THE DIGEST

A Newsletter for The Interdisciplinary Study of Food

Volume III No. I Fall 1980

As all good editors eventually leave for greener pastures, so unfortunately have The Digest editors, Janet Theophano and Leslie Prosterman gone their seperate ways. Both Janet and Leslie helped found The Digest and for two years worked extremely hard to make the newsletter the important publication it is today. The new editors, Karen Creuziger, Mario Montano, and Devorah Sperling regret their leaving and will miss their help. Our format is changing slightly and we hope to be able to offer our readers one in-depth paper per issue. This time we have a wonderful article on the cultural parallels of caffeine and alcohol by Walter Randolph Adams. Since the course supplement (Summer 1980) generated so much material, we were unable to publish it all at once. As a result, we are including Barbara Kirshenblatt-Gimblett and Janet Theophano's course outline HOMO GASTRONOMICUS in this issue. Subsequent course outlines will appear in later issues. We are also continuing our usual body of announcements, publications, notes and queries, and meetings. Reader's comments and Letters to the Editors are welcome and we wish you pleasant reading.

The Editors

TABLE OF CONTENTS

Homo Gastronomicus

HOMO GASTRONOMICUS: An Introduction to Folklore and Culture through the study of food.

INTRODUCTION

Food is a nexus of human activity in which aspects of culture, society, and the material world converge. The relationship of food to the other, multiple systems which comprise human societies, makes it an appropriate point of entry for an exploration of the nature of man, culture, and society. Ecology and subsistence, food selection, preparation, and consumption are integrally related to human and cultural evolution, to social structure, and to the aesthetics, logic, and meanings represented by and underlying cultural patterns.

Food is an ideal focus for probing vital controversies in anthropology and folkloristics: adaptation and the biological implications of nutrition, ecological determinism, the origins of agriculture, the origins and nature of food avoidances and taboos, and culture as a semiotic system. These topics involve the issues of: the nature of human societies and culture, cultural variation and universals, cognition; historical change, its imposition, documentation, and reconstruction; and the nature of explanation in the social sciences: origins, development, and function.

This course is designed to explore the basic concerns in anthropology and folkloristics through an examination of food concepts and behavior cross-culturally and in several historical periods.

The course readings are supplemented by films, field trips, and special events. Assignments include:

a. take-home questions for several units of readings
b. class debates
c. ethnography of food event or domain and/or ethnographic treatment of an eating event or scene in literature
d. preparation of one symbolic food for class
e. gastronomic memoir/restaurant review
f. creating a cookbook from foods brought to class
g. mapping a kitchen: material culture and the use of space
h. staging and analyzing a scene from a drama/literature/skit written by class.

SUPPLEMENTARY EVENTS

The events are scheduled as case studies related to the unit or session which is treated. Events can occur in or out of the classroom depending upon the time of year and the resources available. Some suggestions are the following:

1. Case Studies
   a. Life cycle ritual meals
      e.g., birthdays, baptisms, bar mitzvahs, etc.

b. Calendrical ritual meals
e.g., Easter, Christmas, Sabbath, etc. (Thanksgiving)

c. Historical feasts
e.g., Passover, Nineteenth Century dinner, medieval feast

d. Other ritual events in which food is a feature
e.g., Military officers' wives teas, Japanese tea ceremony, family dinners

2. Compare the events and the convention which informs each kind of event; i.e., does the event require versimilitude to another meal or event in time and space; is innovation and novelty a desideratum or anathema?

3. Field trips
a. Outdoor markets: an opportunity to see and experience older technologies (traditional) like baking in hearth ovens, locally made cheeses, wine, matzohs, and pickles. Butchers, spice shops, homemade foods such as pastas and exotic foods, such as tofu (depending upon the perspective, of course) are sometimes available in local ethnic and outdoor markets.

b. Living historical museums, including farms and historical houses.

For both of the above field trips a call ahead can afford an opportunity to experiencing the slaughtering of an animal, the baking of bread, the preparation of food stuffs in an open hearth, etc. Prearrange times of the class trip to coincide with events scheduled by the farm, house or shops in the market.

c. Restaurant School/supply house
An opportunity to experience the problems and solutions to large-scale institutionalized eating. Trends such as the gourmet or haute cuisine movements in America can be viewed from the perspective of those who create the foods and the ambience.

d. Cooking School
A local classical school may provide similar or different experiences for the class, both may be examples of revitalization movements in several different cuisines.

e. Tour of local neighborhoods involving several of the above and perhaps closing with a meal in a local restaurant.

4. <u>Food in class</u>

a. Symbolic food: everyone signs up to bring in one item of food: include the source and description of the item and its significance, the recipe should be typed on a card to

be included in a class cookbook - to be used for session #15. i.e., challah, matzoh, margarttsa, kokoretsi, kolyvah, St. Joseph's cakes, litefisk, leeks, sashimi, koufeta, taralles, stollen, ricotta pie, turkey.

b. Everyone signs up to bring in one appropriate food item for one class session...

Session: #1/2 Problematic foods: rotten smelly, raw and unusual (in the American context,of course) i.e., chocolate-covered ants, fried bumblebees, fish heads or eyes, raw fish, or raw meat, etc.

#4 Potato (each recipe should differ in form and type) i.e., potato flour, starch, raw, mashed, etc. in the form of latkes, kugel, gnocchi, bread (baked, fried, boiled, etc.) Radcliffe Salaman, Potato Cookbook.

#5 Dairy (challenging cheeses) gjetost, leiderkranz, camembert, feta, limburger, etc.

As a result of the foods brought to class, a cookbook can be created in which class members organize, classify, and describe their experiences using this format. This process can be analyzed and discussed in session #15.

Homo Gastronomicus: An Introduction to Folklore and Culture

I. INTRODUCTION

History, geography, and variability of diet
Session 1
READ: Bradfield and Lauriault; Bernard; Chang; Lee 1968; Stefansson.
RECOMMENDED: Tannahill; Wilson.

Session 2
Food Systems as a field of study
READ: Manual for the study of food habits, 31-52.
RECOMMENDED: Bennett 1946; Haas and Harrison; Montgomery 1978; Montgomery and Bennett.

II. EATING TO LIVE: Evolution and Diet
Session 3
Diet of non-human primates and early hominids; subsistence patterns of

prehistoric and modern hunter gatherers
READ: Jolly 1972; Sahlins 1972, Chapter I.
RECOMMENDED: Alland; Y. Cohen; Kolata.

Session 4
Emergence of agriculture; historical transformations -- the case of the potato
READ: M. Cohen, 1-18; Haas and Harrison; Salaman 1952.
RECOMMENDED: Braudel; Katz et al.; Rappaport 1974; Salaman 1949; Ucko and Bimbleby.

TAKE HOME QUESTION #1 DUE

III. EATING TO LIVE OR LIVING TO EAT?
Food Preference and Avoidance

Session 5
Milk and Cows
READ: Harris 1974; Simoons 1979.
RECOMMENDED: Harrison.

Session 6
Pigs: Lovers and Haters: The Great Debate #1
READ: Douglas 1966; Harris 1974.
RECOMMENDED: Diener and Rabkin; Leach; MacArthur; Rappaport 1967; Sahlins 1978; Soler; Tambiah; Young.

Session 7
Cannibalism: The Great Debate #2
READ: Harris 1977; Swift
RECOMMENDED: Arens; Chagnon; Harner; Harris and Sahlins 1979; Sahlins 1978; Tannahill 1975.

TAKE HOME QUESTION #2 DUE

IV. LIVING TO EAT: Food for thought and pleasure

Session 8
Structure, elaboration, aesthetics, and meanings of food systems
READ: Douglas and Nicod; Leherre; Levi-Strauss.
RECOMMENDED: Bulmer; Douglas 1966, 1972; Huntsman; Leach; Lin and Lin; Tambiah; Verdier.

Session 9
Articulation of food system with other systems I:
Social structure and interaction
READ: Appadurai; Faris; Frake; Marriott; Wechsberg.
RECOMMENDED: Bennett 1943; Ortner.

Session 10
Articulation of food system with other systems II:
World View and Ritual

READ: Geertz; Kakuzo 19-34, 53-73, 109-116.
RECOMMENDED: Anderson; Bonnet; Douglas 1966; Firth; Khare, Richards; Tsuji.

Session 11
Case Studies I and II: Medieval feasts and nineteenth century dinners
READ: Cosman; Douglas.
RECOMMENDED: Aron; Beeton; Hennisch.

Homo Gastronomicus

*** ASSIGNMENT #1: Ethnography Due

Session 12
Case Study III: Italian American
RECOMMENDED: Bianco; Fratto; Joffee and Nizzardini; Root; Theophano; Williams.

Session 13
The literature of gastronomy
READ: Brillat-Savarin 50-56; 161-171; Fischer 359-363; Proust; Trillin 13-23.

*** ASSIGNMENT #2: Gastronomic Memoir or Restaurant Review Due

Session 14
Food Scenes and Literature: fiction and drama
READ: Joyce, The Dead; Potok, The Chosen; Williams: The Glass Menagerie; Patrick: The Teahouse of the August Moon; The Diary of Anne Frank; Lillies of the Field; The Grapes of Wrath: Steinbeck
(Select one drama and one novel or suggestions (short story) or individual preferences are also acceptable.

Session 15
Food as Material culture/cultural artifact
READ: Pennsylvania Folklife; Bachelard, The Poetics of Space; Glassie, Folk Housing in Middle Virginia; Khare: The Hindu Hearth and Home.
READ: Schmidt, "As if a cookbook ..."

ASSIGNMENT #3 DUE: Mapping a Kitchen
Organizing the cookbook

Session 16
Class Food Finale

Cook and serve food after the performance of a scene from a drama or skit created by the class, i.e., a party.

Class Food Finale

The class will select a scene from a dramatic work, novel, etc. create their own skit and stage its production. The various roles within the drama and of those who stage it should illuminate the semiotic function of food. Character depiction and development, social relationships, and the nature of the occasion being enacted can emerge in the execution of the scene.

After the play an analysis of the event, in toto, can probe these issues. This event is designed to reveal to the class the semiotic nature of food.

Suggested works: cf. readings for Session #14.

Take-home Questions

Please type your answers double-spaced. Answers may be from 3-5 pages long.

#1
Discuss 3 ways in which human diet shows an extreme range of variation and 3 ways in which human diet shows marked similarity cross-culturally. In your discussion of variability and universals in human diet, consider the following:

a) to what extant can the variations and universals you discuss be attributed to cultural, biological, or ecological factors?

b) to what extent can the variations and universals you discuss shed light on human and cultural evolution?

Support your argument with the readings, as well as other sources.

#2
Discuss the controversies surrounding milk, cows, pigs, and cannibals in human diet. Are they instances of the same problem? Or are there a variety of issues at work: ecological, biological adaptation, taboo, etc. which necessitate distinctions? Is this a problem of anthropological explanation: origins, function, and development among others?

Support your argument with the readings, as well as other sources.

An Ethnography of Food

Choice of one:

1. Ethnography of a food event or food domain in your own or another culture.

Select a setting: restaurant, cafeteria, dormitory, family dinner, street vendors, local market, baker, corner store and describe the scene in relation to questions which you wish to answer about the event, occasion, or domain.

Refer to the readings as a source for the kinds of questions and the appropriate ethnographic method. For example, the readings for Section IV, Sessions #8, 9 and 10.

2. Choose a novel or drama, discuss the ways in which food and eating are presented and the role of food and eating in the novel as literary work. What can be inferred from the novel regarding the role of food and eating in culture?

   Include in your ethnography ideas about what constitutes adequate description.

Food as Material Culture

The Cookbook: A class cookbook based on the recipes used in the various events can be created. This will require students to organize and classify the foods according to several dimensions: historical, cultural, event. In assembling the cookbook students can discuss the issues surrounding the cookbook as a cultural artifact. This poses interesting problems in historical reconstruction.
Ref. Paul Schmidt, "As if a cookbook . . . " cf Session #15

Mapping a kitchen: Students should diagram and describe a kitchen: in their own homes, dormitories, apartments or another culture. The storage and placement of implements and the kitchen in relation to other spatial areas in the home or institution should be stressed; the total spatial configuration should be considered in the analysis.
Refer to Pennsylvania Folklife and the field guides presented in many of the issues.

Gastronomic Memoir

Select an event or occasion related to food and/or eating from your experiences. This is an opportunity to reflect on your humaneness in several ways: autobiographically, philosophically, and metaphysically. The readings in this unit should stimulate and evoke memories and reminiscences in your own gastronomic life and provide models for creating your own "literature of gastronomy" itself part of the culture of food.

Restaurant Review

Choose a familiar or unfamiliar restaurant and describe the experience of eating there, as if you were a restaurant reviewer for the newspaper. The audience is of your own choosing. Be elaborate in your discussion of the setting, layout, menu selection, mode of presentation and the

illusion or lack of it created in the ambiance. This is an opportunity to reflect on aesthetics and mood, the expectations which are met or disappointed by your experience, and the appropriateness of your responses for the audience.

Be explicit about the circulation, i.e., readers of this publication you have selected.

THE GREAT DEBATES

The issues central to food avoidances and taboos can be argued in a classical debating format. In session #6, in which all of the class participates, the class is divided into halves. One half debates the pig issue and in session #7, the other half, debates the cannibal issue. The debate topic for the session is formulated and pro and con teams are formed. Those not debating in a given session evaluate the number of points of the argument addressed by each team and the cogency of the arguments. A total score for each team determines the winners.

Regardless of the number of people in a team (which should not exceed nine)

the pro position is presented by four speakers
the con position is presented by four speakers
the pro position presented by four speakers
the con position presented by four speakers
the pro summation presented by one speaker
the con summation presented by one speaker

THE GREAT DEBATES: PIGS AND CANNIBALS

PIGS

Pigs are an often neglected source of food, therefore pig eating should be encouraged.

Diener, P. and Robkin, E.E. 1978 "Ecology, Evolution, and the Search for Cultural Origins: The Question of Islamic Pig Prohibition," Current Anthropology 19(Sept):493-52.

Harris, M. 1974 Cows, Pigs, Wars, and Witches, New York: Random House.

Alland, A. 1975 "Adaptation," Annual Review of Anthropology, 4:59-73.

Douglas, M. 1966 "The Abominations of Leviticus," Purity and Danger, Baltimore: Penguin.

Douglas, M. 1972 "Deciphering a Meal," Daedalus, Winter, 61-81.

Rappaport, R. 1967 Pigs for the Ancestors, New Haven: Yale.

Simoons, F.J. 1967 Eat Not This Flesh, New York: Macmillan.

Soler, J. 1979 "The Semiotics of Food in the Bible," Food and Drink in History, ed. by R. Forster & O. Ranum, Baltimore: Johns Hopkins.

Harris, M. 1979 Cultural Materialism: The Struggle for a Science of Culture, New York: Random House.

Sahlins, M. 1976 Culture and Practical Reason, Chicago: University of Chicago Press.

THE GREAT DEBATES: PIGS AND CANNIBALS

CANNIBALS

Humans are an often neglected source of food, therefore cannibalism should be encouraged.

Swift, J. 1729. A modest proposal for preventing the children of poor people in Ireland from being a burden to their parents or country; and for making them beneficial to the public. In Gullivers Travels and other writings. New York: Modern Library (1958).

Tannahill, R. 1975. Flesh and blood: a history of the cannibal complex. London: Hamish Hamilton.

Harris, M. 1978. Cannibals and kings. New York: Random House.
New York Review of Books

Sahlins, M. "Culture as protein and profit."
NYRB, Nov. 23, 1978:45-53.

Sahlins, M. and Harris, M. 1979. "Cannibals and kings: an exchange."
New York, Random House, June 28, 51-53.

Arens, W. 1979. The man-eating myth: anthropology and anthropophagy.
New York, Oxford. Review in the New York Times Book Review Section (xerox).

Harner, M. 1977. "The ecological basis for Aztec sacrifice." American Ethnologist (February).

Harris, M. 1979. in Natural History Aug/Sept.

Garn, S. and Block, W. 1970. "The limited nutritional value of cannibalism." American Anthropologist 72.

Crawford, M.A. and Rivers, J.P.W. 1975. "The protein myth." In the Man/food equation. Ed. F. Steel and A. Bourne. NY: Academic Press.

Chagnon, N. 1979. "Protein deficiency and tribal warfare in Amazonia: new data." Science 203:910-913.

PROCEDURE FOR THE DEBATE

For four speakers:

Speaker	Time	Argument
1A	10 minutes	Pro
1B	10 minutes	Rebuttal
2A	10 minutes	Pro
2B	10 minutes	Rebuttal
	3 minute break	
1B	5 minutes	Rebuttal
1A	5 minutes	Pro
2B	5 minutes	Rebuttal
2A	5 minutes	Pro
	Total: 63 minutes	

EVALUATE ON:	POINTS
1. Clarity of argument	6
2. Intellectual cogency and quality of evidence	8
3. Speaking style and rebuttal precision	4
4. Humor and wit	2

Folk Foodways
Folk 444
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Janet Theophano
University of Pennsylvania

Reading List

Required.

Anon. 1872. "Etiquette: Dinner Party," in Modern Etiquette in Private and Public. Pub. Frederick Warne. 216-218.

Bernard, B.J. 1975. "Peasant Diet in Eighteenth Century Gevaudan," in European Diet from Pre-Industrial to Modern Times. Eds. Elborg and Robert Forster. 19-46.

Cohen, Mark Nathan. 1977. The Food Crisis in Prehistory. New Haven: Yale University Press. 1-17.

Cosman, Madeleine. 1976. "Fabulous Feasts: Settings, Servings, Subtleties, Menus and Marvels," in Fabulous Feasts: Medieval Cookery and Ceremony. New York: G. Braziller. 11-37.

Douglas, Mary, and Nicod, Michael. 1974. "Taking the biscuit: The Structure of British Meals," New Society.19 (December, 1974):744-747.

Douglas, Mary. 1966. Purity and Danger: An Analysis of Concepts of Pollution and Taboo. Baltimore: Penguin. Chapter3: "The Abominations of Leviticus." 41-57.

Faris, J.C. 1968. " 'Occasions' and 'Non-Occasions,' " in Rules and Meanings. Ed. Mary Douglas. Baltimore: Penguin Modern Sociology Readings. 45-59.

Frake, C.O. 1964. "How to ask for a drink in Subanum." American Anthropologist. 66(6), part 2:127-132.

Freeman, Michael. 1977. "Sung," in Food in Chinese History: Anthropological and Historical Perspectives. Ed. K.C. Chang. New Haven: Yale University Press. 142-176.

Fuller, D. 1978. Maori Food and Cookery. New Zealand: A.H. and A.W. Reed. 1-19.

Geertz, Clifford. 1960. "The Slametan Communal Feast as a Core Ritual," in The Religion of Java. Chicago: University of Chicago Press. 11-15.

Haas, Jere D., and Harrison, Gail G. 1977. "Nutritional Anthropology and Biological Adaptation." Annual Review of Anthropology. 6:69-101.

Harris, Marvin. 1977. Cannibals and Kings: The Origins of Cultures. New York: Random House. Chapter 9: "The Cannibal Kingdom." 99-110.

_____. 1974. Cows, Pigs, Wars, and Witches: The Riddles of Culture. New York: Vintage-Random House. Chapters: "Pigs: Lovers and Haters," 35-57., "Milk and Cows," 11-32.

Jolly, Alison. 1972. Food: The Evolution of Primate Behavior. New York: MacMillian.

Kakuzo, Okakura. 1962. The Book of Tea. Vermont: Charles Tuttle Company. Chapters: "The Schools of Tea," 19-34., "The Tea Room," 53-73., "Tea-Masters," 109-116.

Lee, Richard B. 1968. "What hunters do for a living, or, how to make out on scarce resources," in Man the Hunter. Eds. Richard B. Lee, and Irven DeVore. Chicago: Aldine. Wenner-Gren Foundation for Anthropological Research, Inc. 87-100.

Lehrer, Adrienne. 1969. "Semantic Cuisine," Journal of Linguistics. 5(1): 39-55.

Levi-Strauss, Claude. 1966. "The Culinary Triangle." Partisan Review. 33(4):586-595.

Marriot, McKim. 1968. "Caste Ranking and Food Transactions," in Structure and Change in Indian Society. Eds. Milton Singer, and Bernard Cohen. Chicago: Aldine-Atherton. 133-171.

Mead, Margaret. 1945. Manual for the Study of Food Habits. Washington, D.C.: National Academy of Sciences. Chapter 3: "Context for the Collection of Data." 31-52.

Proust, Marcel. "The Reminiscence of the taste of tea and cake," in Swann's Way. Chapter: "The Old World, 1700 to Today."

Sahlins, Marshall. 1972. Stone Age Economics. Chapter 1: "The Original Affluent Society," 1-39. Chapter 2: "The Domestic Mode of Production: The Structure of Underproduction," 41-97. (Chicago: Aldine-Atherton).

Salaman, Redcliffe N. 1952. "The Social Influence of the Potato," Scientific American. 187(6):50-56.

Simoons, Frederick J. 1979. "Dairying, Milk Use, and Lactose Malabsorption in Eurasia: A Problem in Culture History." Anthropos. 74(1/2): 61-80.

Swift, Jonathan. 1958. Gulliver's Travels and Other Writings. Chapter: "A Modest Proposal, written in the year 1729." 488-496.

Wechsberg, Joseph. 1953. Blue Trout and Black Truffles. London: Victor Gollanez, LTD. Chapter: "Tafelspitz for the Hofrat." 70-82.

Recommended.

Alland, Alexander. 1975. "Adaptation." Annual Review of Anthropology. 4:59-73.

Anderson, E.N., and Marja. Cantonese Ethnohoptology." Ethnos. 34:107-117.

Arens, W. 1979. The Man-Eating Myth: Anthropology and Anthropophagy. New York: Oxford University Press. (also check review in the N.Y. Times Book Review.)

Bennett, M.K. 1955. "The Food Economy of the New England Indians." Journal of Political Economy. 63:369-397.

Bonnet, Jena-Claude. 1979. "The Culinary System in the Encyclopedia," in Food and Drink in History. Eds. Robert Forster, and Orest Ranum. Baltimore: Johns Hopkins University Press. 139-165. Article also in Annales. E.S.C. 32(Sept.-Oct. 1977):891-914.

Bradfield, R.B., and Lauriault, J. 1961. "Diet and food beliefs of Peruvian jungle tribes: The Shipibo (monkey people)." Journal of the American Dietary Association. 39:126+.

Braudel, Fernand. Capitalism and Material Life, 1400-1800. New York: Harper-Colophon. 1973.

Brillat-Savarin, Jean Anthelme. 1960. The Physiology of Taste. New York: Dover Publications. Chapters: "On the Pleasures of the Table," 131-140., "On Gastronomy," 33-38.

Bulmer, R. 1967. "Why is the cassowary not a bird? A Problem of zoological taxonomy among the Karam of the New Guinea Highlands." Man. New Series. 2(1), March 1967:15-25.

Chagnon, N. 1979. "Protein deficiency and tribal warfare in Amazonia: New Data." Science. 203:910-913.

Chang, K.C. ed. 1977. Food in Chinese Culture: Anthropological and Historical Perspectives. New Haven: Yale University Press. 87-140, 195-257.

Cohen, Yehudi. ed. 1968. Man in Adaptation: The Bio-Social Background. Chicago: Aldine.

Diener, Paul., and Robkin, Eugene E. 1978. "Ecology, Evolution, and the Search for Cultural Origins. The Question of Islamic Pig Prohibition." Current Anthropology. 19(3): 493-540.

Douglas, Mary. 1972. "Deciphering a Meal." Daedalus. 101(1), Winter 1972: 61-68. Issue: Myth, Symbol, and Culture.

Firth, Rosemary. 1966. Housekeeping Among Malay Peasants. New York: Humanities Press.

Fratto, Toni. "Cooking in Red and White." Pennsylvania Folklife. 19:2-15.

Harner, M. 1977. "The ecological basis for Aztec Sacrifice." American Ethnologist.

Harris, Marvin. 1979. "The Human Strategy." Natural History. 88(7), Aug.-Sept. 1979:30, 32, 34-36.

Henisch, Bridget. 1976. Fast and Feast: Food in Medieval Society. Pennsylvania State Press.

Huntsman, J. 1978. Tokelau Cuisine. Ms. Auckland: University of Auckland.

Katz, S.H., and Heduger, M.L., and Valleroy, L.A. 1976. "Traditional Maize Processing Techniques in the New World." Science. 187:765-784.

Khare, R.S. 1976. Hindu Hearth and Home. Durham: Carolina Academic Press.

Kolata, Gina Bari. 1974."Kung Hunter-Gatherers: Feminism, Diet, and Birth Control." Science. 185:932-934.

Leach, E. 1964. "Anthropological aspects of language: animal categories and verbal abuse," in New Directions in the Study of Language. E.J. Lenneberg, ed. MIT Press.

MacArthur, _____. 1974. "Pigs for the Ancestors." Oceania. XLV(2), December 1974:87-123.

Montgomery, Edward. 1978. "Anthropological Contributions to the Study of Food-Related Cultural Variability." Progress in Human Nutrition. Vol. 2. Sheldon Margan and Richard Ogar, eds. Westport, Conn.: Avi Publishing Co.

Montgomery, Edward, and Bennett, John W. 1979. "Anthropological Studies of Food and Nutrition: 1940's and 1970's." Session 5 in The Uses of Anthropology. Walter Goldsmidt, ed. Washington, D.C.: AAA Publication.

Ortner, Sherry. 1978. Sherpas through their Rituals, Boston: Cambridge Univ. Press.

Rappaport, Roy. 1967. Pigs for the Ancestors. New Haven: Yale Univ. Press.

_____. 1975. "The Flow of Energy in Agricultural Society." Biological Anthropology: Readings from Scientific American. S. Katz, ed. San Francisco: W.H. Freeman.

Richards, Audrey. 1964. Hunger and Work in a Savage Tribe; a functional study of nutrition among Southern Bantu. New York: Meridian.

Sahlins, Marshall. 1978. Stone Age Economics. Chicago: Aldine Pub. Co.

Sahlins, M.and Harris, M. 1979. "Cannibals and Kings:An Exchange." N.Y.R.B. June 28:51-53.

Salaman, Redcliffe N. 1949. The History and Social Influence of the Potato. Boston: Cambridge University Press.

Soler, Jean. 1973. "The Semiotics of Food in the Bible," Annales E.S.C. 28(July-August):943-955.

Stefansson, V. 1937. "Food of ancient and modern Stone Age Man." Journal of the American Dietetic Association. 13:102-119.

Tambiah, S.J. 1973. "Classification of animals in Thailand," in Rules and Meanings. Mary Douglas, ed. Baltimore, Maryland: Penguin Education. 127-166.

_____. 1969. "Animals are good to think and good to prohibit." Ethnology. 8(4), October, 1969: 424-459.

Tannahill, Reay. 1974. Food in History. New York: Stein and Day.

_____. 1975. Flesh and Blood: A History of the Cannibal Complex. London: Hamish Hamilton.

Trillin, Calvin. 1974. American Fried: Adventures of a Happy Eater. Garden City: Doubleday and Co., Inc. 13-23.

Ucko, P. and Dimbleby, G.W. 1968. The Domestication and Exploitation of Plants and Animals. London: Duckworth (pub. 1969). Research Seminar in Archeology and Related Subjects. London University, May 1968.

Verdier, Yvonne. 1966. "Repas Bas-Normands." L'Homme. Juillet-Septembre 1966:92-111.

Wilson, Anne C. 1974. Food and Drink in Britain. New York: Barnes and Noble.

Young, Michael W. 1971. Fighting with Food; leadership values and social control in a Massim society. Cambridge, England: University Press.

1. Articles will be available from a xerox packet created for the course.

2. Recommended books have been ordered through the university bookstore:

Braudel, Capitalism and material life.
Brillat-Savarin, The physiology of taste
Chang, Food in Chinese culture.
Cosman, Fabulous feasts.

Fitzgerald, Nutrition and anthropology in action.
Forster and Ranum, Food and drink in history.
Harris, Cannibals and kings.
Harris, Cows, pigs, wars, and witches.
Henisch, Fast and feast.
Rappaport, Pigs for the ancestors.
Richards, Hunger and work in a savage tribe.
Tannahill, Food in history.

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Publications

ECOLOGY OF FOOD AND NUTRITION

This refereed international journal is interested in publishing papers on food habits, food resources, and other aspects of food as it relates to nutritional status and health. Manuscripts should be sent to:

J.R.K. Robson, MD. DPH, - Nutrition Division - Medical University of South Carolina 171 Ashley Ave., Charleston, S.C. 29401

Book Reviews to:

Peter Pellett, PhD. - Dept of Food Science & Nutrition - University of Massachusetts, Amherst, Massachusetts 01002.

APPETITE, The Journal for Research on Intake, its Control and its Consequences:

A major purpose of the journal is to promote the investigation and understanding of ingestatory control and consequences across the traditional boundaries between empirical disciplines. Therefore innovative or integrative reviews and minireviews are published as well as reports of new investigations. The journal is also open for notes of comment with opportunity for reply, including summaries of important relevant papers published elsewhere. It is hoped to include a section listing current titles of papers on intake, with references and authors' addresses. Books for review or critical notice are welcome, as are submissions of reports, abstracts, titles or announcements of meetings, when these are primarily concerned with topics in the range of the journal.

The journal should be of interest to any concerned with hunger and thirst mechanisms, acceptance of foods and drinks, and the uses and abuses of feeding and drinking practices - including psychologists, anthropologists, zoologists, physiologists, pharmacologists, psychiatrists, medical researchers, nutritionists, food scientists and applied social scientists. While not officially associated with any society, the journal is intended to be of particular interest to participants in international and local meetings on topics such as the physiology of food and fluid intake, obesity, ethnography of

foodways, nutrition education and food preferences.

The journal will appear quarterly from March 1980. Materials may be submitted to any one of the three Chief Editors at the addresses given opposite. Manuscripts should be prepared according to Instructions to Authors which appear in this leaflet and in each issue of the journal. The Editors would be glad to answer any query as to the current suitablity of a topic for review or comment and to receive offers of refereeing services and suggestions for development of the journal.

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Nutrition Research

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The journal will publish rapidly, original papers and review articles covering basic and applied research on all aspects of nutritional sciences. It will include articles on nutritional biochemistry and metabolism; nutrient requirements in health and disease; digestion and absorption of foods; nutritional anthropology and epidemiology; the impact of nutrient intake on disease response, work performance and behavior; the consequences of nutritional deficiency on growth and development, endocrines, nervous system and immunity; food intolerance and allergy; nutrient-drug interactions; nutrition and aging; nutrition and cancer; obesity; intervention programs and socioeconomic factors.

Papers on nutritional research in both man and animals will be considered for publication. The Journal will include original articles, brief definitive reports, preliminary communications, and short critical reviews of topical subjects. Editorials, commentaries, book reviews and conference summaries will also be featured.

Publication

The first issue will be published in January 1981. Rapidity of printing and air mail distribution is guaranteed. Manuscripts should be prepared according to Instructions for Authors. Accepted manuscripts will be retyped into camera-ready copies. The time interval between receipt of manuscript and editorial decision will be six weeks. Accepted papers will have assured publication within 90-120 days. The size of each number will remain flexible to ensure on time publication. To begin with, the Journal will be published once in two months.

The journal is to be published by the Pergamon Press, New York and Oxford. For further information and Instructions to Authors, write to

Dr. R.K. Chandra, Editor-in-Chief, Nutrition Research, Clinical Research Center, Massachusetts Institute of Technology, Cambridge, MA. 02142. Telephone (617) 253-3093/3092

"Down ON THE FARM," Kansas Quarterly, Department of English, Manhattan, Kansas: Kansas State University, Spring 1980. 129 pp. $2.50. In an effort to establish a vital contact with a significant farming heritage, an introduction, 15 prose reminiscences and articles; and 28 poems on relevant themes are procided in this issue of Kansas Quarterly. Many of these reflections are first-person accounts by people who were among the farming portion of the population some sixty years ago. Rural qualities of endurance, hard work, and self-sufficiency are shown here. Reminiscences from a generation later show other characteristics of value and how rural America responded to a variety of hardships. You may order a copy of this issue by writing to: Kansas Quarterly, Department of English, Kansas State University, Manhattan, Kansas 66506. Please enclose a check for $2.50

Charles L. Wood. THE KANSAS BEEF INDUSTRY. Lawrence, Kansas: Regents Press, 1980. 352 pp. $22.50. This book focuses on the period 1890 to 1940 with a final chapter that surveys post 1940 developments. It is concerned with both production and marketing considerations. The book highlights a succession of adversary positions involving the state's cattle producers through a fifty-year period and tells the story of conflicts between cattle producers on the one hand and the railroads, the packers, and the government on the other.

Irvin Milburn Atkins. A HISTORY OF SMALL GRAIN CROPS IN TEXAS: WHEAT, OATS BARLEY, RYE 1582-1976. Free of Charge. It details the introduction of each of these grains to Texas and types and varieties grown during their years of commercial production. It also tells about the changes in the areas of production, changes in varieties, and the research done by the Texas Agricultural Experiment Station to improve varieties for Texas conditions and the protection of crops from hazards of production. Requests will be filled as long as copies are available. To obtain a copy write to: Department of Agricultural Communications, Texas A&M University, College Station, Texas, 77043.

The Country Housewife and Lady's Director by Richard Bradley. A fascimile reprint with extensive intro and glossary by Caroline Davidson, of the culinary works of Richard Bradley, the first Professor of Botany at Cambridge University. "He was a cookery writer who came in from the fields and the garden rather than from the library; and his collection of recipes, for many of which the sources are given, reflect his extensive travels in England and on the Continent and his enthusiasm for the 'new' foods which were

being tried out in the early part of the 18th century." A limited edition has been published, at a cost of $38.50, payable to Caroline Davidson. Contact: Caroline Davidson, 3232 Prospect Avenue, N.W., Washington D.C. 20007

Lyons, Gene M., The Uneasy Partnership: Social Sciences and the Federal Government in the 20th Century, New York: Russell Sage,1969.

Tuner, Dr. Michael, ed., Nutrition and Lifestyles, available through Applied Science Publishers, Ripple Road, Batking, Essex. 1980, 212 pp, $16.00

Unmentionable Cuisine, by Calvin W. Schwartz. Charlottesville: University Press of Virginia, Box 3608, University Station, Charlottesville, VA 22903

deHartog, Adel P. and Wija A. van Staveren, Field Guide on Food Habits and Food Consumption. A practical introduction to social surveys on food and nutrition in Third World communities. Wageningen ICFSH Nutrition Papers No. 1, 1979 pp. 195, revised edition. U.S. $3.00 or equivalent in Dutch guilders, surface mail postage included. This is a guide, not an introduction booklet. It is meant for such field personnel as nutritionists and home economists working in food and nutrition programs in Third World communities. A brief outline on collecting information of food habits, it consists of 5 sections: 1) some of the main socio-economic and cultural aspects of food and nutrition (introduction); 2) relevant points concerning the collection of data in the field; guide to the construction of a food habits questionnaire; 4) different concepts of food consumption; 5) suggestions for tabulation and presentation of data. Charts and diagrams, reading list on Food Habits, references by chapter.

Tools & Tillage: A Journal on the History of Implements of Cultivation and Other Agricultural Processes. Copenhagen: National Museum of Denmark, Vol. III, No. 3, 1978. Contains: Editorial inviting others to participate, articles; 1) Sordinas, Augustus, "The Ropas Plow from the Island of Corfu, Greece," pp. 139-149 (Map, photos, diagrams, bibliography); 2) Marshall, Geoffrey, "The 'Rotherham' Plow; A Study of a Novel 18th Century Implement of Agriculture," 150-167 (drawings, photos, bibliography); 3) Macdonald, Stuart, "The Early Threshing Machine in Northumberland," pp. 168-184 (drawings, photos, maps, charts, bibliography).

Fitzgerald, Thomas K., "Southern Folks' Eating Habits Ain't What They Used To Be," Nutrition Today, Vol. 14, No.1, July/August 1979, pp. 16-21. Based on research on middle-class blacks and whites in a Southern community.

"An Ethnogastronomic History of the Hawaiian Islands," PH.D. dissertation in progress by Judith Kirkendall. Judith Kirkendall, Univ. of Hawaii at Manoa, School of Law, Makai Campus, 1400 Lower Campus Rd., Honolulu, Hawaii 96822.

"Two 'Loaf-givers'; or a Tour through the Gastronomic Libraries of Katherine Golden Bitting and Elizabeth Robins Pennel," by Leonard N. Beck in Quarterly Journal of the Library of Congress, Winter 1980. The article deals with the Renaissance and early modern books in these two collections.

"Aspects technologiques de la cuisine rurale alsacienne d'autrefois," in Revue des Sciences Sociales de la France de l'Est, numero special, pp. 120-141, 1977 (first part of article); next issue contains second part.

Joffe, Natalie F., "Food Habits of Selected Subcultures in the United States," in the Committee on Food Habits, The Problem of Changing Food Habits, NRC Bulletin #108, 1973, pp. 97-103.

Food, Custom, and Nutrition, An Annotated Bibliography on Sociocultural and Biocultural Aspects of Nutrition by Christine S. Wilson in Journal of Nutrition Education, volume 11, $4 (1979).

A 22-page bibliography of Food, Diet and Nutrition and a 6-page bibliography on Cookbooks and Recipes, both listing documents of the United States Government Printing Office, can be obtained by writing: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

BOOKS FOR COOKS is a store specializing in books on food, wine, and cookery. It claims to be the largest, most comprehensive collection in North America. They also published a newsletter, "What's Cooking." Write: Books for Cooks, 850 Yonge Street, Toronto, Ontario M4W 2HI

Film

Gumbo, The Mysteries of Creole and Cajun Cooking

A film by Stephen Duplantier and Marc Porter

Sound: Thomas Robbin,
Benjamin Strout
Prod. Assistance: Justin Foster

The first half of this film looks at New Orleans style Creole cooking. This well known and distinctive cuisine is presented by a broad range of the people who cook Creole: a professional chef at a grand restaurant, a Black chef at a neighborhood restaurant, another Black cook, a woman who has started a table d'hote restauranr, an elderly woman and a young couple.

The second part of this film concentrates on the people of Vermilion Parish in the Cajun section of Louisiana. The film shows some of the range of class styles and food situations which express the richness and depth of Cajun

foodways. Crabbing, crawfishing, a lamb barbecue and a pig roast at a camp are some of the unique food events shown. The film ends with a spontaneous performance of "Jambalaya" by D.I. Menard, a Cajun musician.

For further information contact:

Gulfsouth Films
Center for Gulfsouth History and Culture, Inc.
816 Decatur Street
New Orleans, Louisiana 70116

GUMBO
16 mm. Color, sound, 28 minutes.
Purchase $375.00

Notes & Queries

Wilbur Zelinsky, Cultural Geographer at Penn State, welcomes communications from anyone who has been working on the following topics or can supply references to published or unpublished materials dealing with them: the history, distribution, sociology anthropology, economics, and other significant aspects of past or present restaurants in the United States and Canada featuring ethnic or regional cuisines. By "ethnic" he means a consciously exotic cuisine derived from some foreign community, e.g., Chinese, Spanish or Lebanese among dozens of possibilities, and something other than standard American or Canadian fare. By "regional" he means such specifically regional (and quasi-ethnic) cuisines as Creole, Pennsylvania-German, or Soul Food, but not something advertised as simply "Home Cooking" or "Country-Style Food." Send all inquiries to:

Wilbur Zelinsky
320 Walker Building
Pennsylvania State University
University Park, Penna. 16802

Meetings

CALL FOR PAPERS:

The annual symposium of the Agricultural History Society will be held on June 24-26, 1981, at the University of California at Davis. The conference theme is THE HISTORY OF AGRICULTURE TRADE AND MARKETING. The list of potential topics includes: the trading of agricultural products, futures markets and trading companies; the processing and packaging of agricultural goods; the wholesaling and retailing of agricultural goods; the transport and storage industry; the financing of agricultural trade; agricultural coops; international trade in agricultural products and the development of international markets; marketing as a political issue; government policy, both domestic and foreign; advertising and product development; inspection and grading; the influence of marketing practices on farm labor relations; the direct marketing of agricultural products; and the influence of changing marketing practices on farm production and structure. The list is intended as suggestive and papers on related issues will be given full consideration. Individuals interested in presenting papers shouls send a one page abstract by October 15, 1980 to Alan L. Olmstead, Director, Agricultural

History Center, University of California, Davis, California 95616.

The Western Social Science Association will hold its 1981 convention at San Diego, on April 23-25, 1981. Proposals for papers and sessions in Agricultural Studies will be welcomed on any aspect of agricultural history and development. Please send your proposal no later than November 1, 1980 to Dr. Irvin May, Research Historian, TAES, 1013 Madera Circle, College Station, Texas 77840. Phone: 713-845-5043 or 713-696-7188.

Announcements

Just a short note to let you know that the Nestle's boycott is still in progress. The purpose of the boycott is to convince Nestles to stop promoting its baby formula in Third World countries, where illness and even fatalities seem to be related to its use. For more information contact INFANT (Infant Formula Action Coalition), in care of the YWCA in your area.

Since world hunger is becoming of increasing concern to Americans, we thought you might be interested in the names of a few organizations dedicated to the relief of hunger. They are: The Hunger Project, P.O. Box 789, San Francisco, California, 94101; OXFAM America, 302 Columbus Avenue, Boston, Massachusetts 02116; Food First, Institute for Food and Development Policy, 2588 Mission Street, San Francisco, California 94110.

THE NESTLES BOYCOTT

Infant formulas sold in the Third World is the basis of the boycott, which has ranged from scientific dispute over breast-vs-bottle-feeding to a boycott of Nestles products. The boycotters maintain Third World markerting has encouraged mothers to abandon breast feeding resulting in infant malnutrition and, due the use of polluted water, infant mortality. However, WHO and the Human Lactation Center have failed to find a global rejection of breast feeding, indicating that advertising is not the culprit but, rather, urbanization and women in the work force which bring about a breakdown in traditional family ties.

The Wall Street Journal for November 1, 1979 reported concerning an international conference held in Geneva in October 1979. Attending were representatives from WHO, UNICEF, the infant formula industry and the anti-industry lobby. The latter recommended a ban on all Third World advertising of infant formula. Nestle endorsed the guidelines set up and will work with WHO and UNICEF on world marketing standards. Ignorance about nutrition and sanitation remain and, due to misguided do-gooders, some educational programs are destroyed.

THE INTERACTION OF CAFFEINE AND ALCOHOL IN NATIVE AMERICAN POPULATIONS*

by

Walter Randolph Adams

Caffeine and alcohol, one a stimulant the other a depressant, are now subjects of world-wide attention, concern, and utilization. Both have enjoyed complimentary or antagonistic uses throughout much of their history; they produce similar effects when consumed in moderation, and many of the behaviors surrounding their consumption are shared. Until the nineteenth century, if coffee houses were a prominent feature in a culture, establishments which sold alcoholic beverages did not function in the same way (Jacob, 1935). The reverse is also true. During the nineteenth century, however, caffeine and alcohol entered a synergistic relationship, and came to be utilized together in many cultures.

In this paper the history of one caffeine-bearing substance, coffee, is examined; its development from a beverage of limited use to one which is consumed virtually world-wide is traced. Almost every culture, especially the sedentary agriculturalists, have had some kind of alcoholic beverage since the beginning of recorded history. Accordingly, a history of alcohol use would be very complex and so is not attempted. When alcohol and xanthine-bearing substances (coffee, tea, cocoa) join forces, however, as they have since the nineteenth century, the combined effects produce different cultural effects. The second part of this paper, "Psychology and Culture", traces the history of Native American -White relations, the development of alcoholism among the former population, and the psychology behind its uses. It will be seen that caffeine may well be implicated in Native American alcoholism.

HISTORY OF COFFEE

If any beverage is closely associated with colonial expansion, coffee is a sure candidate. In a large measure the argument presented here follows that of Jacob (1935) whose work traced the distribution of coffee from the eleventh century until the early part of this one. The different uses to which coffee has been put throughout its history -- from a medicine and luxury consumed by the upper classes, to one which has attained almost universal use will be considered.

The general consensus of plant geographers and historians is that coffee was first used in Africa, although the specific region is not known (Jacob, 1935; Ukers, 1922; Wellman, 1961). There are two preparations reported among various African groups. One is in the form of ground mixed with animal fat, and pressed into a cake. This is reputed to contain enough nutrients and energy to sustain a man for one day. A variant of this is reported among the Galla Tribes of Africa today (Wellman, 1961:13). The other form is that of a soup, which has been reported for the inhabitants of the Lake Victoria region (Wellman, 1961).

Coffee spread from Africa to Yemen, around 575 A.D. traveling back along the path of the culture-bearing invasion of the Sessanid conquerors who travelled from Persia and up the Nile Valley (Wellman, 1961:7-8). It has been suggested that the use of coffee mixed with animal fat was the form which first caught the attention of the Sessanids. It was eaten as a compressed product, considered to be an iron ration, in the crusade of Calib Negus against Yusif Yarush in Yemen as well as by Abyssinian camel drivers who took pressed cakes of coffee and dates with them in their travels (Wellman, 1961:13).

In what form coffee actually reached Yemen is not known. If eaten as a cake, it would have been excreted in the feces and might have grown wild after germination. Alternatively it could have been imported for cultivation. A folk tale which accounts for its discovery in Yemen suggests that it may have been wild. The story recounts how shepherds noticed that their goats had eaten the berries and leaves of a coffee tree and did not sleep that night. The shepherds reported this to the prior of the local convent, who asked them to bring some berries and leaves of the tree. When he had received them the prior made an infusion. He, too, found that he was unable to sleep and that he could use the beverage to endure long nights of prayer without falling asleep (Jacob, 1935; Ritchie, 1975). The truth of this is speculative, but it has been said that the traditional use of coffee in the Muslim world was in ritual by the mullas and there were attempts to restrict it to ritualistic purposes (Wellman, 1961).

The next firm date we have regarding the knowledge of coffee is 1000 A.D. Avicenna, the "Prince of Physicians" was acquainted with the product (Jacob, 1935:49). Thus, we know that it had reached Abyssinia by this time. Shortly thereafter coffee was being transported from Ethiopia, Abyssinia, and Somaliland to Persia and Arabia (Jacob, 1935:49). As the Islamic faith gained momentum and spread, so did the knowledge of coffee.

By the 1500's, coffee had lost much of its sacred connotation and was in widespread use throughout the Islamic world. In 1523 and 1551 there were attempts to prohibit coffee consumption and to close down the local coffeee shops on the part of the local religo-political leaders. Whether these attempts were carried out on the belief that coffee was intoxicating, and therefore should be treated as wine (i.e., prohibited); or, whether it was because of the increasingly widespread use of a ritual beverage, is unknown. In any event, the attempts did not have much effect on Islamic culture and the beverage continued to be consumed in the open (Jacob, 1935).

Hull (1865) suggests that coffee was first noticed by Europeans in 1573 and was identified scientifically in 1593, but it was not until the Battle of Vienna in 1615 in the Turkish War that coffee was first available in Europe in any sizable quantity (Lutz, 1978). The beverage caught on like wild fire and coffee houses opened in various parts of Vienna and in surrounding Europe. For the next 50 years Arabia was the source of coffee for Europe. The Parisians were avid drinkers of the beverage

by the 1650s and coffee houses could be found in all parts of the city (Jacob, 1935:118).

With Islam coffee had spread to Ceylon and India. It was noticed in Ceylon by the Dutch, who took some trees to the Island of Java. By the late seventeenth century the Dutch East India Company had become the primary purveyor of coffee beans and Java was the principal source of the product (Jacob, 1935). At the Treaty of Utrecht in 1714, which involved most Western European states, a coffee plant was given to the proxies of each of the rulers represented, and soon the plants were grown in the houses of the upper classes. Due to the climate, however, the trees did not provide a source of the bean (Ibid.). King Louis XIV of France received his first coffee tree as a gift from the Dutch. He planted it in a green house, produced beans from it, and sent them to be planted in the West Indies (Hull, 1865; Jacob, 1935). This came to be the dominant source of coffee for the French in the early eighteenth century (Jacob, 1935).

Returning briefly to the seventeenth century, we find that the earliest reference to coffee in the Dutch colonies of the New World was in New Amsterdam in 1668 (Ukers, 1922:102). It first appears in the official records of the colony in 1670 (Ibid.). In 1683 William Penn is recorded as having bought supplies of coffee, perhaps for his settlement on the Delaware River which had been established a year before (Ukers, 1922:102). Coffee, tea, and chocolate entered the English colonies almost simultaneously, but it was not until the Stamp Act of 1765, and the Boston Tea Party, that coffee came to be established as the preferred beverage in the American colonies (Ukers, 1922:102).

In the early nineteenth century coffee was planted throughout the Spanish and Portuguese colonies in the New World. King (1974) mentions that coffee was beginning to be considered as a crop in Guatemala by 1830, but it was not until some thirty years later that the commercialization of coffee occurred (King, 1974:29). By 1870, 11,3000 quintals (hundredweights) were being shipped from Guatemalan ports; in 1888, production had climbed to 29,0000 quintals (King, 1974:31). Similar increases in production are found elsewhere, too. For example, Brazil in 1796 shipped 127 tons of coffee from Rio de Janeiro, by 1806, this had increased to over 1,200 tons; and by 1822, 35,000 tons were being exported from this one port alone (Poppino, 1973:148). Brazil is still a major source of coffee for the world: "Between 1850 and 1950 it regularly contributed from about half to more than three quarters of the world's supply" (Poppino, 1973:147). Even today the price of coffee in the United States and the World is largely controlled by Brazil.

Along with the increasing production of coffee there is a comcomitant increase in consumption. By about 1000 A.D. not only was coffee used to help keep the mullas awake at night, but it was also used as a medicine to relieve menstrual (Wellman, 1961:11; Jacob, 1935:71) and labor pains (Jacob, 1935:58). In this time period, it was primarily the upper classes who were the only ones able to afford the beverage. As time went on, the price went down and coffee soon became a common beverage. In the 1500s a law was passed in Turkey allowing women to divorce their husbands if the latter refused them coffee (Jacob, 1935:58).

It was also during that century that coffee houses gained wide acceptance in Arab countries.

England was using coffee in 1650 to cure drunkenness, gout, scurvy, and smallpox (Jacob, 1935:131). By the 1700s it was consumed by the middle class in England. It was considered to be the intellectual beverage, and coffee houses came to be the places to discuss politics and other ideas. The major literary figures of the period were frequenters of coffee houses (Thurber, 1881; Jacob, 1935). "Whereas the seventeenth century valued coffee for the most part as a medicament, as a quickener of the circulation and as an anti-Bacchic remedy, the eighteenth century looked upon it as an intellectual stimulant" (Jacob, 1935:262).

During the nineteenth century coffee became considered as an energizer of the work force. Perhaps indicative of this is the institution of the "coffee break" which started in the textile mills of Manchester, England during the Industrial Revolution (Wellman, 1961). Coffee was an antagonist of hunger (Jacob, 1935:262), and as such was no longer considered a luxury item, but now was seen as a basic necessity (Jacob, 1935: 262).

Among the Whites in North America, coffee had the same status as it did across the Atlantic Ocean. Among the Native Americans, however, it had the same value as it had among the sixteenth century Europeans: as a luxury item. Kurz (1937:44) says that it was part of the bride price and was used in trading for items of value. Thurber (1881:3) mentions that Indians would travel "hundreds of miles" for it.

PARALLELS WITH ALCOHOL

Throughout its history coffee has been asssociated with alcohol, sometimes as a beverage which imparts feelings of intoxication and sometimes as a remedy against drunkenness.

The bulk of Jacob's (1935) work goes into great detail of the parallels of coffee and alcohol. Outside Africa the Christian and Islamic areas of the Old World were areas of alcohol and coffee use, respectively. With each Arab victory wine shops were closed down, and in their stead coffee houses sprang up almost immediately (Jacob, 1935; Wellman, 1961). During the 1500s there are two recorded attempts on the part of the ruling parties to close down coffee houses in certain parts of Arab lands. In 1523, Abdullah-Ibrahim, chief priest of the Koran in Cairo, began a campaign against coffee drinking. He called it "cahwah", wine, and as such, it was prohibited by Muslim law (Thruber, 1881). The same was attempted in 1551 by Khair-Beg, Viceroy to Mecca (Jacob, 1935). Each attempt to quash consumption of coffee had an opposite effect (Jacob, 1935), much as the Prohibition Act of 1919 had in the United States. There seems to be a suggestion that coffee was considered an intoxicant due to the fact that, while it was originally a sacred drink consumed by the mullas, by the 1500s it had become secularized and concomitantly, the beverage began to be drunk for carnal pleasure by men in coffee houses. There they would philosophise and/or enjoy risque

entertainment (Wellman, 1961:18). This was seen to be a source of danger to the existing moral order (Ibid.). In 1675, Charles II of England, too, regarded coffee as a sort of intoxicant and coffee houses were "hot beds of seditious talks and slanderous attacks upon persons in high stations" (Thurber, 1881:57); and he too, tried to close down the coffee houses.

Jacob (1935:262) was not entirely mistaken in his view that coffee is anti-Bacchic. He documents the distribution of coffee and alcohol outlets and makes a compelling argument that coffee houses served the same prupose as taverns, public houses, and the like. He shows that where coffee was consumed as a social beverage -- for example in France, Arab countries, Vienna, and England during the 1600s, taverns and public houses did not serve that function. Where there were no coffee houses, for example, England in the late 1700s (when tea made its debut), beer houses served this purpose (Jacob, 1935).

Ukers (1922), shows the parallel between alcohol and coffee usage occurs in the North American colonies also. He observes that in New England during the 1700s coffee was closely interwoven with inns and taverns; consequently, it is difficult to distinguish between true coffee houses and public houses (Ukers, 1922:102). In his diary of the years he spent among the Western Plains Indian traders, Kurz (1937) repeatedly shows that traders not only supplied the Indians with alcohol, but also with coffee. To my knowledge no real systematic study of coffee in North American Indian groups has been made.

Coffee however has been regarded as an agent which combats the effects of alcohol throughout much of its history. As was noted above, during the 1650's in England coffee was used to cure drunkenness and gout (Jacob, 1935:131). The notion that coffee dispells drunkenness has not totally disappeared. During the Christmas Holidays a few years ago the American Automobile Association issued a series of Public Service Announcements imploring the public not to attempt to use coffee to combat the effects of alcohol.

As can be seen, coffee and alcohol have been regarded in a somewhat parallel fashion throughout the history of coffee's use. Institutions dispensing coffee or alcohol or both together have been since the end of Classical times filling certain social roles, and alcohol has long been thought to be combatted through the administration of coffee.

PSYCHOLOGY AND CULTURE

The previous sections did not examine social theory. In this part two of the theories that have been proposed to account for alcoholism at the social level and their relevance to the North American Indians. It is important to note that there are numerous other theories which have been advanced. The two described here were chosen for their relevance to the Native American case. The two theories are described and their limitations considered. The history of the North American Indians is then followed from autonomy to dependency on a larger system, namely that of White America. The reasons that have been given for their alcoholism are then considered. This approach shows that the two

general theories can be used, but are limited in focus.

Phillips (1976) applied Durkheim's theory of anomy to the study of alcoholism. Because his original study was thought to consist of too few individuals, he repeated the study and increased the sample size. He thought that alienation and rejection might be factors in explaining the addictive process associated with alcoholism (Phillips, 1976:78). The results of his studies indicated that alienation and rejection generally did not occur in the early stages of alcoholism, but rather in the later ones. Thus it did not explain why alcoholism started in any individual. As alcoholism progressed in the individual, his drinking tended to alienate those around him and the alcoholic came to be rejected. This increased the drinking behavior, further alienating his associates.

In a limited way, this model is pleasing because as Phillips (1976: 82) has found it is not severely affected by sociocultural or socio-economic factors. Thus, hypothetically, it can be used to explain alcoholism among the North American Indians. There are, however, some flaws in Phillips' (1976) argument with respect to the North American Indian case in particular, and in other cases as well. Phillips' model looks at the individual in his system as if that is the only system of which the individual is part. He does not consider the overall system that may be present, such as is the case in a plural society. It focuses too closely on the individual. While Phillips' idea explains why a habitual alcoholic continues to drink, it does not explain why the individual first turned to the bottle. Finally, because alcoholism has long been a problem in North American Indian communities, this theory cannot be used to suggest possible reasons for alcohol use at the time of introduction.

The second model under consideration was presented by Wurtrich (1977). The basic assumption is that alcoholism is a social disease. Understanding the problem "requires the understanding of the normative system in which alcoholics are embedded, for social rules act as walls channeling behavior" (Wurthich, 1977:881-882). His hypothesis is that the bases of social conflicts are structural and are derived from patterns of social units which are not bound to the individual (Wurtrich, 1977:833).

To test this hypothesis, Wurtrich studied a group of Swiss alcoholics and non-alcoholics. He found that the institutions with which the alcoholics had a direct and immediate relationship, and from which they could not easily escape were most often mentioned as sources of conflict (Wurtrich, 1977:883). These relationships could be of any type; they could be, to use Durkheimian terms, either organic or mechanical solidarities (Wurtrich, 1977:884).

Wurtrich's model is satisfying for a number of reasons. It does not focus so strongly on the individual; rather the environment in which the individual is situated is emphasized. It advocates the study of the institutions and surroundings, thus it has more anthropological applications. In contrast to Phillips' model, it also offers some explanations of why the alcoholic first turned to alcohol. But, like the earlier

model, Wurtrich does not take into consideration the element of time; although this dimension could easily be incorporated. By so doing, an investigator may be able to offer clues to why the members of society now composed virtually of chronic alcoholics (not negating the fact that there are abstainers), such as the Native Americans, came to be alcoholics in the beginning. In the next few pages I will discuss this problem and integrate alcoholism with caffeinism.

In large measure, Dozier (1966) has already incorporated the historical dimension to Indian alcoholism; but, he did not carry it to the extent which the present writer feels necessary. In order to get to what I consider to be the base of the problem, it is necessary to discuss, in very general terms, the history of the Indians, primarily with respect to their social and economic systems and dealings with the White man.

HISTORY

It is a well-known historical fact that the majority of the North American Indians were hunters and gatherers; with some, notably in the Northeastern and Southeastern parts of what is now the United States - although not limited to these areas - also relying on agriculture to some extent. The Southwestern Puebloan cultures were the only groups in the historical period which were sedentary agriculturalists, and relied to a lesser extent on meat and psychoactive drugs, notably tobacco and alcoholic beverages, were known among some of the groups prior to the coming of White man. But, in all cases, these were used only in ceremonial contexts, and not as the normal day-to-day practice. The Black Drink was used among the Southeastern tribes (Hudson, 1976), and tobacco among the Iroquois (Fenton, 1936; Fenton, 1963) were sacred; perhaps to the extent that coffee was in Arabia at the beginning of its use there.

When the Europeans began to explore the rest of the World, there were only two nations which had any long-lasting impact on the North American Indians, the French and the British. The Dutch arrived in North America, but did not penetrate far inland; and relative to the French and English, had minor impact. The Spaniards also put toe-holds in the North American continent, but by and large, confined most of their activity to Mexico and Central and South America. Their attempts to establish missions in the Southeast were, for the most part, failures. For example, when the Spanish set up missions in the Tarankawa area of Texas (in the southeastern part of the state), there were bellicose neighbors who took delight in raiding (and killing) their now-immobile foes. The end result was death to many of these groups and the Spanish friars as well. Consequently, many of the missions were abandoned relatively soon after they were established. The Spanish also established missions in the Southwest, but had only minor impact (if any at all) on the Puebloan cultures. The missions established in California met with some degree of success. But by and large, it could be said that the

impact of the Spanish in the area north of Mexico was slight.

There were fundamental differences in the philosophies of colonization as practiced by the French, English, and Spanish. The noted American historian, Francis Parkman, was aware of the differences with respect to the French and the English. In all of Parkman's works which deal with the Northeast, the underlying theme was that the English arrived to take land away from the native inhabitants and the French arrived to trade with the Indians. This fundamental difference,according to Parkman, was the reason why the majority of the Indians allied with the French against the British in the French and Indian Wars. Spicer (1976) has noted that the Spanish were interested in gold, silver, and souls. Finding neither gold nor silver in North America they became content with souls. However, the sedentary life that missionizing required did not set well with the nomadic groups. The Puebloan groups were already sedentary, and the Spanish did set up missions there; but, it was not until the nineteenth century that the Puebloan cultures began to dissolve under the weight of the intruders, who at this time were primarily American (Crampton, 1977:153). This being the case, we will not discuss the Spanish further, but will focus our attention on the French and English.

Although there was a fundamental difference in colonizing philosophies between the French and English, as Parkman noted, with an ecological-economic perspective, the two nations had a similar effect: they both destroyed the tender ecological-economic system of the Native Americans (a practice which was to continue under the impact of the "Americans").

The French and English destroyed the ecological balance through the Fur Trade. It was the Anglo-Americans who moved the Indians onto reservations situated in lands of marginal productivity (Peterson, 1972:113). If the Indians stayed in their native areas, for example the Iroquois, they were allowed only to use a small portion of the land and its resources they had formerly utilized. In some cases, such as that of the Cherokee of the Southern Appalachian Highlands (Grinde, 1975:33), the Native Americans were removed to areas foreign to their own turf, where knowledge of local flora and fauna was not well-developed. All of these actions deprived the Indians economically. The Fur Trade depleted the beaver and deer, the protein basis of the diets of the Northeastern and Southeastern groups, respectively. There were other sources which further increased the deprivation felt by the Indians, as Dozier (1966:74) has stated so well: "The roots of Indian deprivation may be attributed to wars, cultural invasion, the arrival of contemptuous settlers, military subordination, loss of land, and - the final blow to Indian dignity - placement in Indian reservations and the food ration system." Why the food ration system was needed was alluded to briefly above, but we must first expose some of the underlying reasons.

We mentioned that the Fur Trade destroyed the ecological base of the Indians. This can be seen to have occurred because in the Northeast and Southeast, where beaver and deer, respectively, formed fundamental

parts of the Indian diet, the fur trade created the situation where these animals were being killed indiscriminately for their fur, and the meat was left to rot (viz, Hudson, 1976). The nomadic tribes, placed on reservations, were badly affected economically, too, because their economic base was destroyed. Their placement in the arid West, requiring complex irrigation farming, only aggravated the situation (Dozier, 1966:74).

Thus is it seen that the fur trade and reservation systems destroyed the economic-ecological bases of the North American Indians in any one of three ways. First, by destroying a significant part of the diet through killing the main source; second, by relegating the Native Americans to only a small portion of the land they had previously utilized, and hence decreasing the resource base; and third, by relocating the Indians to marginal land in an alien ecosystem which required an alien technology.

Each of these created a situation where the Indians had to rely more and more heavily on the White man for food sources; thus the creation of the food ration system. However, in all fairness, it should be said that the dependency on the White man for food and other needs was further aggravated by the prestige value associated with certain items. It is in this context that alcoholic and xanthine-containing beverages entered the Indian communities. Which of these became prevalent in any given society depended on the location of that group and which of the foreigners were responsible. "Tea was consumed by the ton in the fur trade and coffee was certainly popular in the American West. . ." (The "Engages", 1976:2) Chocolate was available in the fur trading areas and in the Southwest, where the Spanish had introduced the beverage to the groups there (The "Engages", 1976:2). The French and English disseminated alcohol to the Potowatomi in the late eighteenth century (Hamer, 1965: 286) and to the Sioux (Kenmitzer, 1972:138); the Americans were responsible for introducing the groups further inland (Kurz, 1937). The data suggest that alcohol was a high prestige symbol (Kunitz, et al., 1976:216). The same can be said to be true for coffee, tea, and cocoa (The "Engages", 1976; Kurz, 1937; Thurber, 1881). Kurz (1937:44) indicates that coffee was part of the bride-price among the Iowa Indians during the mid-part of the last century.

The initial reaction toward alcohol among the Sioux and other groups was wariness and reluctance (Kenmitzer, 1972:138; Dozier, 1966:72). Dozier (1966:72) has said that an important part of the revival of nativistic religion was a condemnation of alcohol. (It is of interest that while nativistic religions have largely lost their import in the more recent past (Dozier, 1966), the Pentacostal Churches and other fundamentalist groups have taken over that role (viz. Dozier, 1966:85; Honigmann, 1976:395). However, the Indians soon learned the drinking practices and drunken behavior of White frontiersmen. As pressures from the White traders increased, so did the Indians' use of alcohol and their drinking became uncontrolled (Kenmitzer, 1972:138). The increased pressures of the traders quite possibly increased the Indian reliance on the former for food items and decreased reliance on native foods, furthering the already present malnutrition.

External pressures can account for some of the reasons why alcohol was used to the extent it was during the nineteenth century. Some pressures were endogenous, too, as has been described for the Potowatomi: "(T)he pre-existing tensions between spouses, lack of social controls, beliefs about the curative properties of alcohol, personality attributes of dependency and strict control on interpersonal aggressiveness, made drinking an acceptable inovation in Potowatomi culture" (Hamer, 1965: 286).

The initial wariness toward alcohol was not mirrored in the Indian reaction toward caffeine.

> Somewhere I have read of the great surprise and delight manifested by the Indians of the Western Plains when first made acquainted with (coffee). Usually indifferent to new objects, they fail to restrain their delight over the comforting draught. It is a matter of record that they have travelled several hundred miles in order to satisfy their taste for coffee" (Thurber, 1881:3).

Just how swiftly caffeine entered the Indian diet is not known. However, an indication may be suggested by the observation of tea in Northern Canada. Farkas (1979) notes that tea was introduced into the general culture probably around the middle part of the nineteenth century. It was not listed as a trade item in the Northwestern Quebec Hudson Bay Company before 1840. By 1911 it was a staple item of trade.

Alarmed by the increasing alcoholism on Indian reservarions, the Federal Government, in 1823, prohibited the sale and use of alcohol to the Indians (Dozier, 1966:77). The general Indian reaction was that of a reinforced realization that Whites considered them to be immature and incapable of making their own decisions and choices (Dozier, 1966:77). This made alcohol more alluring to the Indians and at least some of their needs were supplied by Indian and White bootleggers (Ibid.). It is not known what effect the prohibition had on caffeine intake, but it is suspected that it probably increased. The prohibition brings out another psychological stressor that the Indians have had to overcome, which was perhaps best stated by Dozier (1966:76):

> "Perhaps the greatest blow was Federal wardship. In the early days wardship meant for many Indians a direct dependence on the government for food and clothing through the ration system. Later he was expected to procure his own resources, but Federal wardship still controlled his land, his right to vote, and many other rights and privileges enjoyed by other citizens."

Federal wardship also caused the demise of many Native American Institutions. Whereas before White domination, the males were originally

hunters, warriors, and the religious leaders of their societies, and as such enjoyed prestige and status, after the Indians were controlled by the Whites, the males began to lose status because they were no longer able to fulfill their traditional roles as principal breadwinners (Hamer, 1965; Wax, 1972; Dozier, 1966).

Women, on the other hand, for a time gained status. This was not due only to the relative decline of the males in status, but also because of their inherent biological role. The more children they produced, the more income they received from the Federal Government (Hamer, 1965; Cockerham, 1975). Thus the women, and not the men became the fundamental breadwinners of the family. This situation seems to be changing in the more recent past, and not for the better. As exterior institutions, for example boarding schools and Head Start, have come into the reservations and have provided better instruction and food that undercut the norms of the parental household, the role of the female in lower socioeconomic status decreases (Wax, 1972:207).

Before we deal with the explanations for alcohol use in North American Indian communities, let us briefly recapitulate the history of White and Indian interaction. We noted that the philosophy toward the Indians on the part of the Spanish, French, and English differs markedly and consequently so did their treatment of the Indians. We disregarded the Spanish on the grounds that they had minor impact on Indian culture relative to the French and English as it relates to this problem. The French and English were similar in the respect that they destroyed the ecological and economic base of the North American Indians. By so doing, the latter became increasingly dependent on the Whites for food and other items. The fur trade and traders brought alcohol and coffee to the Indian culture. Alcoholism was so rampant in the Indian cultures by the early part of the last century that the Federal Government prohibited its sale and consumption on Indian Reservations (a prohibition which was lifted only 30 years ago). This prohibition highlights the fact that indigenous institutions collapsed under the impact of White culture, a process which continues today.

EXPLANATIONS FOR NORTH AMERICAN INDIAN ALCOHOL ABUSE

By far the most cited reason for Native American alcohol use is "accultural stress". This is a good explanation, but it is very broad and encompasses many different aspects of indigenous life. By merely categorizing the stressor "acculturation", one does not allow for the development of social policy. The primary reasons I will discuss here; economic factors, loss of social status, and loss of traditional institutions; are all the results of acculturation. By separating these, one may gain further insight to the alcohol problem in North American Indian communities and caffeinism. The bulk of the first aspect of acculturation, economic factors, will relate to diet, either directly or indirectly. It will be recalled that a poor diet potentiates increased alcohol use, and caffeine added to that diet causes further increases

in alcohol intake in laboratory animals (Register et al., 1972).

The relegation of Indians to reservations and the creation of the situation where they became increasingly dependent on the Whites was both the cause and result of the decreased economic importance of hunting. This resulted in a reduction in the supply of meat for food and of trade goods - hardware and dried goods - on which the Indian family now depended (Dozier, 1966:75-76). Those cases in which cultures were transposed from one area to another foreign one resulted in even greater dependence on the Whites for food. In those cases where the Indians remained in the same place, such as the Puebloan groups, there was another kind of shift:

> "Since the coming of the rails, the age old subsistence agriculture largely has been replaced; self-sufficiency has given away to dependency on outside markets and sources of supply. The fields along the Zuni River and its branches, once heavily planted in corn and grain, are now given over to growing alfalfa for the outside market or for consumption by local herds" (Crampton, 1977: 152).

The hand irrigated patches of vegetables have given away to livestock, especially sheep (Crampton, 1977:153), which has severe environmental implications due to the morphology of sheep jaw.

Among the formerly nomadic Dakota, this reliance on external markets has had serious results in other aspects of culture, as Kemmitzer (1972: 141) describes:

> "Sharing and giving of material goods, as expressions of kinship relationship and as political claims to prestige were integral parts of Dakota culture before the loss of independence. Individuals could recover from massive gift-giving, because they were part of a reciprocating network and the system of goods and subsistence was open, allowing people to gain food, shelter, tools, and luxuries by human effort. In contrast, modern reservation economy is dependent on principles external to Dakota culture, and to a large extent, personal effort has little direct influence on the acquisition of goods. Further, the resources on which an individual can draw to gain things to give away are dwindling.

The increasing reliance on White culture for food has come to the point where the primary sources are local grocery stores, reservation

trading posts and commodity foods (where the program exists) (Peterson, 1972). This occurs to the exclusion of the usage of traditional foods. Apparently, Peterson asked her informants about the use of these food sources and the answers she received were on the order of "Where can I get it?". Peterson (1972:103) considers this an indication that the supplies at hand are insufficient. However, Messer's (1977) study of the diet in modernizing Mitla, Mexico, indicates that traditional food supplies are not only insufficient, but they are also culturally unacceptable. In her words, "Not only are they becoming less available in real environmental terms, but they are also becoming less socially acceptable as items of diet" (Messer, 1977: 120). This pattern has been seen to repeat itself in many other cases (Adams, in press); consequently I am inclined to believe the same may be the case for the North American Indians - with the possible exception of those cases where there was also an enviornmental shift involved.

In economic terms the Indians are quite poor. Two descriptions will serve to verify this. At Pine Ridge, over half of the population live in households in which the self-supported income is less than $3000. About half receive less payments in December and January ranging from one dollar to $300, but only three or four receive checks amounting to over $1000. One third of the population are on welfare or receive pension checks (Kenmitzer, 1972:137-138). Peterson (1972: 113) says only that two-thirds of the Navajo and Pueblo live on less than $3000 per year and one-half live on less than $2000. Whittaker (1962:468) writes that the average income per family among the Standing Rock Sioux in 1955 was $1179, and Hamer (1965:289) says the average monthly income for a Potowatomi family during 1960-1961 was $170.14; or $2041.68 per year.

Part of this poverty is due to the low employment rate among Native Americans. At Pine Ridge reservation, the general picture is the following: Nobody has a regular wage earning job; unemployment stands at 10 times that of the white population. Over 25% of those employed are employed part-time; 13% of those working are employed at temporary jobs, and half of those working are employed by a Government agency (Kenmitzer, 1972:136). Hamer (1965:228) found that part-time work and government relief checks provide bare subsistence for the Potowatomi. Among the Standing Rock Sioux there was chronic umemployment (Wittaker, 1963:83), and it is also high among the Navajo (Graves, 1967; 1970).

Wax (1972) and Littman (1970) have analyzed the reasons behind the poor employment statistics and have come to the following observations. An unemployment counselor found that many Indians do not like the monotony of factory jobs,do not like to travel long distances to and from work, and they find restaurant work too demeaning and too unmanly (Littman, 1970:1776). Wax (1972:204) found that steady unemployment does not fit in with the background of nomadic hunting and gathering groups, and that the work has to be meaningful to their lives (this could partially account for the high rate of employment in Government agencies reported by Henmitzer, above). Advancement on the job has little or no

meaning "and sometimes it is actively avoided in order not to place oneself in a position of authority over one's fellow man" (Littman, 1970: 1776).

There are a number of other factors which influence the diet of North American Indians, too. Peterson (1972:101) lists housing improvements, economic status, employment of the mother, available trasnportation, Federal food assistance programs, proximity to food markets, and the availability of local foods. By and large these are external considerations imposed upon the Indians by the Government. There are also important endogenous factors as well. Food habits and the nutritional status of children are also affected by family disorganization (Littman (1970:1771) (Ferguson, 1968:162) reports that most cases of malnutrition occur in alcohol related homes), and many children and infants are found to receive care from outside of the family (Peterson, 1972:101).

> "Perhaps the practice which has the greatest influence on what the Indian child eats is a part of the Indian culture which recognizes each child as an individual. Therefore, the by two years of age may eat when he is hungry, eat what he likes, and what is available" (Ibid.).

This gives rise to the question, "What is available?". Peterson (1972:103) has answered in the following manner: "Depending on economy, the family diet is likely to be high in carbohydrate and in fat, limited in good quality protein, and short in sources of vitamin C and iron, at least." The general trends observed in the Oklahoma City Health Service Area indicate that lean meat, vegetables and fruit are consumed seldomly; salt pork, bacon and eggs (either fresh or dried) are used by almost everyone; dried beans are found in all diets - especially those of the very poor; and milk is added to home-bread, but is not consumed as a beverage. Bread is used by virtually the entire population (Peterson, 1972:103). The surplus commodities given to the Indians are also an important source of nutrients (Reisinger and his coworkers (1972) report that 53% of the Navajo of Lower Greasewood, Arizona receive them). The foods that arrive once a month to each Sioux family at Pine Ridge include 40 pounds of flour, 4 pounds of rice, 5 pounds of cornmeal, 4 pounds of bulgar wheat, 6 pounds of lard, 8 pounds of canned chopped meat, 4.5 pounds of dry milk, 4 pounds of raisins, 3 pounds of oleomargarine, and 2 pounds of peanut butter (Kenmitzer, 1972: 136).

The Navajo and Pueblo groups were noted to give coffee and tea to children at early ages (Reisinger, et al., 1972). The Nahajo were seen to add coffee to milk when the child was very young. This may have been due to the lack of refrigeration and the high price of milk (an etic explanation), the belief that milk is a weak food and causes diarrhea (an emic explanation (Peterson, 1972:103), or due to the fact that North American Indians are intolerant to lactose (Anon., 1973), (a biological explanation which correlates with the emic one). Farkas

(1979) notes that very young children are given tea in Northern Canadian Indian groups.

With diets of the sort described here, nutrient deficiencies should be cited. Farkas (1979:37) believes subclinical deficiencies of thiamin, magnesium, and ascorbic acid are present in Northern Canadian Indian groups. Reisinger and his co-workers[147a] report vitamin C levels below 0.3 mg% in at least half of the Navajo population, while 3% of a sample of 760 individuals had poor to low levels of vitamin A, and riboflavin deficiencies were noted as well. They reported 10% of the children ages 1 to 4 were anemic and malnutrition was endemic.

Owen and his colleages (1972:99), working among the Apache write: "A significant proportion of Fort Apache preschool children were receiving insufficient calories, calcium, ascorbic acid, vitamin A, riboflavin, and iron to meet requirements." They later note that the protein intake is acceptable but often of poor quality (Owen et al., 1972:111). Speaking of Indians generally, Littman (1970:1773) says that many expectant mothers are malnourished.

Thus, it is seen in at least these groups, and doubtlessly others as well, malnutrition is prevalent among the North American Indians. If humans react to this stress by increasing their intake of alcohol, which is further increased by the intake of caffeine, as has been noted to occur in laboratory animals (Gilbert, 1974; 1976; Register, et al., 1972), then it can be said that there <u>is</u> a physiological reason behind the use of alcohol and caffeine in <u>these</u> groups of people.

However, the problem is much more complex than this because psychological stresses over and above those caused by malnutrition, have yet to be considered. I will only discuss two of these. The first is the loss of status; the second is the loss of traditional institutions.

We have discussed the fact that Potowatomi males have declined in status because they are no longer the principal breadwinners as they were in the era before the White man (Hamer, 1965:297). This phenomenon is seen to occur in other groups as well (Wax, 1972:207; Dozier, 1966:74). But we have not related this to alcohol use. Hamer (1965: 207) has said that "Intoxication has become a means of fantasy for regaining the high status which Potowatomi men held prior to the coming of the White man."

It has been noted that drinking has been viewed to be predominantly a male activity in some Indian communities (Cockerham, 1975:324). However, now that the Federal Government has brought in programs which effectively outperform the traditional roles of the women (Wax, 1972: 207), their role in society is also in jeopardy, and may well result in increased female alcoholism. Indeed, Ferguson (1968:161) notes that more women are drinking heavily in bars than was formerly the case.

There are a number of factors in childhood training which may bear direct influence on the attitudes of Indians toward alcoholism. One of the primary lessons that a childhood receives is that Indian society

is egalitarian (Wax, 1972:204; Kenmitzer, 1972:140), and as a result, there is little attempt to assert oneself in positions superior to another individual. Each person, even a child, is recognized as an individual (Peterson, 1972:101). This fact may play a role in the later stages of life when individuals are reluctant to interfere with another's drinking behavior (Whittaker, 1963:85; Littman, 1970:1782). This notion is fostered throughout life by an individual's interactions with his peers, which form the majority of the interactions an individual has. Parents play a small role in an individual's social life (Hamer, 1965:286; Wax, 1972:206). But the latter do educate the children to be "good Indians" through example and instruction (Kenmitzer, 1972:139). Sioux children learn to be generous & respect kinship obligations. Modesty, endurance, wisdom, and belonging to a "good family" are more important than occupation or material inventory (Kenmitzer, 1972:140). Since parents do play a role in the education of children, and because drunken behavior is so prevalent, it becomes regarded as normal behavior (Kenmitzer, 1972:139). Another lesson that Indian children learn is to be highly controlled, reserved, and unemotional (Hamer, 1965;294-295; Whittaker, 1963; Littman, 1970:1779). Overt and covert aggression among the Potowatomi, prior to the White man's arrival, could only be expressed through witchcraft, obscenity, and warfare (Hamer, 1965:294-295). The same seems to be the case for the Pine Ridge Sioux (Kenmitzer, 1972:141).

This leads directly into one of the effects of acculturation, i.e., loss of traditional institutions. As the Federal Government took control of the Indians, more Federal institutions were imposed, to the detriment of indigenous institutions (Dozier, 1966:80). Among those institutions which were lost were those which allowed for the expression of aggression (Hamer, 1965:294-295; Kenmitzer, 1972:141). The traditional methods of dealing with aggression are no longer appropriate for dealing with conflicts between relatives or other conflicts (Kenmitzer, 1972:141). Those attempts to resolve conflicts by direct argument are denigrated as the White Man's way; and the only contexts in which these behaviors are appropriate are at Tribal Councils and at Drinking Parties, both adopted from the outside under duress (Kenmitzer, 1972). Along with the bureaucratization of Indian society came a secularization of that society, and supernatural dependency and sentiments lost their impact (Hamer, 1965:296; Kenmitzer, 1972:138). The Potowatomi also lost their dances, curing ceremonies, war parties, and elaborate hunting parties (Hamer, 1965:294). Dozier (1966:83), Cockerham (1975) and Kenmitzer (1972:134) have all remarked that drinking bouts are a form of relaxation and recreation, a further reflection of the loss of traditional institutions which served these functions.

The loss of institutions which channel aggression cause the buildup of frustrations in dealing with family members, who are often the victims of crimes committed when the perpetrator is under the influence of alcohol (Kenmitzer, 1972:140; Hamer, 1965:293). This is directly in line with Wurtrich's theory. Kenmitzer (1972:134) and Graves (1967) found that socioeconomic deprivation was the basic influence which maintains the syndrome.

The last aspect of Indian drinking with which we deal is the often cited observation that the majority of the drinking that takes place in Indian societies occurs in social settings (Brody, 1971; Whittaker, 1963; Ferguson, 1968; Hamer, 1965; Cockerham, 1975; Dozier, 1966; Foulks, personal communication). Brody (1971), Ferguson (1968) and Wanberg (et al., 1978) mention that the drinking often occurs in small groups, and sharing is an important element (Ferguson, 1968; Brody, 1971). The latter is obviously an extension of the generosity ethic. People of all ages, including children, become intoxicated (Hamer, 1965; Kenmitzer, 1972; Foulks, personal communication). Kenmitzer (1972:139) remarks that babies are given bottles of beer to suckle. Both men and women drink. It is slightly more disapproved for women among the Navajo (Whittaker, 1963:35), with fewer women than men being arrested among Navajo (Ferguson, 1968:161) and Potowatomi (Hamer, 1965:471), although more Navajo women are now seen to be drinking than was the case before (Ferguson, 1968:161). This last fact may be the result of the decreasing importance of women in Indian societies as Federal institutions have come onto the reservations (Wax, 1972:207).

The sharing of alcoholic beverages among all members of a family may have other significance, too. It may be the reflection of the disintegration of the social fabric holding members of a society together. As acculturation pressures continue, the web becomes thinner, holding together only those members of the community who are associated by blood.

We now recapitulate some of the postulated reasons for Indian use of alcoholic beverages in the light of the evidence presented in this paper, and integrate caffein use. This requires an historical approach. There are three obvious periods to consider. The first is the period from the beginning of White encroachment upon the Indians until 1832, the year alcohol prohibition was imposed upon the Indians by the Federal Government; the second spans the period of prohibition, from 1832-1950; the final is that which spans the final 30 years.

During the first period, we see that there occurred, with the pressure from French and English fur traders or colonialists, a decreased utilization of indigenous protein sources as beaver and deer came to be used for their fur to satisfy the European market. Increased colonization caused the Indians to be moved to reservations. Both of these created an environment which included dietary insufficiency and increased reliance on White men's goods, which was augmented through the quest for luxury items - including xanthine-bearing substances and alcohol. Repressed aggression may have been present, but not to the extent it would be later.

During the second period, dietary insufficiency continued to be the rule and more Indian reservations were being established. Alcohol was no longer available through the traditional sources, i.e, the traders; but bootleggers did help to satisfy the demand. It is not known whether this increased the consumption of xanthine-bearing substances. Repressed aggression may have begun to be a reason for drinking alcohol, as

could have been defiance against the Federal edict prohibiting alcohol on Indian reservations.

In the last period, caffeine had become entrenched in the Indian communities and alcohol was once again allowed in Indian communities. Dietary insufficiency is still the norm. What is possibly a very sad statement to make is that now that a high alcohol consumption has been established from infancy (Kenmitzer, 1972:139), even if a balanced diet were to be given to all Indians today, it would take perhaps as long as two or three generations to normalize the alcohol intake, if human beings follow the pattern of animals (Register, 1971:161). However, since there are psychological factors which further mar the scene, it may take even longer.

THEORIES OF INDIAN ALCOHOL USE REVISITED

As was mentioned at the beginning of the last section, accultural stress is a much too facile answer when one asks why the North American Indians have an alcohol problem. That one answer is seen to be comprised of at least three major subsections: economic deprivation, loss of social status, and loss of traditional institutions. Economic deprivation, with its concomitant poor dietary intake, alone, is enough to potentiate alcohol abuse, as it does among laboratory animals. The loss of social status, itself, may be a reason for the continued reliance on alcohol as anomy takes control (Phillips, 1976). The loss of social status, in part, results from the usurping of traditional roles by the Federal Government. But, it is not inconceivable that this is aggravated by the continued use of alcohol, further eroding the status of the individual. But, alone, the loss of social status does not answer the question why the individual started drinking. Wurtrich's (1977) model takes into consideration the general environment surrounding the drinker. This can be seen to answer partially the reason why the individual began to drink. It accounts for the acculturational stresses that deal with the economic deprivation and loss of the traditional institutions. The use of alcohol and caffeine by infants and children get them used to these substances at an early age.

The only problem with Wurtrich's model is that it does not take into consideration the historical characteristics of Indian alcoholism, which has been seen to have resulted very early in Indian - White relations. From the historical component that can be incorporated in this approach, it is seen that the beginning of Indian alcoholism was in the context of a poor dietary intake and the inclusion of a xanthine-containing substance, which was aggravated by the psychological stresses associated with acculturation.

Two interesting things to note about the history of caffeine in the Indian diet is that, like its history in the Old World, caffeine was originally considered a luxury item and then became a necessity. The other fact is that, as in the American colonies at the same time,

the distributors of alcohol and caffeine-bearing substances were the same. Thus, with respect to the Native American Indians, caffeinism and alcoholism are associated as a result of the physiological similarities of the two substances, of the role of caffeine in a nutrient-poor diet and alcohol, and the cultural institutions which disseminated them to the Indians.

In conclusion, the problem of Indian alcoholism and caffeinism is of such a nature that it requires a holistic perspective. Neither the physiological, psychological, nor cultural aspects, alone, are sufficient to account for the problem. This is not to say that these perspectives are not valid; merely, it means that if social action is to occur, it needs all of them.

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