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Museum cards - Leonardo da Vinci and Rembrandt, a della Robbia in shining white, a panel of angels and golden spires against a starlit sky, lotus flowers, emerald and sapphire stained glass from the chapel of a medieval castle, the Three Kings in scarlet, pink, blue, and gold, a lute player, lion, pear tree and fountain in silk, and a Winslow Homer skating party are among the sixty designs. ₹ The cards, printed in limited editions, cost from 5 to 95 cents each, and can be bought only by mail or at the Museum itself. Mail the coupon below, together with 25 cents, for the 40-page catalogue which illustrates Museum jewelry, the Museum engagement calendar, and other unusual Christmas presents.

The Metropolitan Museum of Ar	t
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It was not known last week whether Dr. Paine would be appointed Webb's formal successor for the rest of President Johnson's term. With the Apollo program coming around the bend, however, his scientific background could make him just the administrator NASA needs for the long, lean haul.

HANGOVERS, TOO

## Tranquilizer fights alcohol

Physicians commonly warn their patients against combining alcohol with tranquilizers, and with good reason. They generally act together on the same brain system and with similar effects—one heightening the other.

But strangely enough, one popular tranquilizer, Librium (chlordiazepoxide), has exactly opposite action in the brain. It counters the effects of alcohol in every brain structure tested so far, and appears to counteract intoxication as well as hangovers.

This discovery was presented to the International Congress on Alcohol and Alcoholism meeting in Washington last week

Dr. Leonard Goldberg, chairman of research at Stockholm's Karolinska Institute, tested the combined effects of the drugs only on normal volunteers, and says his evidence cannot be applied to alcoholics. Nor would he recommend to anyone that this tranquilizer be taken to sober up or prevent hangovers, but it does offer a promising avenue of research in the quest for drugs to counter the effects of alcohol.

The Karolinska finding is based on studies of both animals and humans and includes direct investigations of the brain, as well as subjective and behavioral measurements. On all counts, Librium reverses the effects of alcohol.

It reduces body sway and eye jerks resulting from intoxication and counters the depressant effects of alcohol on the central nervous system. In addition, 16 volunteers tested with five ounces of whisky, plus small doses of Librium, subjectively rated themselves less intoxicated than they normally would feel with that amount of liquor. But with meprobamate (Miltown, Equanil), they rated themselves as drunker.

Alcohol first acts on the brain at the gates of sensory awareness by weakening the filter which blocks out extraneous stimulation. Further into the brain, alcohol depresses those centers controlling wakefulness and vigilance, while at the same time it excites the emotional centers and cortex. Thus alcohol works mainly by depressing the brain's inhibitory systems. The drunken individual makes less sense out of his environment because his filters

and alertness are depressed. But activity within the brain itself is excited.

At each stage Librium has opposite effects.

Dr. Goldberg believes this evidence may throw some light on neurosis. According to some theories, he says, the neurotic individual has a defective sensory filtering system. One way to treat the condition, says Dr. Goldberg, may be with a drug that strengthens the filtering mechanism.

**OLYMPICS** 

## Sex test inconclusive

American athletes at the upcoming Olympic Games in Mexico City will be carefully fed, handsomely housed, dosed against diarrhea and will probably set some records. But they may not know what sex they are.

The question of whether certain female athletes are in fact female will certainly arise during medical examinations at the Olympics, Dr. Keith L. Moore of Winnipeg, Canada, states in a special issue of the Journal of the American Medical Association.

Females have been declared ineligible, he says, for no other apparent reason than the presence of an extra chromosome, presumably in the sex chromosome complex.

"This seems grossly unfair," Dr. Moore says, "if other criteria of sex conform with the person's social sex."

In most individuals, he declares, these nine components of sexual phenotype conform with one another: external genital appearance, internal reproductive organs, structure of the gonads, endocrinologic sex, nuclear sex, chromosomal sex, psychological sex and social sex.

In persons of abnormal sexual development no single index or criterion can signify the appropriate sex. For this reason, buccal smears (samples from the inside of the cheek), reflecting chromatin or nuclear sex, or chromosomal analyses, indicating chromosomal sex, cannot be used as indicators of true sex, Dr. Moore says. (This kind of criterion was used last year to disqualify Polish track star Ewa Klobukowska from the Women's European Athletic Cup competition.)

When should females be declared ineligible? Although it is difficult to generalize about this, Dr. Moore says "certainly chromatin-negative females with a Y chromosome (a gene found in the male sperm), who exhibit advanced virilism, such as male-like external genitals and physique, or unusual growth of hair on the face, or who have levels of plasma testosterone identical to that of males, should be ineligible."

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