system with the sun at the left, showing that Pioneer 10 was launched from the third planet out from the sun and then was thrown out of the system by Jupiter's gravity.







It seems pretty clear to us as women that from the moment we're born, we're treated differently from little boys. Our toys are different. Dolls instead of chemistry sets. Our clothes are different – little dresses to be kept clean instead of sloppy pants. And slowly, over the years, a distinction is made between boys and girls on every dimension. We're emotional; they're intellectual. They're clumsy; we're graceful and dainty. They're going to go on to become doctors and business men. We're going to get married. The most ambitious among us dreamed of nursing. They're athletic. We're domestic. They have an easily wounded ego. We're good at soothing. In short, men were socialized to think of themselves as intellectual, aggressive and creative, while women are molded as passive, gentle, and emotional. OK, you say, that's not so bad. Separate but equal characteristics. We don't think that's true. We think we've suffered by this characterization of us as passive creatures, noticeably in relation to our sexuality. We're not supposed to be interested in sex — that's for men. We're not supposed to admit it if we are — that's dirty. The ideal woman responds, she does not initiate. Men will act aggressively towards us sexually, and we must worry about how to set the limits on the sexual encounter. We're always so busy setting the limits and holding off this powerful sexuality coming from him, that we never get a chance to explore our own. Our bodily functions and our own sexuality are always something of a mystery to us.



How to Make Your Own Incense.

#### SUPPLIES

*Punks.* These are slender bamboo splits, their upper half coated with a flammable mixture of wood pulp, vegetable matter, and tree resin. Punks are handmade and imported from Hong Kong. They are lighted just as you would incense (put a match to the head; let it burn for a few seconds; then blow it out.) to fend off mischievous insects like mosquitos and gnats. If your city has a Chinatown, you'll find punks easy and inexpensive to obtain. Or, you could use punks as another item on your list of reasons why your husband should take you to California.

*Incense oils.* Here, there's a lot of variety. Scented oils can be the essence, the extract, or a synthetic copy of the thing they smell like. The essence is the real thing. It's the oil of real roses. Or real musk glands. And it is usually very ezpensive. A pound of musk oil might cost \$2000. You need imagination to find them. Often, small gift shops sell synthetic essences in small qantities. Their manufacturers, again in very large cities, sell to the public. But you must buy large (about ten pounds) quantities. (But, wouldnt incense be a great club fundraising project?)

Craft and hobby shops often sell scented oils for use in candlemaking. We advise that some such oils will work. Buy a couple of different scents and try them out.

Soak punk sticks in essence of il for 10 minutes. Oil can be gotten in some head shops, spice stores or drug store that sell scents for candel making. Oils are expensive, but they can be diluted with vegetable or mineral oil. After soaking hang upside down and let dry for a day... Then light up.

Information curtesy of Jacob Shweisky. "Gentle Jake Natural Incence" 60 East 3rd Street, New York City



# Richmond College

# The City University of New York

Know all men by these presents, that The Board of Higher Education of the Lity of New York upon recommendation of the faculty confers upon

having completed the course of study and satisfied the requirements of this College for the degree of

is hereby admitted to that degree with all the rights and privileges thereto pertaining. In witness whereof the seal of the University and the signatures of its officers have been hereto affixed. /

Frederick Busklardt

West H. Bain Chancellor of the University

Dean of the R



Bated at the City of New York, this sixteenth day of January, nineteen hundred and seventy.



THERE was once a dervish who embarked upon a sea journey. As the other passengers in the ship came aboard one by one, they saw him and —as is the custom —asked him for a piece of advice. All the dervish would do was to say the same thing to each one of them: he seemed merely to be repeating one of those formula which each dervish makes the object of his attention from time to time.

The formula was: 'Try to be aware of death, until you know what death is.' Few of the travellers felt particularly attracted to this admonition.

Presently a terrible storm blew up. The crew and the passengers alike fell upon their knees, imploring God to save the ship. They alternately screamed in terror, gave themselves up for lost, hoped wildly for succour. All this time the dervish sat quietly, reflective, reacting not at all to the movement and the scenes which surrounded him.

Eventually the buffeting stopped, the sea and sky were calm, and the passengers became aware how serene the dervish had been throughout the episode.

One of them asked him: 'Did you not realize that during this frightful tempest there was nothing more solid than a plank between us all and death?'

'Oh, yes, indeed,' answered the dervish. 'I knew that at sea it is always thus. I also realized, however, that I had often reflected when I was on land that, in the normal course of events, there is *even less* between us and death.' The Man Who Was Aware of Death



