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COMMUNITY CONTROL OVER HEALTH PROBLEMS: ALCOHOL PROHIBITION  
IN A CANADIAN INUIT VILLAGE

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In this paper I will describe the process whereby a Canadian Inuit community brought about alcohol prohibition and its general effects on the community over a four-year period. The paper is based on ethnographic research carried out during two years: the first in 1978 when the village voted to prohibit alcohol and the second in 1982. Standard epidemiological methods were considered inappropriate due to the small size of the community and the very low incidence rates for health indicators such as suicide, accidental deaths, and family violence. In-depth interviewing with community leaders, elders, and administrators provided a descriptive social history of processes leading up to prohibition and the general response of both non-drinkers and drinkers to the new restriction. Participant-observation with both White and Inuit illegal drinkers provided an understanding of changing drinking styles, associated health problems, and community reaction to bylaw violations. The paper concludes that alcohol prohibition contributed to an increase in family integrity and respect between genders and generations, an increase in youthful interest in traditional values and lifestyles, a decrease in abuse of other destructive substances, and an increase in hostility between Inuit and White ethnic groups where Whites were perceived as flagrant violators of a locally constituted bylaw.

While many observers have noted the alarming rise of alcohol-related health problems among Canadian Inuit, there have as yet been no evaluations made of the primary Inuit initiative to control alcohol abuse, namely, prohibition. Prohibition for most Westerners conjures up many negative and offensive images. As I have argued elsewhere, however, prohibition in Canadian Inuit villages is a regulatory option made available by the territorial government, and its selection and support by Inuit in the villages is a product of decidedly Inuit negotiations occurring within locally controlled institutions such as the Hamlet Council and churches (1). It has not been forced onto Inuit by Whites (as was the case with prohibition on Canadian Indian reserves) and in fact, most Whites in the "alcohol abuse business" would probably prefer a less authoritarian alternative (2). Since 8 of 25 Inuit villages with populations of between 200 and 1,000 now prohibit alcohol completely (all since 1978), research into the effects of prohibition on community life should be a high priority. This paper represents a preliminary attempt

to evaluate this tactic for the primary prevention of alcohol abuse.

Prior to the shift to a sedentary village society, alcohol use was unknown among Inuit in the central Canadian Arctic. Although a trading post and religious missions had been active in the area since 1930, it was not until 1965, with the opening of the public school and the start of the Northern Rental Housing Program, that settled life began on a year-round basis. The first residents came from a quite diverse range of "tribal" backgrounds covering a large geographic region; as a result, there was little initial sense of community. As subsistence strategies changed to include wage labor, families competed for access to these scarce new resources. Jealousy, envy, and suspicion increased. The new religious institutions created factional conflict which overlay traditional band rivalry. Problems and conflicts had been traditionally resolved within extended family groups and since indigenous procedures for dealing with community-wide problems were non-existent, authority was largely assumed by Whites (3,4). For a people who considered self-reliance and individual autonomy as paramount virtues, these new conditions were intolerable. When alcohol was introduced by Whites and Inuit from other regions into these stressful conditions, problems were exacerbated. Inuit feel that by brooding or worrying about a problem, a person can make himself ill. Emotional management is an important preventive health strategy; by avoiding "bad feelings" or depression, sadness, or guilt, a person also avoids physical illness. Many Inuit indicated that they initially thought of alcohol as a medicine. Village life seemed to provide more sources of worry, and alcohol seemed to provide an antidote similar to other White remedies for other new diseases.

Other anthropologists have written about Canadian Inuit alcohol use during the late 1960s and early 1970s (5,6,7). They argue for an approach that recognizes variation in the role and effects of drinking and situates alcohol use within Inuit understandings of social structure and kinship obligations. Brody (7) warns that if economic development in the North continues without meaningful Inuit involvement, more and more Inuit communities will become "skid rows."

By the late 1970s, Brody's warning had been realized in some of the larger Inuit communities particularly. Health statistics since the mid 1970s have shown an

alarming increase in alcohol-related morbidity and mortality. Many Inuit have expressed concern for this growing problem and a variety of solutions have been discussed. The first attempt to control the problem was in Frobisher Bay in 1976 when the liquor store was closed. Since then, 8 Inuit communities have voted for total prohibition, 2 have a system of interdiction for problem drinkers, 2 have rationing system, 2 have closed their liquor outlets, and 10 have set up alcohol committees and hired counsellors.

The perception of alcohol abuse as a local problem was determined largely by the village elders and religious leaders. Various informants in 1977 expressed concerns that alcohol was contributing to a drastic increase in family violence and a breakdown in moral codes for behavior. Although the number of individuals involved was low, extended families were often called in to mediate conflicts. Cases were cited where brothers fought with each other, husbands beat their wives, adulterous behavior increased, and children were afraid to go home. For those who found these situations abhorrent, but who were nonetheless involved when mediation was required, alcohol abuse seemed to constitute a major threat to community life.

The incidence rate for alcohol-related problems remained low in comparison to other settlements in the North. Whites and Inuit alike commented that this village was friendly, peaceful and quiet. Many local Inuit expressed concern about visiting or travelling through other towns and villages where alcohol use was more widespread and violence more prevalent. Nonetheless, people expressed concern that they were losing control over their own lives and the future of their community. Old people argued that alcohol made a person lose his reason. They worried that if adults continued to act like children, their very survival would be compromised.

To deal with the problem, the community had to reach consensus on a new level of decision-making. Creating a community out of the groups of previously separate family groups occurred largely through the efforts of Inuit leaders in the Anglican and Catholic church. Both churches had been administered since the early 1970s by Inuit lay preachers and elders, and they had attracted large congregations. While there had been some factional rivalry between the two congregations earlier in the village's history, by the mid-1970s relations were less strained. Traditional messages of morality and ethics were reinterpreted through Christian doctrine and people were looking increasingly to the churches for moral guidance.

The village council, established in 1970 and initially an advisory body to White bureaucrats, eventually became the village's main political force. Councillors were elected largely from the leadership in the two churches and council activities expanded quickly beyond routine municipal affairs to include both inter- and intrafamilial conflict resolution. Together, these two institutions have been the major forums for the generation of communal values and supra-familial obligations; ideas foreign to the emphasis on seniority and kindred loyalty which characterized traditional Inuit society.

Another important historical factor was the absence of a police detachment in the village. Consequently, instead of directing aggression towards this symbol of White society, social offenses such as theft and vandalism continued to be understood as internal transgressions rather than acts against a foreign institution.

Several alcohol-related violent deaths involving young people sparked the movement which culminated in prohibition. Church leaders had been warning the community that continued adulterous behavior and intra-familial squabbles under the influence of alcohol would not go unpunished, and they were now able to invoke supernatural restitution as a factor in these accidental deaths. People began to accept the interpretation that drunkenness was akin to possession by an evil spirit. While this explanation absolved individuals from responsibility for their actions, it also fueled the religious arguments to banish alcohol from the community.

These arguments preceded the awareness that prohibition was a legal possibility. Church sermons advocated prohibition months before the council was advised regarding appropriate strategies for holding a plebiscite. White advisors from the various health, social, and corrective service agencies usually argued against prohibition and for a research and education solution at council meetings. However, when the plebiscite was finally held, there was an 83% voter turnout and a 96% vote in favor of prohibition, at a time when roughly a third of local Inuit were drinking alcohol regularly. Many individuals who enjoyed drinking indicated that they voted in favor of prohibition because they felt it was in the best interests of their children and in the long-term interests of the community.

When prohibition came into effect, two families decided to move to wet towns; their decision to move in part related to their desire to continue drinking. One of these families has since returned, and reported that they were unable to endure the alcohol-related problems in the other village.

In the spring of 1982, nine new families from wet villages relocated to the dry town, despite its reputation for high unemployment and a heavy welfare load. No one moved away, although several middle-aged men indicate they make occasional trips to wet villages in order to "party."

For a year or so immediately after prohibition, alcohol consumption virtually disappeared. Now, illegal drinking does occur, but offenses are rare and drinkers take care to camouflage their activities. During the three years of prohibition, there have been five charges brought against people for illegal possession of alcohol in a restricted area, four of them arising from the same incident in 1981. In each of these cases, the offenders provided alcohol to other local people and the parties became public knowledge.

These arrests, however, do not represent the total incidence of drinking that actually occurs. Most illegal drinking takes place in the company of one or two trusted friends (who may or may not be related) and rarely progresses beyond moderate use. Clandestine drinking is complicated by the patterns of Inuit visiting which make it difficult to lock doors or drink unobserved by non-drinkers in the village. Visitors often walk in unannounced and must be soberly offered tea. Aggressive behavior has virtually disappeared. Despite these attempts by drinkers to disguise their drinking, most people in town are generally aware of who is drinking illegally. There seems to be a tacit agreement in the community that as long as drinkers keep their activity private and do not cause public disruptions, no action will be taken. The prevalence of illegal drinking is difficult to estimate but my guess is that about 10 Inuit households (out of approximately 80) and 4 White households (out of 14) are involved. For Inuit, however, supplies are difficult to obtain and even the "heaviest" drinkers rarely consume more than three or four 40 oz. bottles in a year.

Illegal drinking in the White community has as yet gone unpunished. Whites are very adept at camouflaging their drinking activities. They are able to lock their doors to visitors and spend entire weekends isolated from the community. Knowledge within the White community of who is drinking is widespread, but those who do not drink protect those who do. Whites find it much easier to secure supplies from sympathetic colleagues visiting from wet towns who will exchange a bottle for hospitality. White heavy drinkers are sometimes drunk every weekend.

Because of the concern for anonymity and fear of the consequences of exposure (for Whites, probably dismissal from their jobs), inter-ethnic drinking has virtually

disappeared. As a result, White involvement in underage drinking and sexual exploitation, a major problem in the early 1970s, has also largely disappeared, and contributed to a slight reduction in inter-ethnic tension.

Enforcement of the prohibition bylaw has relied primarily on community pressure. For the reasons described above, it is very difficult to drink unobserved, and those who risk it are fully aware that the penalty may be social ostracism. The threat of police action is reserved for those who flagrantly disregard community standards. (In the arrest cases mentioned above, the council requested the Royal Canadian Mounted Police to come to the village and charge the offenders.) Whites however, stand outside this system by avoiding any alcohol-related social interaction with Inuit. However, Inuit generally know which Whites are drinking and many resent their disregard for a local bylaw. The young Inuk bylaw officer, whose task it was to report liquor infractions to Council, was advised by one local White that he ran the risk of libel action if he made any unsubstantiated allegations (i.e., no empty bottles with fingerprints).

Aside from these general changes in drinking patterns, what specific effects has prohibition had on the town's youth, the group most at risk in situations of high substance abuse? Young people in this dry town appear to be better off than their counterparts in wet villages. They are generally in superb physical condition, emotional problems are minimal, and they are relatively well-integrated into the social life of the community. Those people who do experience difficulty are not pushed to the extremes that so often end in tragedy elsewhere.

Although most young people are familiar with "getting high," few youth now show any exaggerated interest in drinking or the use of other drugs. Many expressed views that they felt fortunate to be living in a dry town. On two occasions, I travelled with a group of teenagers to wet towns, and was surprised at how many avoided parties and showed no interest in drinking. In several instances, young men selectively chose to stay with relatives known to be abstainers when visiting wet towns. Many also indicated they got homesick easily for their own village's quiet, peaceful atmosphere, and had little interest in going elsewhere for education or employment.

The absence of alcohol also seems to decrease the opportunities and temptation to use other substances; a finding in contrast to some professional expectations that abuse of more dangerous substances may increase if alcohol is not available. Most youth indicated that although they had experimented with marijuana when the town was wet,

both it and gasoline sniffing, which was once fairly prevalent among young teenagers, had virtually disappeared. Where use of these substances did occur, it was almost always provoked by teenagers visiting from other towns. It seemed that without the adult example of "getting high," using other substances had little appeal.

For those people in their late teens and twenties who once had drinking problems (as indicated by arrest records, alienated families, etc.), prohibition has had a profound impact. In wet contexts, the continual round of parties leads to fighting and bouts of depression. Although problem drinkers talked about parties and about ways to smuggle booze into the village, in actuality they rarely drank and in fact avoided travel to wet villages. Many admitted that they were happy to live in a dry town because they considered it the best way to control their drinking.

To conclude, I have described a situation where the prohibition of alcohol was initiated by the Inuit leaders in a community to cope with the locally perceived problem of alcohol abuse. It has "worked" extremely well in the sense that alcohol-related problems have virtually disappeared. It has been successful in part because enforcement of the by-law is through local social pressure without reliance on White law enforcement officers. For particularly stressed groups such as youth, the dry town provides an environment where young people can cope constructively with other problems with more confidence and self-assurance. How long these effects will last can be expressed best in the words of one of the town's elders:

Before White people came into the North we knew nothing about alcohol. We had good lives and were happy without alcohol. Our ancestors survived for many, many years without alcohol. What use is alcohol then? It has only caused problems.

Our lives are better now that we no longer have alcohol to worry about. I hope we never have alcohol here in the future. I would like to see alcohol banned forever.

## ACKNOWLEDGMENTS

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## **The Prevention of Alcoholism: Epidemiological Studies of the Effects of Government Control Measures\***

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### **Abstract**

*Widely used control measures such as the monopoly system and restrictions on the number and type of alcoholic beverage outlets, and on hours of sale appear to be much less powerful determinants of regional and temporal variation in the prevalence of alcoholism than taxation policy. It is found that where or when the price of beverage alcohol relative to average disposable (real) income is high, indices of alcohol consumption and alcoholism are usually low, and vice versa. Differential taxation (involving a disproportionately high tax on spirituous liquors) appears to be effective temporarily, but to result ultimately in the substitution of another beverage source with an increase in consumption and alcohol problems. This is consistent with other evidence which indicates that the overall level of alcohol consumption in a population, regardless of beverage source, determines the prevalence of hazardous consumers and of alcohol-related organic pathologies. The nature of a taxation policy which might be expected to prevent increases, and perhaps achieve a reduction in prevalence is outlined. However, an appropriate program of public education would probably be required in most jurisdictions to render the implementation of the policy fully effective and politically feasible.*

Over the years a substantial part of the research endeavour of the Addiction Research Foundation of Ontario has been concerned with the causes of regional and temporal variation in the prevalence of alcohol consumption and alcoholism. Among the possible contributing factors which have been studied, special attention has been given to certain legislative and other governmental measures intended to prevent the problems of alcohol. Our purpose is to review this aspect of the work and discuss its practical implications. However, it should be stated at once that none of our results to date suggest any means of prevention in the absolute sense of the term. But they do indicate how—at least in theory—further increases in prevalence might be prevented, and even a limited reduction brought about.

### *The Primary Data*

From an epidemiological standpoint, the initial task was to establish that there was, in fact, substantial variation in rates of alcohol problems or alcoholism from one place or period to another. For this purpose suitable indices were required since the prevalence of alcoholism is not regularly reported as such by any jurisdiction. Following the lead of earlier workers—especially E. M. Jellinek<sup>22</sup>—we began by gathering and evaluating statistics of alcoholic beverage sales, arrests for drunkenness

\*From the Addiction Research Foundation of Ontario, 33 Russell Street, Toronto, Canada. This paper is a revision of a presentation to the Symposium on Law and Drinking Behavior, Chapel Hill, N.C. 1970. A more detailed examination of the topic will appear in the proceedings of the Symposium to be published under the editorship of J. A. Ewing and B. A. Rouse by Nelson-Hall, Chicago 1975.

and other alcohol-related offences, hospital admissions for alcoholic conditions, mortality from causes associated with heavy alcohol use such as liver cirrhosis, and various other regularly reported alcohol-associated events. We did this for many countries and parts of countries, and for as many years back in time as we could, in each case.<sup>9,54</sup>

Considerable work was done with these data but for present purposes just two results are important:

(1) We satisfied ourselves that, despite certain shortcomings, several of these statistics could be employed as valid indicators of the magnitude of alcohol problems in an area. Most particularly, reported liver cirrhosis mortality proved to vary in close association with variations in the prevalence of alcoholism. This association was assumed by Jellinek in order to develop an alcoholism prevalence estimation formula;<sup>17</sup> it has been verified since through case-finding surveys and other methods in Ontario and elsewhere.<sup>58</sup>

(2) We found very considerable differences in the indicators from one area to another, and in most jurisdictions there was also substantial variation through time. This variation was not due primarily to errors in the indices but presumably to real variation in the amount of alcohol consumed and in the prevalence of alcohol problems.<sup>42</sup>

#### *The Monopoly System, Outlets and Hours of Sale*

The next task was to examine certain control measures widely believed to affect the prevalence of alcohol problems. For this purpose, jurisdictions having a government-controlled monopoly system were compared with those in which liquor sales were in the hands of private enterprise; the old questions of hours of sale and outlet rates (i.e., the number of stores and public drinking places per unit of population) were studied; and we looked at the effect of diversification of licensed drinking places, notably, the introduction of cocktail and dining lounges in Ontario.

Generally, these variables did not seem to be related in any important degree to the indicators of alcohol problems employed. As shown in Table 1, the monopoly states of the U.S.A. (about one third) did not differ significantly from the license states in level of consumption or liver cirrhosis mortality.\*

Similar findings have been reported by Simon<sup>73</sup> with respect to per capita consumption under each system, and by Jellinek<sup>22</sup> who analyzed trends over the period 1930 to 1945. The latter could find no evidence of an effect on "rate of inebriety", and in the case of consumption trends concluded that "the monopoly system did not prevent fairly large increases; nor did the license system lack small increases" (p.16). However, it is well to stress that in contrasting monopoly and license states, we are not comparing "control" with "no control". There are many important differences in the administration of the monopoly system among the states which have adopted it.<sup>5 30 73</sup> And there is evidence that in countries with a government monopoly which has emphasized vigorous control rather than maximization of revenue, a substantial decrease in alcohol consumption and attendant

\* The slightly larger values for the license states may reflect the differences in urbanism between the two groups. This factor is well known to be associated with variations in alcohol consumption and alcoholism;<sup>70</sup> but its influence may depend primarily on the higher income levels prevailing in more urban areas.<sup>53, 57</sup>

problems may be achieved.<sup>13</sup> But in these cases, the question is whether or not the particular controls which proved effective could not have been exercised as well under a licensing system as under state ownership.

**Table 1.** Mean Apparent Alcohol Consumption in Spirits, Wine and Beer, Liver Cirrhosis Mortality and Index of Urbanism for Monopoly and License States of the U.S.A. 1964.

	Monopoly States (17)	License States (30)	t-test
Spirits Consumption*	3.45 ± 1.22	4.03 ± 1.63	N.S.
Wine Consumption†	0.59 ± 0.29	0.83 ± 0.44	N.S.
Beer Consumption‡	4.04 ± 1.21	4.17 ± 1.25	N.S.
Total Alcohol§ Consumption	8.08 ± 2.28	9.07 ± 2.93	N.S.
Liver Cirrhosis¶ Mortality Rates	15.5 ± 3.92	18.6 ± 6.34	N.S.
Index of Urbanism**	26.41 ± 13.13	35.00 ± 16.25	N.S.

\*Based on data in: Apparent Consumption of Distilled Spirits, 1964, Distilled Spirits Institute, Washington, D.C.

†Based on data in: Wine Institute Bulletin, 1964, Wine Advisory Board, San Francisco, Calif. California, which is a license state, has been omitted in the case of wine consumption. When included the t-test shows a significant difference at the 5% probability level.

‡Based on data in: Brewers Almanac, 1964, New York, N.Y.

§All consumption figures are expressed as litres of absolute alcohol per capita of population aged 18 and older.

¶Based on data in: Liver Cirrhosis Death Rate of Population 21 Years and Older, 1964, U.S. Dept. Health Education and Welfare, Washington, D.C.

\*\*From Schmidt and Bronetto.<sup>64</sup>

Hours of sale in both package stores and public drinking places are now, and have been for many years widely regulated in the belief that this is an effective control measure. In Toronto, an apparent correlation with tavern closing hours was found in the pattern of arrests for drunkenness exhibited between 8.00 a.m. Monday and 8.00 a.m. the following Sunday. However, when arrests were plotted for each hour from 8.00 a.m. Sunday to 8.00 a.m. Monday morning—during which time all taverns were closed—an almost identical pattern emerged.<sup>56</sup> This would suggest that hours of sale reflect the drinking habits of the community rather than the reverse. On the other hand, the closing hours which prevailed at the time of the study had been in force for many years, and originally may have shaped the characteristic pattern observed.

The effects of hours of sale deserve further research, preferably utilizing jurisdictions in which there have been substantial changes, and for which statistical indicators of drinking and alcohol problems are available for long periods before and after. Certainly in the United Kingdom, where closing hours have been deliberately manipulated in an effort to control insobriety, there is some conviction that this is an effective approach. For example, Shadwell<sup>71</sup> contends that measures such as "shorter hours and higher taxation . . . have proved really efficacious, while others—particularly State ownership and control, the reduction [in number] of licensed houses, alteration of premises, disinterested management and supply of food—have failed to exert any perceptible influences on sobriety and public order" (p. 150).

Over the centuries governments have frequently sought to minimize the prevalence of insobriety by reducing the number of sales outlets, especially those for on-premise consumption. The assumption appears to be that the more places there are for people to drink, the more they will consume and the more drunkenness there will be. The available data for Canada did not support this assumption.<sup>52, 54, 56</sup> Indeed, for the provinces and major cities, the highest drunkenness rates tended to occur where there were fewest outlets per unit of population. In Ontario, prior to Prohibition in 1916, alcohol consumption, liver cirrhosis mortality and drunkenness conviction rates were all comparatively high; so also were tavern rates. But following the re-introduction of on-premise outlets in 1934, the number of such establishments per 100,000 has remained very much below pre-Prohibition rates. Yet the indicators mentioned have all achieved levels during the last 20 years markedly higher than in any previous period for which figures are available.

The results of a correlation analysis of data for England and the United States are shown in Table 2. All four coefficients are non-significant, and those for England again suggest a slightly inverse relationship. This has also been reported by Mass Observation<sup>45</sup> for a different series.

**Table 2.** *Correlations between outlet rates and indicators of Alcohol Problems in England and the United States*

Series	No.	Variables	Linear Coef.
English county boroughs	84	Convictions for drunkenness & on-premise licenses per 10,000 population*	-0.18
English counties (excl. boroughs)	52	Ditto*	-0.19
States of the U.S.A. (incl. D.C.)	49	Taverns per 100,000 & alcohol consumption per cap. aged 15 & older†	+0.16
States of the U.S.A. (incl. D.C.)	49	Taverns per 100,000 & alcoholics per 100,000 aged 20 and older†	-0.01

\*Based on data in: Home Office Licensing Statistics 1938, H.M. Stat. Off., London 1939, Tables H & J.

†Based on population and tavern data in: Beverage Distilling Industry: Facts and Figures 1934-1945, Lic. Bev. Ind., New York 1946, p. 164 et seq., and on consumption and alcoholism rates in: Jellinek,<sup>22</sup> Tables 10 & 17.

A closely related question concerns the consequences of tavern diversification. Beginning in 1947, cocktail and dining lounges were permitted in Ontario. Essentially, this meant a slight increase in outlet rates, the sale of spirituous liquors for on-premise consumption, and higher standards of décor for the establishments licensed to sell such beverages. Pre-existing outlets catered primarily to the Working Classes; the new establishments were intended to attract a Middle Class patronage.

In a preliminary attempt to study the effects of these innovations, changes in consumption, drunkenness and alcoholism rates before and after 1947 were examined. Trends in the adjacent Province of Manitoba—where no significant

changes in liquor legislation had occurred over the period—were included by way of control data. The results are shown in Table 3.

**Table 3.** Comparison of Changes in Consumption, Drunkenness and Alcoholism Rates in Ontario and Manitoba before and after the Diversification of Taverns in Ontario 1947\*

Year	Alcohol Consumption†		Drunkenness Convictions‡		Alcoholism Rate§	
	Ontario	Manitoba	Ontario	Manitoba	Ontario	Manitoba
1939	3.55	2.09	650	185	1095	930
1946	5.82	4.27	962	502	1150	970
1947	6.30	5.27	996	463	1290	925
1954	7.73	6.00	1070	672	1860	1460
% Change						
1939-1946	+64	+104	+48	+171	+5	+4
% Change						
1947-1954	+19	+14	+7	+45	+44	+58

\*All of the data used are tabulated in Popham and Schmidt<sup>54</sup> where primary sources are cited in detail.

†Litres of absolute alcohol per capita aged 15 and older.

‡Per 100,000 persons aged 15 and older.

§Estimated by means of the Jellinek Formula adapted to Canadian data<sup>55</sup> and expressed as alcoholics per 100,000 aged 20 and older.

The more rural character of Manitoba and its lower average income level are reflected in lower rates throughout than in Ontario. However, with the exception of alcoholism rates, the percentage increases were much greater in both provinces before than after 1947. From 1947 to 1954 consumption increased somewhat more in Ontario than in Manitoba, but drunkenness and alcoholism rates showed greater increases in Manitoba.

Findings similar to the foregoing have been reported by others. Thus, Bryant<sup>11</sup> could find no evidence that increases in consumption or alcohol-related offences could be attributed to the introduction of "liquor by the drink" in the State of Washington. With respect to the reduction of outlet rates, we have already alluded to work in the U.K. In the United States, Entine<sup>16</sup> concluded that limiting the number of package stores did not reduce off-premises consumption. On the other hand, Simon<sup>73</sup> found per capita consumption to be related positively to outlet rates, but felt, on further analysis, that this variable was "more likely to respond to consumption, rather than be a cause of consumption" (p. 193).

Finally, a word should be said about the case of extremely low accessibility. The variation in outlets with which we have been concerned ranges from situations where they are ubiquitous to those where some customers are mildly inconvenienced. In certain areas, such as parts of northern Canada, the nearest outlet to some communities may take a costly day to reach. Under these circumstances, the introduction of new outlets may have an appreciable effect on consumption. Indeed, the results of Pekka Kuusi's famous sales experiment in rural Finland would seem to support this conclusion.<sup>29</sup> At the same time, there was little evidence of an increase in alcohol problems, and some evidence of a compensatory decline in illicit production.

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*The Effect of Relative Price*

At first the failure to find a clear and positive relationship between outlet rates and our indicators of alcohol problems was rather puzzling. As previously noted, regulation of the number of outlets as a measure to reduce consumption and in-sobriety is often encountered in the history of alcohol legislation. And among members of the public there is a very widespread notion that this aspect of accessibility is an important factor in alcohol problems. It is instructive to observe, however, that local opinion is divided on the topic: some cite the "forbidden fruit" concept and argue that if alcohol were everywhere available man would not desire it so much and would drink in a moderate and civilized manner. Others argue that an increase in accessibility would simply increase his temptation to drink and so there would be more "abuse".<sup>12, 83</sup>

We came to feel that the problem lay in the assumption underlying both of these views, notably an assumption, fostered especially by the Temperance Movement in this and other countries, that the demand for alcoholic beverages is qualitatively different from that for other commodities and consequently not subject to the same factors as affect the demand for other consumer goods. For example, probably no one would expect an increase in the number of television stores to increase the prevalence of television sets. Actually, if there are too few stores some customers simply will be inconvenienced, and if there are too many some stores will go out of business. We think the situation is about the same in the case of alcoholic beverage outlets (at least, within certain limits: the effect of total Prohibition or extreme rarity are special cases). On the other hand, just as one would expect sales of television sets to be influenced by their cost, so also this would seem a likely, if not obvious determinant in the case of alcoholic beverage consumption.

Certainly governments have recognized for centuries that the taxation of alcoholic beverages is a lucrative source of revenue. And there are probably few, if any jurisdictions today (where such beverages are legally sold at all) in which there is not some tax imposed upon them. However, it is now rather uncommon to find price control through taxation justified as a means to reduce consumption and inebriety. In older statutes and government reports this was quite frequently done. To give one local example, in the Third Report of the Liquor Control Board of Ontario for the year 1929, the following assertions are made: "economic conditions, rather than laws, influence the gross sale of liquor . . . . Beyond all doubt consumption increases with low prices, and decreases with high prices". And with reference to decreased drunkenness in the U.K., despite the comparatively large number of outlets, it is said: "While propaganda has been carried on against drunkenness, the best informed workers and observers are generally of the opinion that the higher cost of spirits coupled with industrial conditions and unemployment largely contribute to the decreased consumption". (p.10).

With a few notable exceptions e.g.,<sup>21, 47, 69, 79</sup> contemporary students of alcohol problems have given little or no attention to the effects of price variation. There have been several econometric studies, but these have been concerned mainly with methodological and theoretical questions, and consider only per capita consumption as a dependent variable.<sup>48, 72</sup> Accordingly, it seemed to us worthwhile to extend Seeley's earlier work on the topic,<sup>69</sup> and attempt to deal with the principal issues raised by the results.

The important variable, as Seeley had noted,<sup>69</sup> was not absolute price, but price relative to income, i.e., the apparent ability to buy. Hence, this index was used throughout: the average price of a given quantity of alcohol expressed as a fraction of average disposable income.

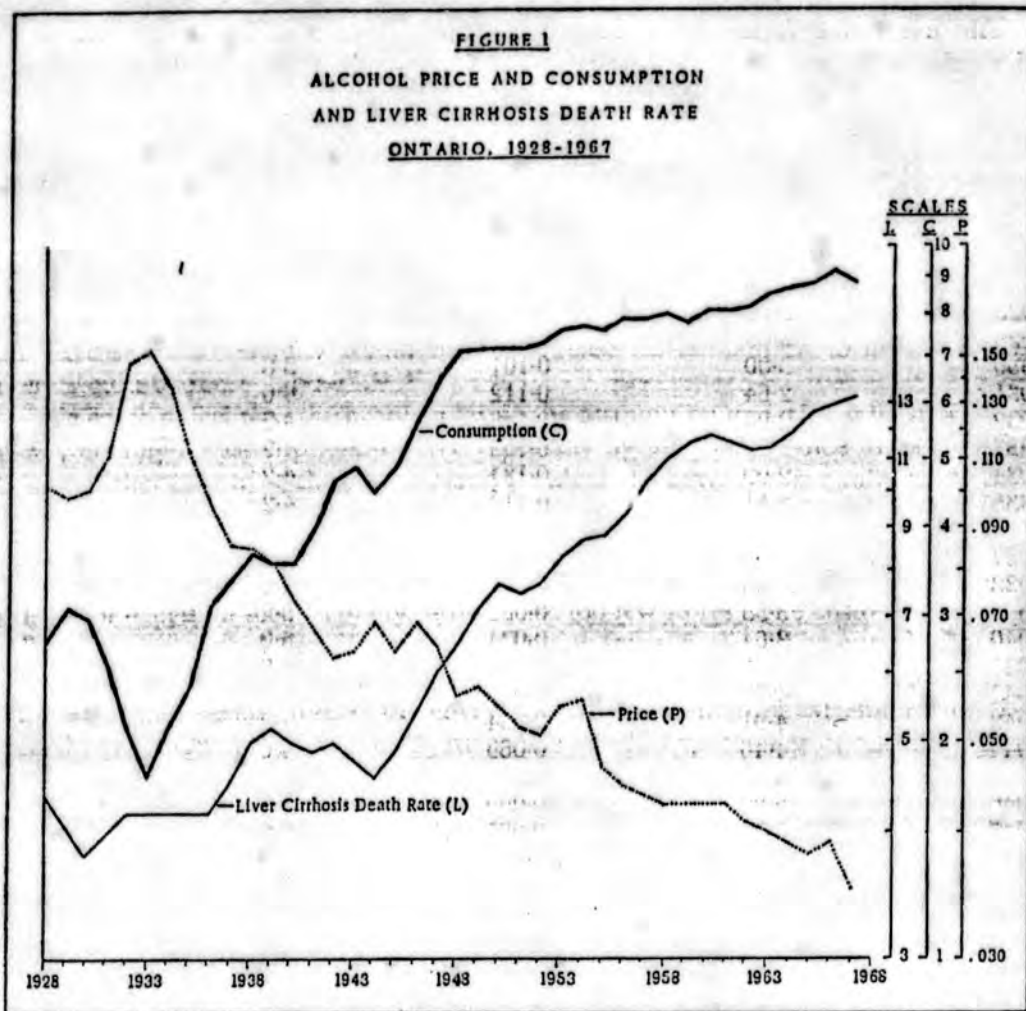
**Table 4.** Consumption of Alcohol, Relative Price of Alcohol and Deaths from Liver Cirrhosis, Ontario 1928-1967

Year	Alcohol Consumption*	Relative Price†	Deaths from Liver Cirrhosis‡
1928	2.81	0.102	4.4
1929	3.09	0.099	4.1
1930	3.00	0.101	3.8
1931	2.64	0.112	4.0
1932	2.05	0.148	4.2
1933	1.77	0.153	4.2
1934	2.09	0.137	4.2
1935	2.41	0.112	4.2
1936	3.05	0.097	4.2
1937	3.36	0.086	4.5
1938	3.68	0.085	5.0
1939	3.55	0.082	5.2
1940	3.64	0.074	5.0
1941	4.00	0.068	4.9
1942	4.73	0.063	5.0
1943	4.91	0.064	4.8
1944	4.46	0.069	4.6
1945	4.86	0.064	4.9
1946	5.82	0.069	5.4
1947	6.50	0.065	6.0
1948	7.09	0.057	6.5
1949	7.18	0.058	7.2
1950	7.23	0.055	7.7
1951	7.23	0.052	7.5
1952	7.32	0.051	7.7
1953	7.64	0.055	8.3
1954	7.73	0.056	8.7
1955	7.55	0.047	8.8
1956	7.91	0.045	9.4
1957	7.86	0.044	10.3
1958	7.96	0.043	11.0
1959	7.77	0.043	11.5
1960	8.14	0.043	11.8
1961	8.14	0.043	11.6
1962	8.23	0.041	11.3
1963	8.46	0.040	11.4
1964	8.73	0.039	11.9
1965	8.77	0.038	12.6
1966	9.18	0.039	12.9
1967	8.91	0.035	13.2

\*Litres of absolute alcohol per capita aged 15 and older.

†Average price of 10 litres of absolute alcohol divided by personal disposable income.

‡Centered two-year moving averages of deaths from liver cirrhosis per 100,000 age 20 and older, corrected to allow for the effects of the Sixth Revision of the I.L.D.C.D. All sources of primary data for this table are listed in Popham and Schmidt.<sup>54</sup>



The role of relative price was examined in virtually every jurisdiction for which the relevant data were available: both regionally and, where possible, through time.<sup>8, 36</sup> *Almost universally relative price was found to be very closely associated with indices of consumption and alcoholism: where relative price was high, consumption and liver cirrhosis mortality were low and vice versa.* In Figure 1, the remarkably close association of these variables is shown graphically for a period of 40 years in Ontario. The data upon which the graph was based are provided in Table 4.

Thirty years ago, Jolliffe and Jellinek<sup>25</sup> argued that the death rate from liver cirrhosis was closely related to alcohol consumption rates. Since then a very substantial body of epidemiological evidence has been accumulated to support this contention.<sup>10, 32, 58</sup> Nevertheless, a criticism still commonly heard is that a chronic disease cannot be expected to respond so quickly to transitory changes in the etiological factor. However, as Terris<sup>77</sup> has pointed out, in the case of liver cirrhosis: "This phenomenon is consistent with the clinical course of the disease. In many cases the cirrhotic process can be halted and decompensation prevented by avoiding

further use of alcohol. Conversely, resumption of heavy alcohol use after a period of abstinence can decompensate a previously injured liver in a relatively short period of time". (p. 2078). In practice, one would expect a slight lag in the mortality trend since advanced cases probably will die prematurely even in the absence of drinking. Such a lag is quite evident in the Ontario trend.

A further illustration of the role of relative price is provided by the international data in Table 5. In countries where alcoholic beverages are relatively cheap, the per capita consumption is usually high. However, the association is certainly not perfect and such exceptions as The Netherlands are especially noteworthy. This point will be considered in the discussion section below.

**Table 5. Cost of Beverage Alcohol Consumption and Liver Cirrhosis Mortality in Various Countries**

Country	Alcohol Consumption*	Relative Price†	Deaths from Liver Cirrhosis‡
France	24.66	0.016	51.7
Italy	18.00	0.027	30.5
Portugal	17.57	0.023	48.0
Austria	14.47	0.025	38.5
W. Germany	13.63	0.026	29.0
Australia	10.71	0.029	7.8
Czechoslovakia	10.27	0.080	14.8
Canada	8.95	0.029	11.6
Belgium	8.42	0.022	14.2
United Kingdom	7.66	0.057	4.1
Rep. Ireland	7.64	0.092	5.0
Denmark	7.50	0.069	11.6
Netherlands	6.19	0.028	5.7
Finland	4.16	0.117	5.4

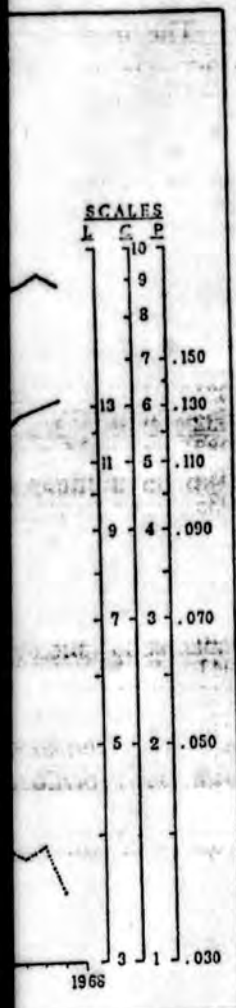
\*Litres of absolute alcohol per capita aged 15 and older (years 1966 or 1967). For sources see de Lint and Schmidt.<sup>42</sup>

†The cost of 10 litres of absolute alcohol as contained in the least expensive beverage available to the consumer divided by personal disposable income. Data were obtained through personal communications with the appropriate government departments in each country.

‡Per 100,000 aged 20 and older. Data were obtained from the: Demographic Yearbook 1966, United Nations, N.Y., 1967.

#### Specific Beverage Consumption

We felt that before relative price control could be accepted as a potential means to reduce the prevalence of alcoholism, there were two further questions in particular which would have to be answered. The first was the validity of the common assertion that the different types of alcoholic beverage are not equally to blame for pathological drinking. Frequently this view reduces to the contention that beer is the drink of moderation and spirituous liquor is the real culprit. It is a view which has often been embodied in reports and briefs to government on the liquor question; and a few students of alcohol problems have argued in a similar vein e.g.<sup>24, 47, 80</sup> If true, then



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Again we examined the literature and documentary statistics for many different jurisdictions but this time taking into account the class of alcoholic beverage favoured: beer, wine or spirits. On an international basis we failed to find evidence to indict any one class of beverage over another;<sup>39, 42</sup> in some areas beer was the exclusive beverage of choice of many pathological drinkers, e.g., Australia,<sup>82</sup> Czechoslovakia,<sup>75</sup> and southern Germany;<sup>33, 35</sup> nor was the prevalence of alcoholism by any means low in these areas. In our own clinical alcoholic population, in Ontario, beer was very commonly the principal beverage used by the patients.<sup>38, 63</sup> And in the medical literature generally, there was a substantial body of evidence implicating heavy beer consumption in ailments such as liver cirrhosis and myocardial disease e.g.<sup>1, 2, 18, 35, 46, 74</sup> Wallgren<sup>81</sup> has recently reviewed some of the experimental and clinical data bearing on this question, and concluded that type of beverage is largely irrelevant; total alcohol consumed being the significant variable.

In Table 6, it may be seen that when consumption is held constant by pairing countries with a similar per drinker rate, liver cirrhosis death rates show little relationship to the contribution of spirituous liquors.

**Table 6.** *Liver Cirrhosis Mortality, and the Contribution of Spirituous Liquors to Total Consumption in Countries with Similar Per Drinking Consumption Rates*

Country	Per Drinker Consumption*	% Contribution of Spirituous Liquors to Total Consumption	Liver Cirrhosis Mortality†
Austria	16.0	18.2	38.5
W. Germany	16.0	21.2	29.0
Luxembourg	12.5	13.0	37.2
Hungary	12.5	21.8	14.4
United Kingdom	10.9	14.2	4.1
Rep. Ireland	10.9	34.4	5.0
Denmark	9.4	17.2	11.6
Belgium	9.3	15.0	14.2
Finland	5.9	46.7	5.4
Norway	5.9	45.8	5.3

\*Consumption data were obtained from: Dutch Distillers Association Annual Report for 1968, Schiedam, April 1969. The percentage of users among persons aged 15 and older was estimated from available survey data for each country.

†Per 100,000 aged 20 and older. Data were obtained from the: Demographic Yearbook 1966, United Nations, N.Y., 1967.

Of special interest are the figures for Belgium and Denmark. In these countries large increases in the cost of spirituous liquors led initially to a considerable decline in overall consumption.<sup>47, 60</sup> Moreover, in Denmark at least, this was apparently responsible for a sharp drop in the prevalence of delirium tremens.<sup>47</sup> It may well be that the frequency of certain acute alcoholic states can be affected through a reduction in access to spirituous liquors. It would seem, however, that the increased cost of spirits induced a compensatory shift to beer, and in the long run, a substantial prevalence of alcoholism was again achieved.

We conclude that there is no "beverage of moderation" or for that matter, a "beverage of excess". Any one of the three types of beverage may be used without a greater or lesser risk of becoming a pathological drinker. Conversely, a dependence on alcohol can be maintained as well on beer or wine as on spirits. Indeed, the beverage of choice of an alcoholic seems to roughly reflect the beverage preference dominant in his socio-cultural milieu, with a distinct tendency towards the cheaper source of alcohol depending upon his financial resources.<sup>15, 43, 44, 49, 61, 72</sup>

With respect to the last point, it is of interest that a detailed analysis of data for the United States showed that the best index of liver cirrhosis mortality was per capita wine consumption.<sup>64</sup> The reason appeared to be that a larger proportion of all wine sold than of spirits and beer was consumed by alcoholics. The most likely explanation for the attraction of wine to these drinkers was its relatively low cost. This interpretation was in accord with the results of a direct study of alcohol buying in Ontario.<sup>37, 40</sup> There too, certain domestic dessert wines were the cheapest source of alcohol (on a cost per ounce of pure alcohol basis) of any beverage.\* The vast majority of consumers of such wines were found to be chronic drunkenness offenders, skid-row alcoholics, and other impoverished pathological drinkers. Thus we were brought back to the relative price of alcohol, regardless of its beverage source, as the significant factor.

#### The Distribution of Consumption

There was a second important question to be settled before the practical implications of the role of cost in alcohol problems were pursued further. This concerned the relation between general drinking and drinking by alcoholics in a given population. To the old-time Temperance worker it would be obvious that there was a close connection between the two. For him *alcohol* was the cause of alcoholism: man was basically weak and subject to temptations which would lead him astray. Accordingly, it was only necessary to avoid drawing his attention to alcohol, preferably to make it totally unavailable to him, and there would be no alcoholism. But with the rise of the disease concept of alcoholism—stimulated not a little by the teachings of Alcoholics Anonymous—a rather different view as to the causes of alcoholism has emerged<sup>23</sup>. Alcohol has become merely the material cause of alcoholism as the motor vehicle is the material cause of traffic accidents. The real or efficient cause lies in the person of the alcoholic; he is somehow unique—different either in his physical or mental make-up—and by virtue of the difference, is driven to use alcohol to excess and be labelled as suffering from a disease. Thus the drinking itself is commonly seen as symptomatic, as a *consequence* rather than a cause of an underlying disease process.†

Now from the standpoint of this conception of alcoholism, it follows that the intake of alcohol of those suffering from the disease will be quite different from that of the non-alcoholic population. As they are allegedly unique in personality or biological characteristics so, it is assumed, will they be unique in their drinking.

\* In Ontario as of May 1973, the cheapest alcohol obtainable through a distilled liquor cost 55 per cent more than the cheapest in wine. The cost of alcohol in beer fell between these two.

† For an enlightening statement of the ramifications of the "disease concept" see: Powell v. Texas, Supreme Court of the United States, No. 405—October Term, 1967.

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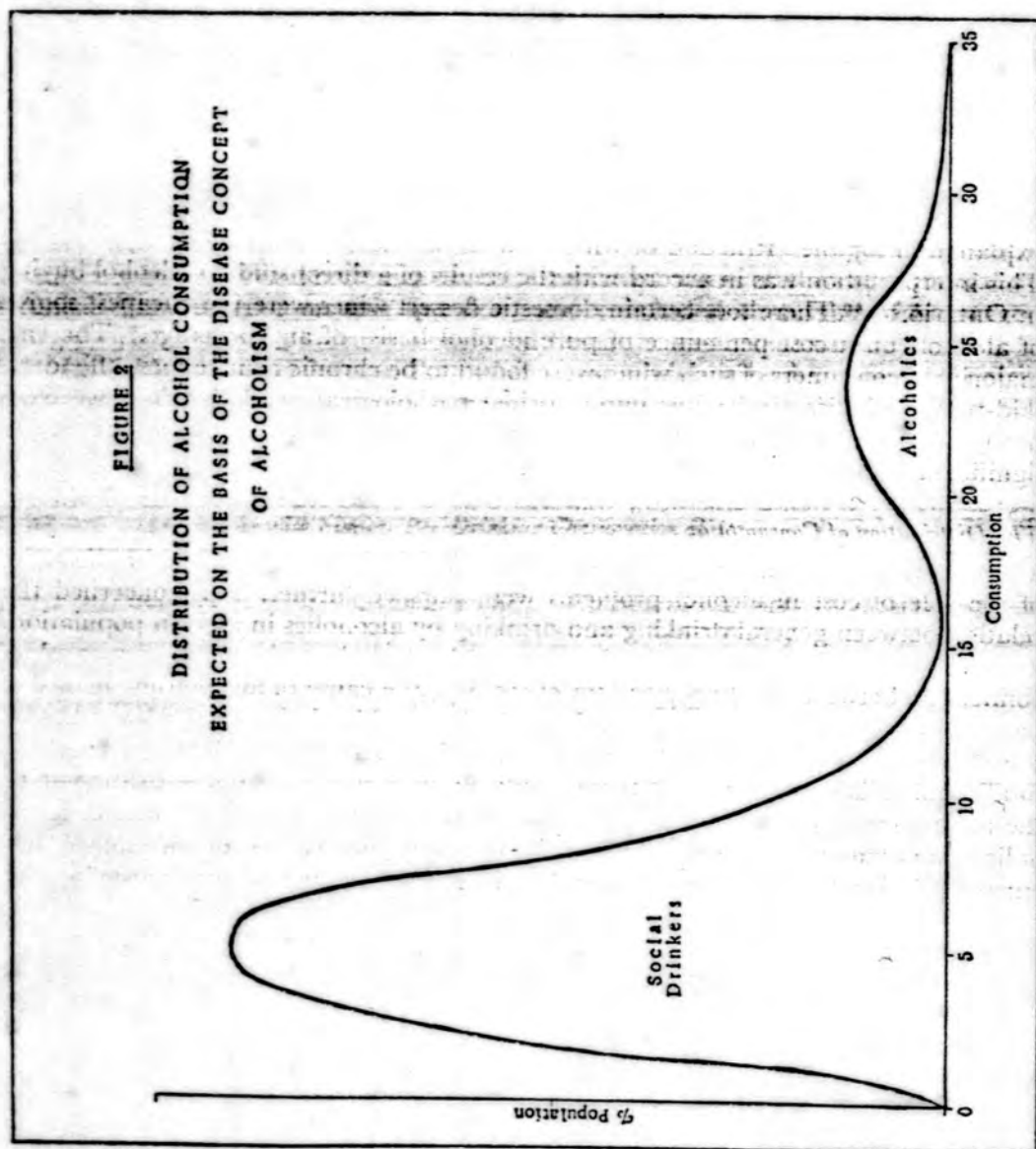
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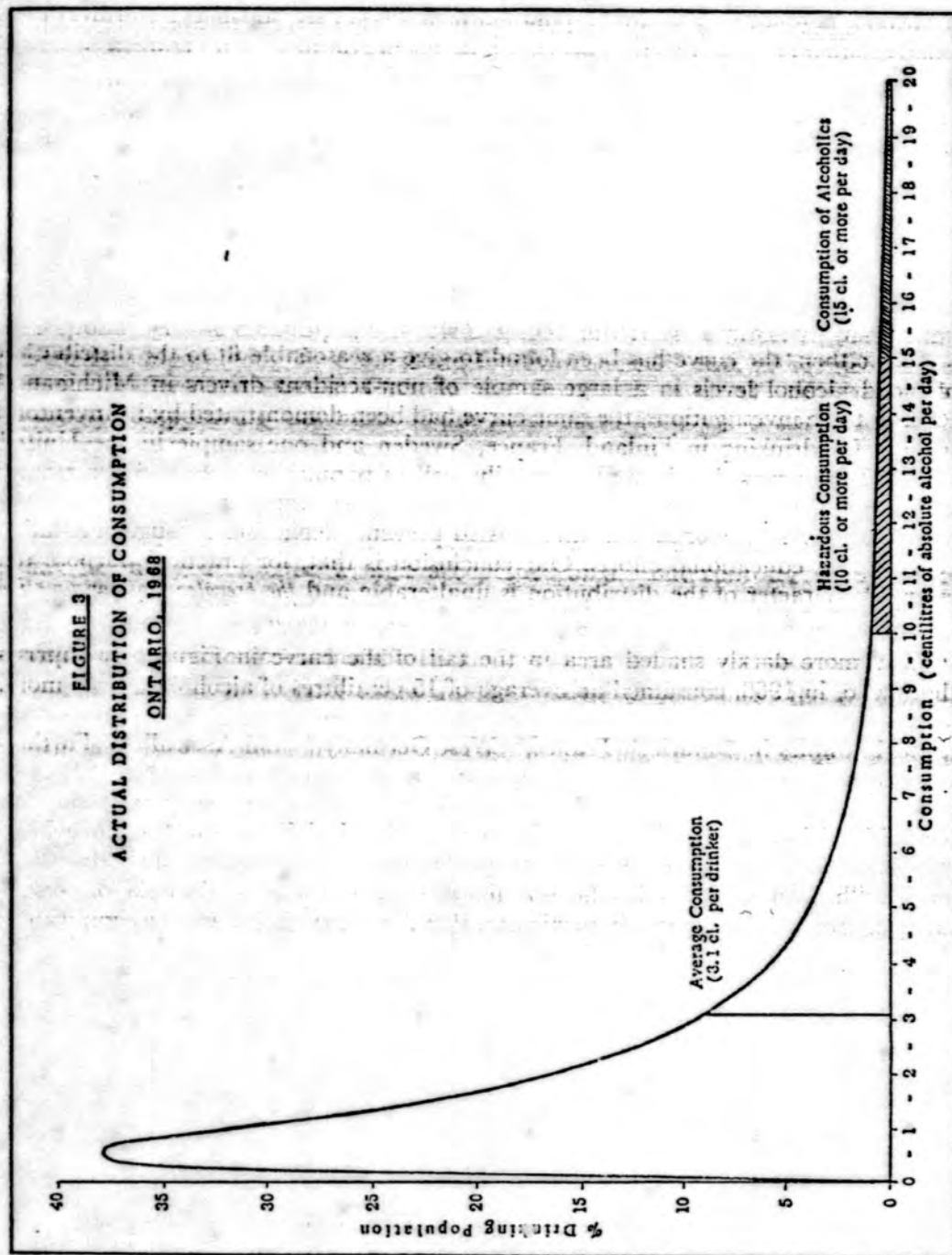
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This conception, common among workers in the field, implies a bimodal distribution of alcohol consumption in the population as a whole; the alcoholics constituting a small group off by themselves. This view is depicted graphically in Figure 2.

If the distribution were in fact bimodal, then it would be difficult to see why control measures designed to reduce overall per capita consumption should necessarily affect the alcoholic, other than to put him to a little more trouble to meet his abnormal craving than before. In other words, one would not expect the prevalence of alcoholism to respond to the same factors as influenced the consumption of other drinkers. However, a prodigious amount of work with the beverage sales slips for five Ontario communities revealed that the distribution in that province at least, was not at all bimodal.<sup>41</sup> The data were fully described by the Ledermann curve (a model of the log normal type), as shown in Figure 3.

Since then, the curve has been found to give a reasonable fit to the distribution of blood alcohol levels in a large sample of non-accident drivers in Michigan.<sup>76</sup> Prior to these investigations, the same curve had been demonstrated by its inventor<sup>32</sup> to hold for drinking in Finland, France, Sweden and one sample in the United States. This means that it applies equally well to populations which differ greatly from one another in attitudes towards drinking, beverage preferences, drinking habits, and most important, in attempts to prevent alcoholism through legislative controls and educational efforts. Our conclusion is that, for practical purpose the essential character of the distribution is unalterable and *the prevalence of consumption by those we label "alcoholic" is inextricably linked to general consumption.*\*

The more darkly shaded area in the tail of the curve in Figure 3 comprises those who, in 1968, consumed an average of 15 centilitres of alcohol daily or more. This level of consumption agrees well with the reported intake of alcoholics in clinical samples in Ontario,<sup>63</sup> France,<sup>51</sup> West Germany,<sup>34</sup> and Australia.<sup>82</sup> Furthermore, the number of such consumers indicated by the distribution—about 125,000—differs little from alcoholism prevalence estimates based on mortality data.<sup>67</sup> A second level has been indicated on the curve at 10 cl. daily (about 9 oz. of whisky or 66 oz. of 5% beer). We have tentatively designated consumption at or above this level as "hazardous". Our justification lies in data on the alcohol intake of persons suffering from liver cirrhosis. In particular, Péquignot's study indicates a significantly elevated risk of the disease at this point.<sup>51</sup>

In view of these findings, it seems to us that the only feasible approach to the reduction of hazardous drinking and alcoholism is to effect a decrease in the level of consumption of the population as a whole. This would mean shifting the distribution to the left which would not change its log normal character. But the result would be a decline in the number of persons in the tail end, i.e., in the number of hazardous consumers and alcoholics. We believe that one factor which can cause such a shift is an increase in relative price.

\* The finding that alcohol consumption is distributed unimodally is consistent with the view that the alcoholic suffers from a non-specific behavioural disorder. The latter in turn, is in accord with the results of recent biological research respecting the nature of physical dependence on alcohol,<sup>26</sup> and with the essentially negative results of the search for an 'alcoholic personality'.<sup>31, 55</sup>

*Discussion and Conclusions*

We do not contend that the relative price of alcohol is the only important variable responsible for differences in alcoholism prevalence. However, it seems to be one of the most powerful, statistically speaking, and the one which, in theory, is most easily manipulated. Certainly, a strong effect on indicators of alcoholism is also exerted by the level of acceptance of drinking in a society, although the two factors are probably not strictly independent. Thus, indices such as proportion of total abstainers, responses to attitude surveys on drinking, and voting behavior on alcohol control issues have been shown to vary with alcoholism rates.<sup>23, 55, 70</sup>

It is probable that some of the international variation shown in our Table 5 is attributable to this factor. For example, The Netherlands appears as a notable exception because consumption is low despite a low relative price. In that country there is comparatively little tolerance for drunkenness<sup>23</sup> and, although there are marked differences between Catholic and Protestant levels of acceptance,<sup>19</sup> the strongly disapproving Calvinists of the rural north keep the consumption of the country as a whole at a low level.

On the other hand, there appear to be no instances of high consumption in the presence of a high relative price.\* Nor is this solely because acceptance and price may be negatively correlated in some degree. Southern Ireland, for example, may be safely designated a high acceptance area.<sup>4</sup> But contrary to a common belief among both the lay public and students in the field, consumption and alcoholism rates are very low.<sup>6</sup> This is in accord with the high price of alcohol relative to the average income level of the Irish.

The example of Ireland raises another matter of relevance: the tendency to confuse problems of acute intoxication (or in Jellinek's terms<sup>23</sup>—"occasional excess") with problems of alcoholism. In the case of Ireland, it would seem that undue emphasis has been placed on the deleterious consequences of the occasional massive intake as evidence of a high frequency of alcoholism.<sup>4</sup> In contrast, both Italy and France are often cited as models of "civilized drinking", i.e., by implication, widespread drinking but few alcohol problems. In fact, both countries have very high rates of alcoholism as reflected in mortality and other statistics,<sup>7, 32</sup> although obvious drunkenness is comparatively rare. Also instructive is the situation in Finland where the alcoholism rate is low, as would be expected from consumption and relative price data.<sup>10</sup> But, as Kuusi pointed out many years ago, whatever is consumed tends to be concentrated in a short period rather than taken in small quantities over several days.<sup>28</sup> The result is a problem of "explosive intoxication" or in other words, violent behavior as a consequence of acute intoxication.<sup>29, 62</sup>

The confusion of these problems may account in part for the persistent interest in differential taxation favoring beverages of low alcohol content. As noted in a previous section, the introduction of a heavy tax on spirituous liquors probably does lead to a reduction in certain problems of severe intoxication. But so far as chronic heavy intake of alcohol is concerned, beer or wine will serve as well. Therefore, in the long run the deterioration to health is apt to be as serious a problem as

\* Presumably, this is very unlikely to occur on a country-wide basis. The issue raised by some critics of price control is rather that it may occur *within* a country, i.e., among the rich.

before. It is the possibility of minimizing the latter with which we are concerned in this paper.\*

In our view, a price system aimed at prevention and in accord with the evidence presented would involve:

(1) A price structure such that the cost of any given quantity of alcohol was the same for the cheapest source of alcohol in each class of beverage: beer, wine and spirits. Prices would then be scaled upward in each class depending upon the producers' values for different brands. Probably the cost of alcohol in the cheapest spirituous liquor would ordinarily be taken as the base figure. If so, implementation in Ontario would mean increasing the current price (May 1973) of the cheapest fortified wines by 55 per cent, and of most beers by about 22 per cent.

(2) Adjustment of prices as often as required to maintain a constant relationship between the cost of beverage alcohol so established and average disposable income.

(3) The ultimate establishment of an optimum relative price level in an effort to minimize the prevalence of hazardous consumption and alcoholism. Liver cirrhosis mortality rates might be employed as one index of achievement in this regard. For Ontario, Seeley concluded that these rates would be at a minimum if the relative price were about three times as high as the level at the time of his analysis.<sup>69</sup> However, his conclusion was reached on purely technical grounds, namely the results of a regression analysis of time trends. The optimum level would have to be determined for each jurisdiction, and in addition to research findings, would need to take account of various practical, ethical and political factors. Some of these are touched upon in the discussion which follows.

We are fully aware that in many jurisdictions, there would be strong resistance to the utilization of this mode of control. Such resistance is apt to be especially stubborn where social acceptance of drinking is high. Among the objections which have been raised to the suggestion in Ontario are three which deserve comment here.

First, it is argued that elevated prices would lead to widespread illicit production which would negate the effect sought. This consequence is probably exaggerated, since even during the later years of Prohibition in North America, and the allegedly ubiquitous bootlegger and speakeasy, liver cirrhosis death rates were lower than before or since.<sup>25, 53</sup> If enforcement is reasonably vigorous, it can be anticipated that the relative price of illicit alcohol will be high, to compensate for the risks involved in its production and distribution. Accordingly, a practical consideration in the establishment of an optimum relative price level would be to find a point high enough to hold down consumption but low enough to avoid a substantial illicit trade.

In any case, the objection rests in part on a misunderstanding of what is being suggested in the way of price manipulation. It is not proposed that legal alcohol be rendered virtually inaccessible through cost. This, like Prohibition, would ignore the many benefits—social and psychological—which undoubtedly accrue to the

\* It is clear that the two types of problem overlap to a considerable degree. For example, it was estimated that in Ontario, at least 28% of alcohol-impaired drivers in traffic accidents were alcoholics in the clinical sense of the term.<sup>65</sup> And in any case, alcoholism in most countries characteristically involves a history of drunkenness with attendant personal and social problems. Accordingly, it is all but inconceivable that a measure which reduced the prevalence of alcoholism would fail to reduce problems of intoxication.

moderate use of alcohol. We believe that personal adaptations to higher price levels could be made without serious sacrifice of such benefits. For example, the regular tavern patron might simply reduce his drinking speed, and the "cocktail hour" might involve one-ounce instead of two-ounce drinks. The main point is that an ethical question is involved: How much harm are we willing to tolerate in return for how much benefit?\* In our judgment, substantial improvements in the health status of many jurisdictions could be achieved through suitable price increases and without undue loss of the rewards associated with drinking.

A second objection is that price control will not affect the alcoholic; he will simply turn to illicit sources, non-beverage alcohols, or crime to raise the price for a legal supply. In part, this objection is simply contradicted by a wealth of evidence. Liver cirrhosis mortality has been shown to be a good index of the number of alcoholics in a population (whether or not they happen to suffer from the disease); and the frequency of this cause of death is in fact highly sensitive to the effect of relative price on general consumption. Nevertheless, these findings do raise a question respecting the current conception of the alcoholic, and it is this which underlies the objection.

We do not doubt that most of those persons now labelled 'alcoholic' are clinically ill—by virtue of the consequences of long-term heavy consumption, and sometimes also because of pre-existing physical, mental or social problems. However, we are not aware of any compelling evidence that there is a unique predisposing factor or an irreversible change due to chronic intake, which renders the individual permanently incapable of controlling his alcohol consumption. Indeed the notion of permanent loss of control has been challenged on clinical grounds,<sup>14, 50</sup> and there is now experimental evidence that physical dependence on alcohol is reversible.<sup>20, 26, 31</sup> In any event, the principal aim of a preventive measure is to affect the incidence (new cases) rather than the prevalence of a condition. Since the death rate of alcoholics (from all causes) is more than double that of the general population,<sup>66, 68</sup> natural attrition alone would rapidly diminish prevalence if the inflow of new cases could be prevented. It is here that relative price control might be expected to have its most significant effect.

The third objection again takes us out of the realm of science and into those of ethics and political philosophy. It is that an increase in relative price would penalize the poor man and leave the rich man unaffected. One can but agree that an increase would hurt the poor man more, as presumably do all forms of taxation. However, a benefit would not necessarily be conferred on the rich. In the United Kingdom, where relative price is high, liver cirrhosis seems to have become largely a rich man's disease.<sup>59</sup> We would also question the assumption that the rich man is unaffected by price increases. This will depend on his attitude towards money, and on just how rich he is. In Canada at least, the number who theoretically might be quite unaffected (on financial grounds) by a substantial price increase comprises a very small fraction of the population.

It seems to us that this objection also raises an ethical question: should legislation ever be employed to protect public health? If so, then it is simply a matter of how

\* For a detailed discussion of this issue with reference to the control of alcohol and drug use, see the recent book by H. and O. J. Kalant.<sup>27</sup>

many will be helped and not of class discrimination. We suspect that objections such as this would seldom be heard if relative price control were seen as a valid health measure. At present it is not likely to be viewed in this light in most North American areas, and consequently, will not be politically feasible to implement.

Our general conclusion is that in the manipulation of the relative price of alcohol, governments theoretically have at their disposal a powerful instrument to control the prevalence of hazardous drinking and alcoholism. However, at the present time there are apt to be formidable political and emotional obstacles to the use of this instrument. The most practical approach to their removal would appear to be a vigorous educational program designed to generate public recognition of the hazards of heavy consumption, and the preventive value of this mode of control. Price increases would have to be seen as having a protective function and not as just another device of government to increase its revenue.

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Three points are agreed upon by students of law & drinking behavior "1) highly restrictive controls on accessibility lead to lower consumption and fewer alcohol problems; 2) such controls are unlikely to be implemented in the absence of substantial public support and 3) such controls are apt to involve costs which will eventually be perceived to outweigh their benefits."

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It is also increasingly recognized that the corollary of these conclusions is true: "liberalizing the system leads to an increase in consumption, and an increase in consumption leads to complications."

THE EFFECTIVENESS OF LEGAL MEASURES IN THE PREVENTION OF ALCOHOL PROBLEMS

by

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and

Wolfgang Schmidt

Alcoholism-Drug Addiction Research Foundation  
Toronto, Canada

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THE EFFECTIVENESS OF LEGAL MEASURES IN THE  
PREVENTION OF ALCOHOL PROBLEMS\*

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INTRODUCTION

The purpose of this review is to assess the evidence bearing on the effectiveness of legal measures believed to have some primary preventive value with respect to the incidence of alcohol problems. Not considered are laws concerned solely with such special segments of the drinking population as incorrigible alcoholics, public inebriates and impaired drivers. The focus is on legislation and derivative measures aimed at the whole population of consumers (or potential consumers) of alcohol, and intended to prevent the occurrence of alcohol problems through regulation of the amount or character of alcohol consumption.

There is a vast literature on the topic. In addition to the assessments of historians, physicians, clergymen, jurists, journalists and others, there are many official government reports. For example, in England there have been enquiries roughly once every 20 years since the Select Committee published its findings in 1834. In Canada and the U. S. A. there are reports of federally instigated enquiries, and of countless provincial or state bodies concerned with the merits and demerits of the control systems in their jurisdictions. While some of this literature contains data worthy of further analysis, most of it contributes little of value to the present concern. Typically, the conclusions are based on the personal tastes or beliefs of the authors, on ex cathedra arguments, or on the weight of

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\* From the Addiction Research Foundation, 33 Russell Street, Toronto, Canada. Prepared for discussion by the Working Group on Alcohol Control Policies and Public Health at the final meeting of the Group in Toronto. August 1975.

opinion of persons with little or no direct knowledge of the matters at issue. In short, scientifically acceptable attempts to evaluate the effects of particular control measures are rare.

There are probably many reasons for a dearth of scientific studies, perhaps not least among them, the formidable methodological difficulties involved (Room 1971). However, a factor of particular importance has been the rise of the 'disease concept' of alcoholism. The view that normal drinkers and alcoholics comprise two quite separate groups within the population - which this notion has meant to many workers - has rendered meaningless or at least of low priority the consideration of measures intended to affect the prevalence of alcoholism through the general regulation of alcohol consumption. The drinking of the alcoholic is seen to be independent of other drinking: a symptom of pathological factors peculiar to him, and therefore, not amenable to change by measures which would affect the normal drinker.

In recent years, evidence has been accumulating which casts serious doubt on the validity of so narrow a concept of alcoholism. Moreover, it has been shown that the overall level of consumption in a population may well play a crucial role in the prevalence of hazardous drinking (Popham et al. 1975a). As a consequence, the possible preventive value of legal measures has again become an important issue, and the current status of knowledge respecting their effectiveness, worthy of review.

#### CONTROL OF OUTLET FREQUENCY

Perhaps no single control measure has been more frequently and widely employed over the centuries than the regulation of the number of places in which alcoholic

beverages may be purchased (King 1947; Krout 1925; Shadwell 1915). Outlets for on-premise consumption have been particular targets, and the immediate aim most commonly has been to reduce their frequency. While from time to time those who influenced the legislators had objectives in mind other than the prevention of inebriety (Lee 1944; Lemert 1962; Odegard 1928; Popham 1962), the latter has been typically the stated justification.

In an attempt to evaluate the probable consequences of alterations in outlet frequency, Popham et al. (1975a) studied the covariation of outlet rates and various indices of the prevalence of alcohol problems. These investigators reported that, among the provinces and certain larger cities in Canada, higher rates of arrest or conviction for drunkenness seemed to occur where there were fewest public drinking places per unit of population. Trends through time in Ontario also suggested something of an inverse relationship (Popham 1962). A possible explanation is that where or when there are fewer taverns - particularly of those catering to drinkers of the lower social strata - there will be fewer places to become drunk unobserved by the police, and a greater likelihood of heavy drinking in public areas (Ahlström-Laakso 1971). An apparently negative association between drunkenness charges and outlet rates was also reported for the United Kingdom (Mass Observation 1943). However, Popham et al. (1975a) ran a linear correlation analysis on two other U. K. series: figures for 84 county boroughs and for 52 counties excluding boroughs. The coefficients of correlation, although negative, were very small and not significantly different from zero.

Equally extensive legal statistics on drunkenness have not been studied for the U. S. A. However, coefficients of correlation between tavern rates and per capita

alcohol sales, and tavern rates and alcoholism prevalence estimates (in effect, liver cirrhosis death rates) for 49 states proved readily attributable to chance (Ibid 1975a). With respect to other types of outlet in the U. S. A. , Entine (1963) concluded that limiting the number of package stores did not reduce off-premise consumption. On the other hand, Simon (1966a) found per capita sales to be related positively to the frequency of such stores, but felt on further analysis that this variable was more likely to be dependent on sales than the reverse.

It would seem clear that in the populations examined, variations in indicators of the prevalence of alcohol problems were not dependent on outlet frequency. It is important to emphasize, however, that the variations considered ranged from situations where outlets were ubiquitous to those where some customers may have been mildly inconvenienced.

Rather different results emerge when the effects of control measures which create or alter situations of extremely low accessibility are considered. The classic instance on one side of the question is Prohibition when, in several countries, the frequency of legal outlets was reduced virtually to zero. There can be little doubt that during the first few years of Prohibition in Canada (Popham 1956), Finland (Bruun et al. 1960), and the U. S. A. (Jolliffe and Jellinek 1941; Warburton 1932) all indicators of alcohol consumption and alcohol problems reached the lowest level yet achieved in any period for which there are relevant data. It is also clear that in later years - say roughly 1923-1933 in the U. S. A. - as an illegal trade became well established and the speakeasy and other clandestine outlets made their appearance - consumption increased substantially (Warburton 1932).

At the opposite extreme is the effect of a change in control policy which renders

alcoholic beverages readily accessible to a population previously isolated from a legal supply. The outcome of Kuusi's experimental introduction of outlets to 'dry' areas in rural Finland, or of Amundsen's study of a similar change in Norway suggests that, under these circumstances, there is an appreciable effect on consumption (Amundsen 1965; Kuusi 1957). However, the increase observed in the Finnish experiment was apparently offset in part by a decline in the consumption of illicit alcohol.

Mäkelä (1971a) has reported a more dramatic effect in Finland following a very considerable and rapid rise in number of outlets, many of which were established in previously 'dry' areas. In 1969 medium strength beer was released for unrestricted retail distribution, and shortly thereafter, apparent alcohol consumption in the country increased by 48%. Beer accounted for most of the increase. Although effects on other indicators of the prevalence of alcohol problems have not been reported as yet, Mäkelä (1971b) showed that the increase tended to be spread over the drinking population in a manner which inevitably brought about an increase in the proportion of heavy consumers.

#### REGULATION OF TYPE OF OUTLET

This area of control, which has been a subject of much debate and legislative action over the years, concerns such matters as the physical arrangements, mode of sale, class of beverage, and amenities which should be allowed in outlets for on- or off-premise consumption. Generally, the objective of control has been either to minimize the attractions of alcoholic beverage outlets, or to produce exactly the opposite effect: in both cases apparently in the belief that excessive consumption would be discouraged (Popham et al. 1975b).

An example of legislation intended to increase the attractiveness of on-premise outlets is found in Ontario when, in 1947, the sale of wine and distilled spirits by the glass, dancing, professional entertainment and other innovations were permitted. Previously, public drinking places had been confined to the sale of beer and very few recreational facilities were allowed. Popham et al. (1975a) analyzed trends in alcohol statistics for eight-year periods before and after these changes. By way of control data, the trends were compared with those in an adjacent province, where no significant changes in policy had occurred. It was found that, with the exception of liver cirrhosis mortality rates, the percentage increases were much greater in both provinces before than after 1947. From 1947 to 1954, alcohol sales increased slightly more in Ontario than in the control province, but drunkenness conviction and liver cirrhosis death rates showed greater increases in the latter.

Bryant (1954) examined the consequences of a similar change in the State of Washington, but could find no evidence to attribute increases in consumption or alcohol-related offences to the change in control policy. And in Saskatchewan, Dewar and Sommer (1962) were also unable to discern significant effects in a before-and-after study of a small community in which a "beer parlor" for men only was replaced by a beer and wine tavern catering to both sexes.

To date, the only study of the effect of differences in type of package outlet appears to be that of Smart (1974a) who compared self-service and clerk-service stores in Toronto. In the former, all beverages offered for sale were displayed; in the latter, a selection had to be made from a list and the choice obtained through a clerk. The self-service type had more customers, and they were observed to

buy more than the customers of the clerk-service store. When interviewed, the clientele of the former more often reported unplanned purchases or "impulse buying", and those who did so, also reported a higher average consumption of alcohol during the preceding week.

It would appear from the few studies available that limited diversification of on-premise outlets may have little or no effect on trends in consumption or alcohol problems. On the other hand, if the results of a single study in one locality can be considered indicative, the application of "supermarket techniques" to the package retailing of alcoholic beverages may lead to greater consumption.

#### CONTROL OF HOURS OF SALE

The opening hours of alcoholic beverage outlets - especially those for on-premise consumption - have been almost as common a target of regulatory measure through the ages as their frequency (King 1947; Shadwell 1915). In the past, the legislation has commonly provided for a reduction in hours of sale with the stated intent of combatting the problems of insobriety. Shadwell (1923) considered this to have been a more effective approach in the United Kingdom than reductions in outlet frequency. However, despite long-standing beliefs in the efficacy of the measure, there have been exceedingly few attempts to put the matter to test.

Popham (1962) found an apparent correlation between the opening hours of on-premise outlets in Toronto and the hourly pattern of arrests for drunkenness exhibited between 8.00 a.m. Monday and 8.00 a.m. the following Sunday. However, when arrests were plotted for the period 8.00 a.m. Sunday to 8.00 a.m. Monday morning - during which time all beverage outlets were closed - an almost identical pattern emerged. This might be taken to indicate that the hours of sale reflected

the drinking pattern of at least one segment of the community rather than the reverse. On the other hand, the opening hours which prevailed at the time of the study had been in force for many years, and originally may have shaped the characteristic circadian pattern observed.

The results of a study in Victoria, Australia would suggest the latter to be the more probable relationship. There, Raymond (1969) examined the effects on motor vehicle accidents of an extension in the closing time of on-premise outlets from 6.00 to 10.00 p.m. She found no change in the overall total of personal injury accidents, but there was a marked change in the hourly pattern. After the extension of closing time, the previous accident peak between 6.00 and 7.00 p.m. altogether disappeared, and was replaced by a new peak between 10.00 and 11.00 p.m. From the results of this study, one would conclude that changes in closing hours can have a significant effect on pattern of consumption. But the total consumption or, at least, the frequency with which patrons consume impairing amounts may remain unaffected.

#### LIMITATIONS OF DRINKING AGE

Most jurisdictions have sought through legislation to limit or prevent the use of alcohol by persons below a specified age. As in the case of other restrictions discussed, there are divergent opinions respecting the desirability and effects of age limits, and very little objective data upon which to base a rational judgment. Some consider that the law should seek to postpone the introduction to alcohol as long as possible. Others feel that age limits (especially when high) encourage clandestine drinking by the young, and reduce the likelihood that healthy attitudes towards alcohol use will be learned (Wilkinson 1970).

By way of a preliminary examination of the effects of a change in age limit, Schmidt and Kornaczewski (1975) studied trends in alcohol sales and motor vehicle accidents before and after a reduction in the minimum age in Ontario from 21 to 18 years. It was found that the reduction in age limit was followed by a substantial rise in the consumption level of the 18 to 20 age group. There was also a distinct increase in the involvement of the age group in alcohol-related motor vehicle accidents; nor could this be attributed to an alteration in enforcement practice. A similar consequence of a reduction in legal drinking age has been reported for several states in the U. S. A. (Douglass et al. 1974).

It would be important to extend the period so far covered by these studies to determine whether or not the new levels of consumption and accident involvement persist. But in any case, the findings cast doubt on the contention that age limits do not exercise a restraining influence, or that their reduction may lead to a decline in alcohol problems.

#### PRICE CONTROL

Measures affecting the price of alcoholic beverages have been among the earliest forms of control imposed by law. However, the original objectives were to prevent over-charging rather than over-drinking, and most particularly, to secure revenue for government (Catlin 1931; Krout 1925). It was not until the rise of substantial Temperance agitation, especially during the early years of the present century, that heavy taxation was often justified as an effective way to combat insobriety and protect the health, morals and stability of society (Shadwell 1923).

Today there are probably no jurisdictions, where alcoholic beverages are legally sold, which do not impose some tax upon them. This has continued to be seen as

a lucrative source of revenue for the state. But taxation is now rarely justified as a protective measure, and indeed, in many jurisdictions tax increases have lagged behind income levels so that, in effect, the economic accessibility of beverage alcohol has been steadily increased (Popham et al. 1975a).

Recently, Lau (1975) reviewed the evidence of an association between the price of beverage alcohol and apparent consumption. He found that, despite some methodological differences and shortcomings, econometric studies for a variety of countries have consistently shown price to be a significant predictor of the demand for alcohol. With respect to the association between price and the prevalence of alcohol problems, the evidence is also persuasive. In the first place, such an association would be expected as a logical extension of the established co-variation of liver cirrhosis death rates and per capita alcohol sales (Popham 1970). Secondly, confirming evidence has been obtained through direct studies of the interrelations of the three variables. Thus, Seeley (1960) analyzed temporal data for Ontario and found a strong inverse relationship between a measure of price and both per capita alcohol sales and liver cirrhosis death rates. With few exceptions, a similar relationship was found by Popham et al. (1975a) in an extension of Seeley's analysis to regional and temporal data for several North American and European jurisdictions.

This is not to say that economic accessibility fully accounts for the observed variation in indices of consumption and alcohol problems. It seems to be a powerful determinant, statistically speaking, and one with clear implications for the development of effective preventive measures. However, the level of acceptance of drinking also appears to exert a strong effect on the indicators mentioned (Jellinek 1960; Seeley 1962). It is probable that the two factors are to some extent interdependent:

where there is a high level of acceptance, there is apt to be a high degree of economic accessibility, and conversely low accessibility may be associated with low acceptance. On the other hand, this is certainly not always the case. For example, the Republic of Ireland is clearly a high acceptance area (Bales 1946). Nevertheless, the apparent consumption level and the prevalence of alcohol problems are estimated to be relatively low (Blaney 1967; Lynn and Hampson 1970). This is in accord with the high price of beverage alcohol relative to the average income level of the Irish (Walsh and Walsh 1970).

Finally, there is the important question as to whether or not the inference of a cause-effect relationship from correlational data is justified. This is often likely to present a difficulty in the type of epidemiological study which has been reviewed. Definitive experiments will seldom be possible for practical, political and ethical reasons. However, if the associations are consistently encountered in both regional and temporal series for different populations, if the range of variation in the indices is substantial, if trends through time have been in both directions, and if the character of the relationship is in accord with expectation based on established knowledge, then the circumstantial case is a very strong one. This would seem to apply reasonably well to the evidence of economic accessibility as a determinant of rates of alcohol consumption and alcohol problems.

#### DIFFERENTIAL TAXATION

Traditional beliefs that alcoholic beverages differ in their effects on behaviour - by implication for reasons other than the amount of alcohol involved - are widely encountered, with variations in detail from one culture to another. Probably the most influential, with respect to control measures, has been the belief that beer is

a drink of moderation and that the problems of alcohol can be attributed mainly to the use of distilled spirits. This has been the explicit justification in many jurisdictions for the imposition of substantially higher taxes on distilled beverages than on any other class (Jellinek 1963).

Currently, the arguments most frequently used in support of a tax differential favoring beer relate to acute effects potentially relevant to accident causation, and rest on the early work of Goldberg and his associates. Their experiments demonstrated that a higher peak blood alcohol level, and correspondingly greater psychophysical impairment were achieved after the ingestion of distilled spirits than after ingestion of the same quantity of alcohol in beer (Isaksson, 1957). However, Kalant et al. (1975) showed that, under more realistic experimental conditions which included progressive drinking, these inter-beverage differences altogether disappeared. In any event, no direct evidence has been obtained as yet to implicate one beverage over another in accidental injury or death.

Takala et al. (1957), in an experiment conducted in Finland, found that subjects were more prone to violence when the same blood alcohol level was reached through drinking spirits than when reached through beer. Since in Finnish culture there is a well-known pattern of explosive intoxication associated with the concentrated consumption of spirits (Kuusi 1948; Sariola 1956), their results may have been a function of a difference anticipated by their subjects. If so, this would not make the difference any less real, but it would tend to shift the etiological focus from pharmacological action to variables in culture and personality.

Turning to the evidence of chronic ill-effects, cross-national epidemiological studies have failed to find convincing evidence to indict any one class of beverage

over another (de Lint and Bronetto 1966; de Lint and Schmidt 1971; Popham et al. 1975a). Morbidity and mortality studies have indicated that the class of alcoholic beverage consumed is probably of little significance in the typical illnesses and higher rates of death of heavy drinkers (Lelbach 1974; Schmidt and Popham 1975). As to clinical alcoholism, examination of the literature reveals that beer has been implicated frequently (Ledermann 1964; Lelbach 1967; Skala 1967; Wilkinson et al. 1969). Indeed, the beverage preferences of alcoholics seem to reflect simply the preferences characteristic of the population in which they live, with a distinct tendency towards the cheaper sources of alcohol (Devrient and Lolli 1962; Lolli et al. 1958, 1960; Parreiras et al. 1956; Sadoun and Lolli 1962; Terry et al. 1957).

If a sound rationale for differential taxation does not reside in a differential liability of the various beverages to generate alcohol problems, it may yet exist in quite another direction. In at least two countries - Canada and the Republic of Ireland - the demand for beer has been shown to be largely price inelastic (Lau 1973; Walsh and Walsh 1970). This means that if there were a substantial increase in the price of beer, the previous consumption level would likely be maintained, presumably at the expense of something else. Walsh and Walsh (1970) pointed out that a consequence for low income families might be neglect of nutritional or other necessities. The possibility of such an effect would have to be weighed against the likelihood that differential taxation will ultimately result in the substitution of beer for the more costly sources of alcohol, and thereby negate the preventive effect sought.

In this regard, the experience of Denmark is of special interest. An extreme)

high tax in 1918, levied only on distilled beverages, led to a very sharp decline in the consumption of these beverages, and a parallel drop in indicators of alcohol problems (Nielson and Strömbergren 1969). However, the decline in use of distilled spirits was eventually replaced by a rise in the consumption of beer. In recent years, overall alcohol sales per capita have been the highest in Scandinavia and the prevalence of alcohol problems - at least as reflected in the liver cirrhosis mortality rate - is again substantial (Popham et al. 1975a).

In summary, there is little evidence to justify differential taxation on the grounds that beer is a comparatively harmless beverage of moderation while distilled liquor is a comparatively harmful beverage of excess. Pragmatically, however, it would seem that the imposition of a high tax on distilled spirits can lead to a decline in alcohol problems. But the effect may be temporary with eventual substitution of less expensive beverages. Uniform price control, on the other hand, might be expected to prevent substitution, but may have undesirable consequences, especially for low income families, owing to the demand inelasticity of one or another beverage.

#### THE MONOPOLY SYSTEM OF CONTROL

It has been widely believed that when the alcoholic beverage trade is in the hands of private enterprise, competition inevitably leads to practices which stimulate greater consumption and, consequently, a higher prevalence of alcohol problems. Proponents of this view have, therefore, favored a system whereby the state or its official agency maintains a monopoly of the whole or a significant part of the trade.

Following the repeal of Prohibition in North American jurisdictions, all provinces of Canada and about a third of the states of the United States adopted a government

monopoly system. In the remaining states, the alcoholic beverage trade was given over to private enterprise with control exercised through licensing. Jellinek (1947) analyzed trends within the states under each system for the period 1930 to 1945. He could find no evidence of an effect on "rate of inebriety", and with respect to trends in apparent consumption, noted that "the monopoly system did not prevent fairly large increases; nor did the license system lack small increases" (p. 16). Popham et al. (1975a) examined differences between the two groups of states for the year 1964. Higher mean rates of liver cirrhosis mortality, total alcohol sales and sales by type of beverage were exhibited by the license group, although only the difference for wine sales was statistically significant. Recently, Andreano and Li (1974) conducted a similar comparison but employed the male cirrhosis death rate, which may be a more sensitive index of differences in the prevalence of heavy drinking. They found the mean rate to be significantly higher in the license states. However, neither of these studies controlled for income level which, on the average, is higher in license than in monopoly states (Simon 1966b), and known to be an important determinant of the demand for alcoholic beverages.

It must be emphasized that to contrast monopoly and license states in the U. S. A. is not to compare 'control' with 'no control', nor even to compare areas where competition for private profit is largely absent with those where it is rampant. Among both license and monopoly states there are important differences in the extent to which emphasis is placed on the revenue-producing rather than the problem-controlling function of the system (Barker 1957; Landis 1948; McCarthy and Douglass 1959; Simon 1966b). Therefore, a better test of the effectiveness of the latter would be to disregard the official classification and base the comparison on relevant differences

in operation independently validated.

Certainly in the past there have been monopoly systems which clearly had the control of alcohol problems as a primary objective (Popham et al. 1975b; Smart 1974b). In some instances, these have involved attempts to monitor individual use, prevent consumption beyond a specified level, and exclude identified problem drinkers from purchasing. The effectiveness of such systems has rarely been studied, and never with conclusive results, so far as the present writers are aware. The Bratt system in Sweden is a case in point (Elmer 1957). It was abolished in 1955 and replaced by a far less restrictive form of monopoly control. According to Boalt and von Euler (1959), the change was followed by a rapid initial increase in alcohol sales, drunkenness arrests and impaired driving. But by 1958, apparent consumption had dropped below the 1954 level. However, since substantial tax increases had been imposed by that time - which could have been responsible for the decline - no conclusion could be drawn from the post 1955 trends as to the relative effectiveness of the two systems of control.

It may be, as Christie (1965) has suggested, that when a state monopoly is rather comprehensive, and a primary objective is prevention, alcohol problems are less prevalent than they otherwise would be. But then the question becomes whether or not the particular measures which prove effective could not be applied equally well under a licensing system. Presumably under a monopoly, both the number and potential political influence of those with a vested economic interest in higher levels of alcohol consumption is less. It would also seem that the implementation and enforcement of various types of control measure, and the monitoring of their effects are facilitated by a centralized system. However, the overriding consideration is prob-

ably the emphasis which the controlling authority places on the preventive aspect. When the control of alcohol problems has become secondary to marketing and distribution objectives, a state monopoly system may function, in effect, as a particularly powerful ally of the alcoholic beverage industry.

### EPILOGUE

There would appear to be agreement among students of law and drinking behaviour on at least three points: (1) highly restrictive controls on accessibility lead to lower consumption and fewer alcohol problems; (2) such controls are unlikely to be implemented in the absence of substantial public support; and (3) such controls are apt to involve costs which eventually will be perceived to outweigh their benefits (Bruun 1970; Christie 1965; Lemert 1962; Mäkelä 1972; Room 1971; Shadwell 1923).

It is also increasingly recognized that the corollary of these conclusions is true: "liberalizing the system leads to an increase in consumption, and an increase in consumption adds to the complications" (Mäkelä 1972 p.21). Indeed, minimum control may well carry as high costs as very severe restriction. For example in France, where there have been few legal restraints on drinking, and the highest known consumption level of any country has prevailed, it has been estimated that over 40% of the total health bill is attributable to the treatment of alcohol-related diseases, and about 50% of all hospital beds are occupied by patients suffering from these conditions (Brésard 1969). It is significant that France seems to have been the only Western country in recent years to introduce new and far-reaching restrictive measures in an effort to reduce consumption (Fleck 1970). The trend elsewhere

has been in the opposite direction.

Doubtless many factors are responsible for the widespread relaxation in alcohol control policies during the post World War II period. However, three are evidently of particular importance. One of these, mentioned at the outset of the review, is the rise of the 'disease concept' of alcoholism. This has led many to the belief that whatever may influence the demand of most people for alcohol will be irrelevant to the demand of the alcoholic. A second factor has been the unrealistic expectation in the past of the ability of the law to solve alcohol problems. Thus, the 'failure' (i. e., adverse consequences) of Prohibition and other highly restrictive legislation is still often cited to buttress arguments against legal measures with far more modest aims. But perhaps the most powerful influence on the trend has been the rise of increasingly permissive attitudes towards individual rights and the control of behaviour. This has led to the denigration a priori of legal restraint, and a search instead for means of prevention consistent with the thrust towards self-determination in areas of social concern.

An outcome, especially in North America, has been the adoption by many of a model of prevention which envisions rather fundamental changes in attitudes and behaviour respecting alcohol use. These changes are to be achieved mainly through education and parental example. Legal measures tend to be seen as impediments to the development of healthy drinking habits. It is felt by at least some proponents of the model that rendering alcohol readily available to everyone from an early age, and allowing its introduction into all areas of everyday life, will reduce the mysticism associated with it. Alcohol will then come to be regarded as no more remarkable than any other consumer product, and therefore, will be used moderately.

It is difficult to reject, in principle, a goal which is not a little reminiscent of the view that everyone should be taught a healthier life style in order to reduce or eliminate many chronic ailments. No doubt utopic ends are worthy of pursuit, but it is questionable whether this is a sound justification in the interim to promote changes quite probably detrimental to public health, or to oppose measures of potential benefit. In this regard, we cannot do better than conclude with Edwards' (1971, p. 424) succinct statement on the matter: "Since we are not able to manipulate personality and produce a race with no neurosis, the only realistic method of exerting a benign influence on the prevalence of alcohol addiction is by control of the environmental conditions of drinking, and it is the availability element that remains the prime candidate for control."

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Why regulate: "alcohol intoxication frequently leads to socially undesirable behavior."

PS 4  
Economic studies have consistently shown that alcoholic beverages tend to behave on the market like many<sup>317</sup> other commodities. Thus, as prices have fallen the consumption of alcoholic beverages generally increased, and in the few instances where prices increased sharply the demand decreased."

CONTROL LAWS AND PRICE  
MANIPULATION AS PREVENTIVE  
STRATEGIES

by

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Paper presented at the Expert Conference on the Prevention  
of Alcohol Problems, Berkeley, California, Dec. 9-11, 1974.

## CONTROL LAWS AND PRICE MANIPULATION AS PREVENTIVE STRATEGIES

J. de Lint and W. Schmidt\*

Our task this morning - to discuss control laws and price manipulation as preventive strategies - would have been eased somewhat if, in the past, many of these measures had clearly been intended to reduce or prevent the incidence of some specific alcohol problem, be it drunkenness, chronic excess, physical dependence on alcohol, or ill health and other forms of damage usually attributable to occasional or chronic excess, and if, subsequently, the efficacy of these measures with regard to these objectives had been carefully investigated. Unfortunately - with a few exceptions - neither is the case (1).

We are also well aware of the fact that the issue of government control in the area of alcohol use is politically highly sensitive. Not only is the production and distribution of alcoholic beverages of considerable economic importance in many countries, also beverage alcohol is a very versatile and popular food consumed at quite different occasions (Table I). Changes in government controls would therefore affect a large number of consumers, as well as a significant sector of the

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\* Alcoholism and Drug Addiction Research Foundation, Toronto, Canada.

economy. Thus, added to the relative scarcity of good data, we must take into account that questions concerning control laws are much in the public domain and tend to arouse strong feelings. It is not sufficient to merely assess the available evidence related to the effect of a specific measure on the incidence of an alcohol problem, we must also be prepared to consider public reactions to policy recommendations derived from such research.

Before commenting on the evidence and the preventive strategies implied, we might first ask the question why so many control laws überhaupt exist in the alcohol field. In view of the sensitivity of this issue, why is it that we do not rather find a laissez-faire attitude on the side of government? Probably one of the most important reasons for the enactment of control laws is that alcohol intoxication frequently leads to socially undesirable behavior. Other reasons include to secure revenue for the state, to prevent fraudulent or harmful practices on the part of the producer and distributor, to protect public health, and to restrain political activity that might occur among groups of men drinking in taverns. But, in our view, the overriding concern reflected in control policies of recent date has been social welfare, that is, the minimizing of socially undesirable behavior.

Elsewhere we assessed in detail much of the evidence related to the efficacy of alcohol control laws and taxation policies (2). We have concluded that some of these control measures are indeed highly relevant to the prevention of alcohol problems. Of course, in the general area of population research it will rarely be

possible to produce findings that can establish a case beyond dispute. Those who oppose certain alcohol control laws and taxation policies will undoubtedly exploit some of the methodological difficulties inherent in research of this sort (3). In this context it should be noted that our policy recommendations were formulated in terms of high probability rather than of certainty of effects.

#### Control laws and taxation policies

In the case of control laws the overall impression one gains from the literature is that minor variations in the density, location and type of outlet, in the hours and days of sale or in many of the other regulations governing the context in which drinking takes place (e.g., the decor, seating arrangement, entertainment offered) have no measurable effect on the incidence of occasional excess and other alcohol problems. On the other hand, some of the more dramatic changes in control laws that have occurred apparently did affect the incidence of alcohol problems. For example, the sudden expansion in the number of on- and off-premise outlets after Prohibition in the U.S.A., the opening of stores in isolated dry areas in Finland and Norway, the rapid rise in number of outlets in Finland in recent years following the release of medium strength beer for retail distribution, lead to noticeable increases in the rates of alcohol consumption and alcohol problems in these jurisdictions.

In the case of taxation policies, econometric studies have shown fairly consistently that alcoholic beverages - in

( spite of the wide variety of their uses - tend to behave on the market like many other commodities (Table II). Thus, as prices have fallen the consumption of alcoholic beverages generally increased, and in the few instances where prices increased sharply the demand decreased. However, the price effect varies noticeably between different types of beverages, countries and regions which illustrates one of the major difficulties inherent in both the econometric analyses of the price effect on alcohol problems as well as in the studies of the efficacy of other control laws. Beverage alcohol - unlike many other commodities - has a wide variety of usages, e.g., dietary, medical, ritual and social. Each of these use patterns may have quite different demand elasticities and the proportionate occurrence of each usage may vary considerably over time, space or cultural group.

For instance, in recent years there has been a rather rapid diffusion of new drinking styles into societies which traditionally had low to medium levels of consumption (4). In many societies where alcohol use was largely restricted to a few social occasions and involved only one or two of the major types of beverage alcohol, we now find that alcohol use occurs more frequently and involves all the major types of beverage alcohol. Indeed, if we consider the changes in consumption levels by type of beverage we note that beer consumption rose very rapidly in countries where alcohol use

patterns involving beer were practically non-existent, alcohol use patterns involving wine are now much more prevalent in countries where wine consumption used to be relatively rare, and distilled spirits have been marketed quite successfully in countries where traditional usage of this type of alcoholic beverage was virtually absent (Table III). It would seem, therefore, that one of the underlying assumptions in econometric analyses, namely that the behavior of the market tends to be constant and that the type of needs for alcohol do not change to any significant extent, is not always justified.

A second difficulty in the study of the efficacy of alcohol control laws and taxation policies is that the enactment, repeal, relaxation and tightening of such measures is rarely an isolated event. For example, in Canada during the last decade many changes have occurred. There has been an increase in the number of outlets, new types of drinking places are now permitted, hours of sale have been extended, drinking age has been lowered, the real cost of alcohol has gone down, some restrictions on alcohol advertising have been removed. At the same time a wider variety of use patterns have now been accepted in a more sophisticated and affluent Canadian society. In short, many of the etiologically relevant cultural, economic and legal factors tend to be quite closely related in time and therefore their separate effect, if any, on the incidence of alcohol problems is virtually impossible to

ascertain.

In our report on the effects of legal restraint on drinking many of the other methodological difficulties inherent in evaluative research in the field of alcohol control policies are discussed. Again, it would be hazardous to state that a specific change in a control law or in taxation will result in a given effect on the rate of an alcohol problem. At the same time we wish to emphasize that over the last two decades or so, in most Western countries a steady and at times rapid increase in alcohol consumption and alcohol-related problems has occurred together with a relaxation of many control laws and a decrease in the cost of alcohol (Table IV). Only in France where a determined effort has been made towards restricting alcohol availability (e.g., by reducing the frequency and location of outlets, removing the private distiller's license, raising alcohol taxes) do we find a decrease in alcohol consumption rates and in deaths from liver cirrhosis that began 5 to 6 years ago (5, Table V). Although we are quite well aware of the reasons why these relationships should be interpreted with due caution, the sum total of the available evidence suggests very strongly that, in all low to medium consumption countries, whenever beverage alcohol became more readily available - because of lowering its real cost and/or because of a relaxation in control laws - levels of alcohol consumption and rates of alcohol problems showed a tendency to increase.

Policy recommendations

Accordingly, the Addiction Research Foundation made the following proposals to the Ontario Government:

- 1) A taxation policy which maintains a reasonably constant relationship between the price of alcohol and levels of disposable income (income after taxes) in the Province. For example, if disposable income per capita rose 5% in a year, then the price of each alcoholic beverage offered for sale would be increased by that percentage.
- 2) A moratorium on further relaxation of alcohol control measures and the adoption of a health-oriented policy with respect to such measures. Essentially, this would mean that future proposals to change legislative or other provisions governing the marketing and distribution of alcoholic beverages would be tested against a health objective, namely the prevention of further increases in the prevalence of alcohol problems. The relevant question would become: Are the proposed changes likely to contribute to higher consumption levels and therefore to an increase in health costs?
- 3) An education program designed to increase public awareness of the personal hazards of heavy alcohol consumption, the economic and other consequences for society of high consumption levels, and the potential public health benefits of appropriate control measures.

Incidentally, in the most recent Report of the WHO Committee on Drug Dependence, quite similar recommendations are made to governments (6). Although in our view the aims of these proposals are quite modest - many impediments to their implementation can be anticipated.

Impediments to a public health oriented alcohol policy

First, alcohol use at many different occasions is now quite common and there appears to be little public awareness of the consequences to health of increased consumption. Indeed, many of the newly integrated drinking patterns are considered to be rather sophisticated and quite harmless.

Second, the rapid diffusion of a wide variety of alcohol use patterns into societies with traditionally low levels of consumption has been facilitated by the very efficient marketing efforts of large and often multi-national industries. Also, these industries have been selectively quite active in the field of alcohol research and education. For example, the House of Seagram distributes, in Canada, free of charge, the pamphlet "Alcohol and Alcoholism: Problems, Programs and Progress", a booklet originating with the National Institute on Alcohol and Alcoholism in which any association between legal controls, volume of consumption and rates of alcoholism is denied (Appendix 1).

Third, as I mentioned earlier, no matter how much evidence can be marshalled to support the above proposals, there is no doubt that to a purist the many studies which have led to these proposals all have some methodological shortcomings. In many areas of life style research this is unavoidable. But, since government control of drinking is politically a sensitive and controversial issue, these weaknesses tend to be exploited by the adversaries of such controls while the degree of consistency in the available evidence tends to be ignored.

Fourth, the *raison d'être* of many control laws in the recent past was the social welfare responsibility of governments and not their concern with public health. That some of the same Temperance-tainted control measures which aimed at curbing drunkenness among the poor are now being proposed as public health measures aimed at protecting the health of the affluent may not be easy to explain.

Fifth, some key concepts in the public health approach to alcohol problems, such as the contagious aspects of use patterns, and the risks to health and dependency related to different consumption behaviors will also be difficult to disseminate.

A sixth impediment to the implementation of these proposals would be the existence of several quite popular notions about alcoholism which have been cultivated in recent years by both enlightened educators and the alcohol industry. Examples: alcohol problems are rooted in having ambivalent attitudes towards drinking; the consumption of wines and beer is less likely to lead to alcohol dependence.

Seventh, there is the legislators' perception of the public reaction to the reactivating of restraints on alcohol availability. Although the results of a few recently conducted surveys would seem to indicate that a surprisingly large segment of the population is quite willing to drink less and to pay higher alcohol taxes if these actions would reduce the rates of alcohol problems, legislators may not be aware of the extent of public support for legal restraints (7). In this context it should be noted that the news media often present a very liberalizing and biased point of view regarding alcohol control laws.

#### Postscript

There is little doubt that these and other factors may seriously delay, if not prevent, the implementation of alcohol control policies which place renewed emphasis on restraining availability. As I mentioned before, the issue of alcohol controls is politically highly sensitive. But the urgent facts are that, in North America, as well as in most other parts of the Western world, alcohol consumption has been steadily increasing over the recent past. Not only are more people drinking now, but their consumption has gone up as well. Drinking occasions have become more numerous, and alcohol use has more and more become an integral part of our daily life. These developments have had a measurable effect on the rate of such alcohol problems as health damage and physical dependence

on alcohol. In our view, these trends should be monitored and regularly brought to public attention. Although the responsibility of government in the area of alcohol control is not well defined - how much alcohol use is to be tolerated at what cost - it is certain that the present government policies of making alcohol more accessible and less expensive relative to disposable income will definitely not result in a stabilization of the prevailing trends towards higher rates of consumption and alcohol problems.

## NOTES AND REFERENCES

1. One of these exceptions concerns the problem of intoxication while driving an automobile. Several measures have been specifically designed to reduce the magnitude of this problem and their efficacy has been the subject of many investigations. For instance:  
  
Ross, H.L. The effectiveness of drinking and driving laws in Sweden and Great Britain, Proceedings of the 6th International Conference on Alcohol, Drugs, and Traffic Safety, Toronto, Sept. 8-13, 1974, Addiction Research Foundation, in preparation.
2. Popham, R.E., Schmidt, W. and de Lint, J. The effects of legal restraint on drinking. In: Biology of Alcoholism Vol. IV: Social Biology, (B. Kissin & H. Begleiter, Eds.). Plenum Publ. Corp., New York, in press 1974.
3. For example:  
Beer, Wine and Spirits: Beverage Differences and Public Policy in Canada, The Report of the Alcoholic Beverage Study Committee, Brewers Association of Canada, Ottawa, 1973.
4. Ahlström-Laakso, S. European drinking habits: A review of research and some suggestions for conceptual integration of findings. Paper presented at the Conference on Anthropology and Alcohol Studies, Chicago, Aug. 28-30, 1973.
5. Fleck, L. The twelve-year struggle against alcoholism in France. In: World Dialogue on Alcohol and Drug Dependence (E.T. Whitney, Ed.). Beacon Press, Boston, 1970.
6. The 20th Report of the WHO Expert Committee on Drug Dependence, World Health Organization, Geneva, 1973.

7. For instance, in Ontario, the results of a recent survey on social control and alcohol attitudes, conducted by the York University Survey Centre, indicate that more than half of the respondents are willing to pay more for alcoholic beverages if this would reduce the number of alcoholics. More than 70 per cent of drinkers said they would be willing to drink less if this would eventually lead to a reduction in the rate of alcohol problems\*. In another recent survey, conducted by the Liquor Control Board of Ontario, it was found that a vast majority of the interviewees are against a further relaxation of alcohol control laws in the Province\*\*.

\* Goodstadt, M. et al. Survey on social control and alcohol attitudes in Ontario, Addiction Research Foundation, in preparation.

\*\* Ministry of Corporate and Community Affairs, personal communication.

TABLE I

WORLD PRODUCTION OF BEER, WINE AND DISTILLED SPIRITS  
IN HECTOLITRES 1960 AND 1970<sup>1</sup>

Year	Beer <sup>2</sup>	Wine <sup>3</sup>	Distilled Spirits <sup>4</sup>
1960	411,000,000	247,000,000	12,165,000
1970	638,000,000	309,000,000	20,066,000

<sup>1</sup> Hoeveel alcoholhoudende dranken worden er in de wereld gedronken?  
Produktschap voor Gedistilleerde Dranken, Schiedam, the Netherlands,  
12e Uitgave, 1973

<sup>2</sup> Production data available for 113 countries.

<sup>3</sup> Production data available for 51 countries.

<sup>4</sup> Production data available for 28 countries.

TABLE II

INCOME AND PRICE ELASTICITIES OF DEMAND FOR DIFFERENT ALCOHOLIC  
BEVERAGES IN A NUMBER OF COUNTRIES\*

Author	Country and time period	Beverage	Income Elasticity **	Price Elasticity ***
Malmquist	Sweden 1923-1939	Spirits	0.3	-0.3
		Wine	1.2	-0.9
Malmquist	Sweden 1923-1939	Liquor	0.3	-0.37
		Wine	1.32	-0.72
Sundström & Ekström	Sweden 1931-1954	Spirits	0.9	-0.3
		Wine	2.0	-1.6
Bryding & Rosen	Sweden 1920-1951	Spirits	0.6	-0.4
		Wine	0.9	-1.6
		Medium Beer	0.6	-1.2
Huitfeldt & Jorner	Sweden 1956-1968	<u>Off-sale:</u>		
		Vodka	0.0	-0.9
		Other spirits	1.4	-2.9
		Fortified wines	0.2	-0.7
		Light wine	-	-0.6
		Strong beer	1.9	-3.0
		Spirits	0.4	-1.2
		Wine	(0.9)	-0.7
		Spirits + Wine	0.7	-1.0
		<u>On-sale:</u>		
		Vodka	1.0	-0.3
		Other spirits	0.2	-0.5
		Strong beer	2.0	-0.1
Nyberg	Finland 1949-1962	Vodka	0.42	-0.13
		Other spirits	1.30	-0.95
		Wines	0.97	-0.83
		Malt beverages	0.23	-0.49
		Total off-sales	1.05	-1.17
		Total on-sales	0.94	-0.99
		Total sales	1.01	-1.11
Stone	United Kingdom 1920-1938	Spirits	0.6	-0.6
		Imported wine	1.4	-0.6
		Domestic wine	1.7	-0.3

TABLE II cont'd.

Author	Country and time period	Beverage	Income Elasticity**	Price Elasticity***
Stone	United Kingdom 1920-1938	Spirits	0.54	-0.72
		Beer	0.14	-0.73
Walsh & Walsh	Ireland 1953-1967	Spirits	1.94	-0.57
		Beer	0.78	-0.17
Simon	United States 1955-1961	Spirits	-	-0.97
Niskanen	United States 1934-1954	Spirits	-	-1.74
Niskanen	United States	Spirits	-	-1.42
Niskanen	United States 1934-1941, 1947-1960	Spirits	-	-2.0
Schweitzer	Canada	All alcoholic beverages	0.88	-0.19
Lau	Canada 1949-1969	Spirits	0.68	-1.45
		Wine	1.43	-1.65
		Beer	0.20	-0.03

\* Österberg, E. The pricing of alcoholic beverages as an instrument of control policy, Finnish Foundation for Alcohol Studies, Helsinki, 1974.

\*\* The income elasticity values indicate the percentage increase in consumption that would result from a 1 per cent increase in income.

\*\*\* The price elasticity values indicate the percentage decrease in consumption that would result from a 1 per cent increase in price.

TABLE IIIa

THE 1960 AND 1970 TOTAL ALCOHOLIC BEVERAGE CONSUMPTION  
 PER CAPITA 15 YEARS AND OLDER IN LITRES OF ABSOLUTE ALCOHOL  
 (WITH PERCENTAGE INCREASES)

Country	1960	1970	% change 1960-70
France	27.32	23.98	-12.23
Italy	19.05	20.73	8.82
Spain	11.89	16.89	42.05
Luxembourg	13.75	16.21	17.89
W. Germany	10.15	16.04	58.03
Portugal	15.32	15.72	2.61
CSSR	10.38	14.55	40.17
Switzerland	12.58	14.52	15.42
Austria	10.85	13.29	22.49
Belgium	11.71	13.21	12.81
Hungary	9.15	12.95	41.53
Australia	9.45	11.68	23.60
N. Zealand	9.49	11.02	16.12
E. Germany	7.29	10.47	43.62
Yugoslavia	6.79	10.36	52.58
U.S.A.	7.83	9.74	24.39
Denmark	6.11	9.70	58.76
Canada	7.85	9.58	22.04
Gt. Britain	6.80	8.32	22.35
Sweden	5.86	7.94	35.49
Netherlands	3.82	7.81	104.45
Poland	6.16	7.52	22.08
Rep. Ireland	4.90	7.27	48.37
Finland	3.87	6.33	63.57
Norway	3.56	4.37	22.75

TABLE IIIb

THE 1960 AND 1970 DISTILLED SPIRITS CONSUMPTION PER CAPITA  
15 YEARS AND OLDER IN LITRES OF ABSOLUTE ALCOHOL  
(WITH PERCENTAGE INCREASES)

Country	1960	1970	% change 1960-70
Poland	3.62	4.42	22.10
Yugoslavia	2.61	4.03	54.41
U.S.A.	2.99	4.01	34.11
W. Germany	2.45	3.95	61.22
Spain	2.76	3.95	43.12
Canada	2.57	3.56	38.52
Hungary	1.88	3.43	82.45
E. Germany	1.77	3.41	92.66
Sweden	2.95	3.34	13.22
CSSR	1.32	3.09	134.09
France	2.74	3.01	9.85
Netherlands	1.64	2.82	71.95
Finland	1.86	2.41	29.57
Switzerland	2.06	2.41	16.99
Luxembourg	1.60	2.30	43.75
Italy	1.26	2.24	77.78
Rep. Ireland	1.09	2.11	93.58
Austria	3.07	1.85	-39.74
Belgium	1.01	1.73	71.29
Denmark	.83	1.66	100.00
Norway	1.71	1.56	-8.77
N. Zealand	1.47	1.54	4.76
Australia	1.19	1.46	22.69
Gt. Britain	.99	1.20	21.21
Portugal	.71	.70	-1.41

TABLE IIIc

THE 1960 AND 1970 WINE CONSUMPTION PER CAPITA 15 YEARS AND  
 OLDER IN LITRES OF ABSOLUTE ALCOHOL (WITH PERCENTAGE INCREASES)

Country	1960	1970	% change 1960-70
Italy	17.44	17.74	1.72
France	20.68	16.82	-18.67
Portugal	14.40	14.09	-2.15
Spain	8.37	10.26	22.58
Switzerland	5.65	6.53	15.58
Hungary	4.81	5.75	19.54
Luxembourg	4.76	5.72	20.17
Austria	3.18	4.93	55.03
Yugoslavia	3.70	4.49	21.35
W. Germany	1.65	2.70	63.64
CSSR	2.18	2.30	5.50
Belgium	1.22	2.19	79.51
Australia	.91	1.54	69.23
Sweden	.51	.97	90.20
N. Zealand	.38	.97	155.26
Poland	.82	.93	13.41
Denmark	.49	.93	89.80
Netherlands	.33	.85	157.58
U.S.A.	.59	.83	40.68
E. Germany	.48	.79	64.58
Canada	.37	.73	97.30
Finland	.22	.65	195.45
Gt. Britain	.25	.46	84.00
Norway	.20	.37	85.00
Rep. Ireland	.16	.28	75.00

TABLE III d

THE 1960 AND 1970 BEER CONSUMPTION PER CAPITA 15 YEARS AND  
OLDER IN LITRES OF ABSOLUTE ALCOHOL (WITH PERCENTAGE INCREASES)

Country	1960	1970	% change 1960-70
W. Germany	6.05	9.39	55.21
CSSR	6.88	9.16	33.14
Australia	7.35	8.68	18.10
Belgium	7.32	8.63	17.90
N. Zealand	7.64	8.51	11.39
Luxembourg	7.3 <sup>a</sup>	8.19	10.83
Denmark	4.79	7.11	48.43
Gt. Britain	5.56	6.66	19.78
Austria	4.60	6.51	41.52
E. Germany	5.04	6.27	24.40
Canada	4.91	5.29	7.74
Switzerland	4.08	5.08	24.51
U.S.A.	4.25	4.90	15.29
Rep. Ireland	3.65	4.88	33.70
Netherlands	1.72	4.00	132.56
Hungary	2.46	3.77	53.25
Sweden	2.40	3.63	51.25
Finland	1.79	3.27	82.68
France	2.40	2.71	12.92
Spain	.76	2.68	252.63
Norway	1.65	2.44	47.88
Poland	1.72	2.17	26.16
Yugoslavia	.48	1.84	283.33
Portugal	.21	.93	342.86
Italy	.35	.75	114.29

TABLE IV

THE COST OF 1 GALLON OF ABSOLUTE ALCOHOL IN THE FORM OF WINE,  
BEER AND DISTILLED SPIRITS EXPRESSED AS A PERCENTAGE OF ANNUAL  
PER CAPITA DISPOSABLE INCOME, CANADA 1950, 1960 AND 1970.

Year	Wine (%)	Beer (%)	Distilled Spirits (%)
1950	3.36	3.16	6.30
1960	2.87	2.58	4.73
1970	2.28	1.83	3.39

TABLE V

LIVER CIRRHOSIS MORTALITY RATES AND PER CAPITA ALCOHOL  
CONSUMPTION, FRANCE 1950 TO 1972

Year	Deaths from liver cirrhosis per 100,000*		Per capita consumption in litres of abs. alc.
	Male	Female	
1950	21.53	12.05	19.86
1951	25.28	14.64	20.36
1952	29.67	17.54	20.75
1953	34.05	19.75	20.72
1954	36.82	20.77	20.89
1955	39.47	22.16	21.42
1956	41.74	22.88	21.34
1957	40.40	20.33	21.33
1958	37.34	17.43	20.07
1959	37.41	17.30	20.19
1960	39.87	18.40	20.12
1961	41.88	19.02	20.26
1962	43.84	19.42	19.73
1963	45.30	19.79	19.98
1964	46.20	20.07	20.18
1965	47.99	20.56	19.79
1966	49.91	20.91	19.61
1967	50.67	20.90	19.03
1968	50.41	20.79	18.61
1969	49.59	20.52	18.26
1970	48.81	20.30	18.28
1971	48.82	20.38	18.24
1972	48.93	20.37	18.30

\* Centered moving averages

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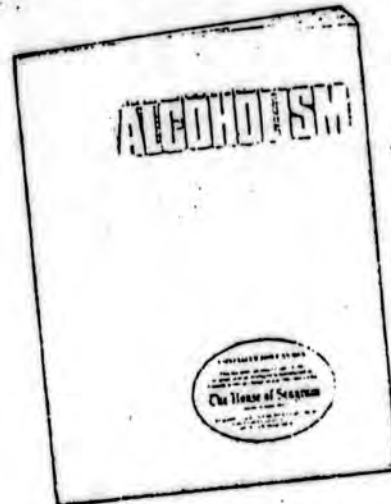
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## Alcohol Control Policy in Canada

REGINALD G. SMART

Alcohol controls have been a controversial and rapidly changing aspect of public policy in Canada. In the past, the temperance sentiment was so important in Ontario that elections of government were won or lost because of it. As alcohol policies become liberalized, they also become much less important politically. However, public controversy still surrounds the minimal drinking age, alcohol advertising, and whether beer and wine should be sold in grocery stores. Alcohol control policies are complex in Canada, with laws and regulations varying by province and over time in the same province. This chapter describes the background of controls in Canada, their current status and rationale, and the controversy surrounding them.

### ALCOHOL CONTROL IN CANADA: AN OVERVIEW

The constitution in Canada is currently a combination of the new Canadian Constitution and remnants of the British North America Act (B.N.A. Act), which together define the powers of the various levels of government and the courts. The B.N.A. Act of 1867 set out the most important rules for the establishment of institutions and the use of political power in the country, and these have not yet been changed by the new Constitution. It describes the powers held by the federal and provincial governments. Although alcohol control policies, alcohol sales, and alcohol distribution are

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not specifically mentioned in the Act, it is stated that "in each province the legislature may exclusively make laws in relation to . . . Shop, Saloon, Tavern, Auctioneer, and other licenses . . . [and] . . . generally all matters of a merely local or private nature in the province." Also, trade within provinces is regulated by the provinces themselves. In practice, most aspects of alcohol control policies, such as ages of access to alcohol, numbers and types of outlets, distribution networks, types of beverages, and hours of sale are governed by the provinces.

Limited federal powers control some aspects of how alcoholic beverages are marketed. For example, the federal government controls customs and hence most aspects of importation. It can also tax alcoholic beverages in all provinces. Because broadcasting is federally controlled, the types of alcohol advertisements are limited by federal regulations. Alcohol sales on airplanes, in airports, and to Eskimos and Indians are also federally regulated. Both federal and provincial regulations govern packaging, labeling, and the purity of the ingredients of alcoholic beverages. In practice, however, the alcohol control system is chiefly a provincial one and is seen to be so by citizens and politicians.

Because alcohol control policies are mostly a provincial matter, there is no one unified system of controls. There are 10 provincial systems plus one for the Yukon and another for the North West Territories, or 12 in all, plus many local variations on Indian reservations and in Eskimo communities. There is little effort to harmonize these systems or to provide central control or management. Each is operated independently.

#### ALCOHOL CONSUMPTION IN CANADA

Per capita, alcohol consumption in Canada increased by about 50% between 1950 and 1975. In 1975 the average consumption was 2.47 gallons of absolute alcohol per person (15 and over). Since 1975 there has been virtually no change in average consumption. Speculations about the reasons for the recent stabilization of consumption include changes in life-style and attitudes, increased prices, concern about alcohol problems, and personal austerity created by the stabilization of real income. Currently, the actual importance of these reasons is unclear.

Alcohol use is not uniform across the country (Addiction Research Foundation, 1978). The highest consumption is in the Yukon and the North West Territories—about twice as high as in New Brunswick. Indians and those living in the north are especially high consumers. Currently, about 80% of the adult population drinks, with higher proportions of drinkers among men, those aged 18 to 55, and those living in large cities. About 50% drink once a week or more and 10% to 15% drink almost daily.

Canada is a predominantly beer- and spirits-drinking country. About 53% of alcohol is consumed as beer with about 38% as spirits and about 9% as wine. Spirits contribute a larger proportion to overall consumption in the provinces of Ontario, Manitoba, Alberta, British Columbia, and the Yukon. Beer predominates in the other provinces. Although wine has made the largest proportionate increase in sales over the past 25 years, it remains a small part of all alcohol sold. Single and Giesbrecht (1979) have estimated that the contribution of home production of beverages results in an underestimation of real consumption by about 4% to 6%. Home production has never been a substantial contributor to consumption in Canada.

### CURRENT STATUS OF MAJOR ALCOHOL CONTROLS

In Canada, alcoholic beverages are made available chiefly through government monopoly systems. Each province has a "liquor control" board, commission, or corporation. These boards, or commissions, have virtually total control over what alcoholic beverages can be sold, how and when they are sold, and to whom. They also set prices for alcoholic beverages (along with the federal government) and govern the number of outlets of all types. This differs considerably from some states in the United States and many European countries in which prices and availability are set by market forces rather than government regulation.

### SALES OUTLETS

Various alcohol monopolies exert strong control over the distribution of alcoholic beverages. None of the monopolies actually produces alcoholic beverages of their own. However, some do import them in bulk and re-bottle them with their own labels and thus appear to the consumer to be the manufacturer. In fact, all production of alcohol in Canada is in the hands of private companies.

The relative proportions of different types of outlets vary somewhat from one province to another within a rather narrow range. In no province do monopolies operate restaurants or bars, and their retail activities are limited to package stores of different types. The most usual situation is that spirits and wine are sold only through the monopoly's own stores, whereas beer is more freely available. However, in Ontario there are a small number of privately owned wine stores operated by the wineries.

A few provinces allow the sale of alcoholic beverages in grocery stores. Quebec allows the sale of beer and wine in small grocery stores, as well as in the liquor corporation's own stores. Ontario does not technically allow the

sale of wine in grocery stores, but a few large stores have small booths for wine sales operated by the wineries themselves. However, wine purchases must be paid for separately and cannot be part of the food sales. Beer is sold in food stores in Newfoundland. No other provinces allow the sale of alcoholic beverages in food stores.

Packaged beer is made available in Canada in a number of ways. Typically, imported beer is available only through monopoly stores. Local beer is sold only through such stores in several Maritime provinces. In Ontario, however, it is sold not only through monopoly stores, but also at breweries and at stores owned by the brewery consortium. Western provinces have sales through board stores but also sales through hotels with off-premise licences. The Canadian drinking public has far better access to beer than to wine or spirits, except perhaps for the Quebec drinker who can purchase beer and wine at grocery stores.

On-premise consumption is allowed at a variety of places, including the following:

1. Taverns, or public houses, or beer parlors typically sell only beer (with or without food). Restrictions have been raised in some provinces to sell wine as well. Western provinces recently have allowed the sale of spirits in these previously "beer only" places.
2. Restaurants can sell alcoholic beverages only with meals. The majority can sell all three types of beverages, but some are limited to beer and wine.
3. Lounges sell all beverages without any food requirement.
4. Clubs may have the right to sell any or all beverages on a permanent basis.
5. For special events, churches, clubs, or other institutions may get licenses to sell beverages, usually only wine or beer, for a particular event (e.g., a wedding or party).

Local option laws in most provinces allow voting on the introduction of different types of outlets. In most parts of Canada such votes have been won by liberal forces and consequently alcoholic beverages are available nearly everywhere. However, some anomalies exist. For example, local option has kept alcoholic beverages from being sold in any form in an area of Toronto, and several communities in the North West Territories have voted to have prohibition introduced (Smart, 1979).

Visitors to Canada usually find availability of alcoholic beverages low compared to most European countries or most parts of the United States and about comparable to most Scandinavian countries.

### HOURS OF SALE

The hours of sale in Canada are difficult to summarize. They change frequently. Most package stores are open for business for 8 to 12 hours per day with no sales on Sundays or holidays. On-premise consumption is typically allowed from noon until midnight or 1 A.M., with a break for the dinner hour in some provinces. Formerly, on-premise consumption on Sundays was not generally allowed, but now some provinces allow Sunday drinking especially when a meal is also ordered.

### ADVERTISING OF ALCOHOLIC BEVERAGES

There is a wide range of laws and regulations affecting advertising in Canada. Prince Edward Island permits virtually no advertising of any kind while in Saskatchewan and in New Brunswick only public service advertisements in newspapers are allowed. Ontario and Quebec are the most liberal about advertising, but neither allows exterior signs, billboards, or posters. All Canadian provinces have far less alcohol advertising than do European countries and most states in the United States.

The advertising of alcoholic beverages is limited by both federal and provincial regulations. Although federal regulations forbid the advertising of spirits on radio or television, magazine and newspaper advertising is allowed for spirits in several provinces. In most provinces beer and wine can be advertised in any media but wine is not frequently advertised on radio and television because of the high costs. Even where advertising is permitted, there are numerous regulations as to types of advertisements allowed, who can be in them (no children), what they can portray (fun but no problem-solving effect of alcohol), and where they can be presented (e.g., not on children's television programs). Manitoba has recently banned beer advertising in electronic media as did British Columbia, but there seems to have been no effect on sales (Ogborne & Smart, 1980; Smart & Cutler, 1976).

### LEGAL DRINKING AGE

The legal drinking age for alcoholic beverages is either 18 (Prince Edward Island, Quebec, Manitoba, Alberta) or more frequently 19. It changed in all areas from 20 or 21 in the period between 1970 and 1975. This was part of a general movement toward lowering and standardizing the

age of majority. Recent findings by several provinces that these age reductions led to increases in drinking and drinking problems among young people (Smart & Goodstadt, 1977) have led to debate about the age law in many provincial legislatures. Consequently, Saskatchewan and Ontario increased their drinking ages from 18 to 19 in the late 1970s.

### SOME HISTORY AND CURRENT POLICY ISSUES

Alcohol control policies have been public and political issues in Canada. In the early 1900s politicians could not be elected in many areas without a clear temperance plank to their platform. Temperance issues were frequently debated in legislatures. Most provinces voted for prohibition in the early part of the century. The temperance movement seems to have lost its political base and now holds little influence over political life in Canada.

Much of the current availability of alcohol in Canada is recent and follows a change in public attitudes concerning it. Prior to conclusion of World War II, many provinces had no on-premise consumption of spirits in bars or lounges and few restaurants where any alcohol could be purchased. "Beer parlors" and "hotels" were common where only beer was sold, frequently only to men, although some had "women's sections." With the end of the World War II there were many social and attitudinal changes. A clear need was seen by politicians (apparently without actual surveys) for bringing liquor laws into step with more liberal public attitudes. The period from 1948 to 1975 was one in which physical availability of alcohol to Canadians greatly increased. The number of changes is too great to document fully here but the list for Ontario, which is similar to most provinces, includes the following:

- 1948—Drinking in bars—spirits by the drink for the first time
- 1951—Votes of local option nature could be held before a license was issued rather than only afterward
  - Liquor could be consumed in a trailer or tent for the first time
- 1953—Food could be sold in taverns
- 1956—Local option votes were allowed in areas with populations of 50,000 or over
- 1957—Liquor permit books discontinued in favor of permit cards
- 1960—Allowance was made for carrying liquor bottles from the store to a residence
  - Liquor could be given as a gift
- 1962—Liquor permits were discontinued altogether
  - Private clubs could have licenses in otherwise dry areas

- Hours of sale for on-premise consumption were extended up to 12 hours per day
- 1962—Liquor could be served through room-service in hotels
  - Motels and summer resorts were allowed to apply for licenses for the first time
- 1965—“Wine” could be made from all fruits as well as grapes
  - No cancellation of licenses allowed without a hearing
  - Right to appeal interdiction proceedings introduced
  - Allowed hotels in small towns to apply for licenses
  - Allowed sale of liquor on airplanes
  - Allowed sale of liquor in theatres
  - Allowed opening of public houses between 6:30 and 8:00 P.M.
  - Approved open-air drinking on patios, in backyards, etc.
  - Allowed drinking in hotel rooms for those who were not actual residents
- 1969—Introduction of self-service stores
- 1970—Allowed unsegregated seating of males and females in licensed establishments
  - Licenses could be granted to resort centers in dry areas of the provinces
- 1971—It was no longer necessary to order a meal in order to have a drink in a dining lounge
  - Drinking was allowed with meals on Sunday in licensed restaurants
  - Relaxed permits for special events, for example, fairs, festivals, winter carnivals, Oktoberfests, etc.
  - 40 oz. bottles of spirits allowed for sale (26 oz. was the largest before)
  - Package stores were allowed to stay open until midnight
  - Duty free stores at airports were allowed to sell alcoholic beverages
  - Drinking establishments were allowed to open after polls had closed on voting days
- 1971—Licenses were issued to new premises without a waiting period
  - Lowering of the legal drinking age from 21 to 18
- 1973—Broadening of definitions of recreational facilities and theatres eligible for licenses
  - Licenses allowed for canteens on campuses of colleges and universities
- 1975—Minors could be served alcohol by parents in their own houses
  - Opened bottles could be transported to any destination

None of these changes is significant in isolation. However, their combined impact was to change a temperance-oriented, rather dry province into one in which alcohol was readily available and the majority of people were drinking. Similar changes were enacted throughout the country.

At present, availability has stabilized or even slightly decreased in several parts of the country. Two provinces have *increased* the legal drinking age (Ontario in 1979, Saskatchewan in 1976). Several communities in the north have introduced prohibition (Smart, 1979) and others are considering it. Also, some provinces have introduced limited alcohol advertising bans for electronic media. In addition, some provinces (e.g., Ontario and Saskatchewan) recently have strengthened advertising codes to limit "lifestyle" advertisements. Several provinces have debated the issue of introducing wine and beer into grocery stores at the request of local merchants and tourist agencies. In Ontario and Manitoba, however, these plans have been clearly rejected, at least for the present. Overall, there seems to be a tendency for governments to hold physical availability at its present level and in some areas, for example, age laws and advertising, to even decrease it slightly. Whether this tendency can and should continue is a matter for speculation and debate.

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## A Note on the Effects of Changes in Alcohol Control Policies in the Canadian North

Reginald G. Smart<sup>1</sup>

**SUMMARY.** *Of three communities changing their alcohol control policies, only Frobisher Bay, the most isolated, experienced a noticeable decrease in arrests for assault and public drunkenness.*

Although tolerant attitudes toward drinking and drinking problems have been common in communities of the Northwest Territories since the 1960s, recent events indicate that attitudes are changing. This area has had a per capita consumption of 3.86 gallons of absolute alcohol per year, compared with 2.89 for British Columbia, the Canadian province with the highest per capita consumption, and 2.44 for Canada as a whole (1). It is thought<sup>2</sup> that violence and accidental death are related to heavy alcohol consumption in the Canadian North, and there has been increasing awareness of the need for change in alcohol control policies. During 1976 the laws of the Northwest Territories were changed to allow local option votes on banning the sale of various beverages. Since that time, at least 12 communities consisting mainly of Eskimos have voted to restrict the sale of alcoholic beverages or to ban them altogether. These bans have been enforced not only to control alcohol consumption but also to show the growing strength of the Eskimos' resolve to be free of the White man's problems and influences.

The purpose of this paper is to analyze the effects of these policy changes in three communities by examining changes in arrest rates for public drunkenness, assault and impaired driving; these communities are compared with two communities that did not change their alcohol control policies. Other communities that had changed their alcohol control policies were too small or had adopted changes too recently to be included in this statistical analysis. Although statistics on alcohol-related arrests may be influenced by such factors as public policy regarding arrests, these statistics were the most relevant data available for communities as small as those studied.

Previous research (e.g., 2, 3) has shown that substantial changes in

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<sup>2</sup> GIESBRECHT, N. Alcohol consumption, alcohol problems and economic development in northern Ontario. Addiction Research Foundation Substudy No. 945, 1978.

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the availability of alcohol (e.g., prohibition or a decrease in the legal age of purchase) affect per capita consumption, but small changes (e.g., in number of outlets or hours of sale) do not. When package stores have been closed during strikes, the incidence of drunkenness and other alcohol-related problems has been reduced (4, 5). It was predicted that prohibiting the sale of alcoholic beverages in the Northwest Territories would have considerable effect on rates of arrest for public drunkenness, assault and driving while impaired since the northern communities are relatively isolated, with few roads connecting them and infrequent air service, if any, which is subject to interruptions from bad weather. If the package stores or bars in one of these towns are closed, it is more difficult to travel to the next town than it would be in a more developed area farther south. Also, since the communities are relatively small and homogeneous, any change in laws, especially if it was supported by a popular vote, should have the predicted results. In view of these factors, the most noticeable effects of changes in alcohol policy would be expected in the most isolated communities. Soon after the changes were instituted, reports (e.g., 6) indicated a reduction in both drinking and alcohol-related problems.

#### METHODS

The data for this study were gathered from police records of arrests for public drunkenness, assault and driving while impaired (with a minimum blood alcohol concentration of 0.08%).<sup>3</sup> The communities chosen for study were Frobisher Bay, Rae-Edzo, Fort Resolution, Inuvik and Pangnirtung.

*Frobisher Bay.* A comparatively large town on Baffin Island, about 1280 air miles north of Montreal, Frobisher Bay had a population in 1976 of 2320; in 1975 there were 863 arrests for public drunkenness. Access to other communities is limited since no road system exists outside the town. Although the sole package store was closed on 30 April 1976, alcoholic beverages can be ordered by mail from Yellowknife or Montreal. From 1974 to 30 April 1976, Frobisher Bay had 4 alcohol sales outlets: a hotel, an Armed Services Club, a liquor warehouse and a private club. (At present, the liquor warehouse supplies surrounding communities by mail order but does not sell alcohol directly to the people of Frobisher Bay.) Since Frobisher Bay is so isolated, it was expected to show the most change in alcohol-related arrests after the new alcohol control policy was instituted.

*Rae-Edzo.* This town is actually 2 small, connected communities on northern Great Slave Lake, about 700 miles north of Edmonton. In 1976 its population was 1158, and in 1975 there were 196 arrests for public drunkenness. It is linked by a gravel highway to Yellowknife, Edmonton and to other more southerly cities. In the past, a complex but ineffective rationing system was applied to Indians in Rae-Edzo but not to Whites or Metis (people of mixed Indian and White parentages); however, in August 1976, total prohibition came into effect. From 1974 to the present, there have been no

<sup>3</sup> I am indebted to Nancy Cooper of Yellowknife and to the Royal Canadian Mounted Police for making these data available.

alcohol sales outlets in Rae-Edzo itself, although alcohol can still be imported by air or bought in Yellowknife or other, more southerly cities.

*Fort Resolution.* A small community on the southern shore of Great Slave Lake, about 600 air miles from Edmonton, Fort Resolution had a population of 497 in 1976. In 1975 there were 42 arrests for public drunkenness. Fort Resolution is linked by a gravel highway to Yellowknife, Edmonton and to more southerly cities. As with Rae-Edzo, there have been no outlets for alcohol sales in Fort Resolution from 1974 to the present, although there is a package store about 60 miles away by road. In March 1975 an additional form of rationing went into effect allowing no more than 12 bottles of beer and a 25-oz bottle of distilled spirits or wine per week per person. This rationing system, probably more persuasive than punitive, established that anyone caught by police with more than the allowable amount of alcohol could be charged.

*Inuvik.* This community, situated about 1200 miles northwest of Edmonton, is used in this analysis as a control for Frobisher Bay and Rae-Edzo. It experienced no change in alcohol control policies from 1974 to 1977. In 1976 its population was 3116, and in 1975 it had 1212 arrests for drunkenness. Inuvik is relatively isolated from the south, having only gravel-road and, in the winter, ice-road connections with smaller northern communities. It is an appropriate region for comparison with Frobisher Bay because both are similar in population size, ratio of White to Nonwhite residents, degree of isolation and arrests per population base in 1975. Also, the systems of alcoholic beverage control, i.e., through stores, bars and air importation, were similar in both areas prior to the change in Frobisher Bay. From 1974 to 1977 alcohol sales outlets in Inuvik included a hotel (with a dining room, cocktail lounge and tavern licensed to sell distilled spirits for on-premise consumption and beer for off-premise consumption), a liquor store, an Armed Services Club, a curling club, 2 buildings with licensed dining rooms and another building with a licensed dining room and cocktail lounge. In addition, both the military and Royal Canadian Mounted Police establishments in Inuvik are licensed alcohol sales outlets. Although the comparison of Inuvik to Rae-Edzo is less appropriate because of the differences in population size, no better control seemed to be available.

*Pangnirtung.* This community, used as a control for Fort Resolution, had no change in alcohol control policies until the end of 1977. It is a small community about 800 miles north of Montreal on Baffin Island. Its population in 1976 was 807; in 1975 there were 32 arrests for drunkenness. It is suitable for comparison with Fort Resolution because both communities, located far from major highways, experience similar problems of isolation.

#### RESULTS AND DISCUSSION

The rates of arrest for public drunkenness, assault and impaired driving in these communities are shown in Table 1 for quarterly intervals within the 1974 to 1977 period.

Comparing Frobisher Bay, which had its package store closed in April 1976, with Inuvik, which had no change in number of stores, it can be seen that arrests for both public drunkenness and assault decreased substantially immediately after the legal change in Frobisher Bay but only slightly in Inuvik. No real change in the rate of arrests

TABLE 1.—Rates of Arrests for Public Drunkenness, Assault and Impaired Driving in Five Communities of the Northwest Territories, 1974-1977\*

	PUBLIC DRUNKENNESS			ASSAULTS			IMPAIRED DRIVING		
	1974-76	1975-76	1976-77	1974-76	1975-76	1976-77	1974-76	1975-76	1976-77
Frobisher Bay	46.7	31.9	10.2	5.1	8.8	4.4	1.4	0.9	1.3
Inuvik	59.8	39.5	36.5	6.7	7.2	6.0	2.8	1.9	2.4
Rae-Edzo	15.3	20.8	26.7	2.6	3.4	1.8	1.5	0.9	0.6
Inuvik	46.5	36.3	45.1	6.4	7.0	5.3	1.7	2.2	1.8
	1974-75	1975-76		1974-75	1975-76		1974-75	1975-76	
Fort Resolution	24.0	10.3		7.3	8.8		4.7	3.6	
Pangnirtung	7.9	4.3		0.8	0.5		0.5	0	

\* Per 100 population, 1975. Inuvik and Pangnirtung, used as controls, did not change their alcohol control policies between 1974 and the end of 1977. Data for the Frobisher Bay-Inuvik comparison cover the period 1 April 1974-31 March 1977; for Rae-Edzo-Inuvik, 1 October 1974-30 September 1977; and for Fort Resolution-Pangnirtung, 1 April 1974-31 March 1976. Data for monthly periods were not available.

for driving while impaired is obvious for either area. Chi-square analyses were performed, comparing the rate of arrests in Frobisher Bay and Inuvik for the year preceding and the year following the change (in Frobisher Bay) and for 2 years preceding the change with the year following it. These analyses showed that arrest rates for drunkenness were lower in Frobisher Bay than in Inuvik for both the year before and the year after the change ( $\chi^2 = 64.18, p < .05$ ) and for 2 years before and the year after ( $\chi^2 = 67.35, p < .05$ ). Arrest rates for assault were significantly lower in Frobisher Bay than in Inuvik only when the year before and the year after the change were compared ( $\chi^2 = 4.06, p < .05$ ). It is obvious that the decline in arrest rates for drunkenness (but not assault) came at least 1 year prior to the closing of the Frobisher Bay package store in April 1976.

The arrest rates in Rae-Edzo and Inuvik showed no striking differences before or after the change of policies in Rae-Edzo, and none of the differences between the year preceding and the year following the change were significant. Arrest rates for public drunkenness in Rae-Edzo during the year following the change were, in fact, substantially greater ( $\chi^2 = 23.81, p < .05$ ) than in the period 2 years before, whereas in Inuvik they were essentially the same. A comparison of the arrest rates in Fort Resolution and Pangnirtung shows no striking differences before or after the change in policies in Fort Resolution. According to chi-square analyses, none of the differences between the rates for the year before and the year after the change were significant. As in Frobisher Bay, the decline in arrests for public drunkenness in Fort Resolution appeared to occur about a year before the change in alcohol control policy.

The results indicate that the changes in alcohol control policy had little effect in Rae-Edzo or Fort Resolution but considerable effect in Frobisher Bay, where arrest rates for public drunkenness and assault decreased markedly—and arrests for driving while impaired showed no change—immediately after the change in policy. An earlier study of liquor store strikes in Canada (5) also reported some effect on arrests for public drunkenness but none on arrests for driving while impaired. One possible explanation is that driving while impaired typically follows drinking in homes or bars, which would have been less affected by the closing of stores. However, arrests for public drunkenness, which generally follow drinking by Skid Row alcoholics in public places, would be affected by the change in policy.

The difference between Frobisher Bay and the other towns was predicted because it is the most isolated of the three areas studied. It is not on a road system, and when its package store closed, alcoholic beverages had to be imported by air or sea. The arrests for public drunkenness were already declining when the package store was closed, and arrests for assault were fluctuating but generally declining. Arrests for public drunkenness and assault showed an immediate reduction after the store's closing and later a return to a level approxi-

inating preclosing levels. Perhaps the public debate about alcohol problems in the Northwest Territories and the expected closing helped to generate more caution in drinking. It may be that more citizens will learn to use the rather slow and clumsy methods of the "booze charter," whereby a number of citizens get together, pool their orders for alcohol and charter a plane to bring it from the nearest liquor stores. Long binges often follow its arrival. If this is the case, the effects of the store's closing could be only temporary.

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control case—i.e., a country which is *not* "developing"—the Philippines turns out not only to have evaluations of jobs and occupations that correlate highly with the U.S. evaluations (and, indeed, also with the Pakistani evaluations) but also to exhibit strong economic growth as measured by index numbers of industrial production. Coefficients of rank correlation in the ratings of 15 occupations as between the Philippines and the U.S., Pakistan and the U.S., and the Philippines and Pakistan are +.965, +.875, and +.918 respectively—and all are significant at the one percent level.

#### CONCLUSIONS

For reasons which have been discussed throughout the paper, the conclusions which can be drawn from the data reported here (and from the analysis of them) are necessarily limited. We have found that in both Pakistan

and, for a smaller number of occupations, in the Philippines—both of which show clear evidence of vigorous economic development—there is strong similarity in the ways university students evaluate jobs and occupations and also that similarities exist between job and occupation ratings in each of them and the ratings of jobs and occupations made by a broader cross-section of the population of the United States, which we have taken as standard for an economically "developed" country. In the case of the rank ordering of 15 selected occupations, correlations were high and significant. This seems to support the proposition, though, again, it does not demonstrate it conclusively, that evaluations of jobs and occupations, at least by university students in developing countries, may be a useful measure of capacity for rapid modernization in terms of economic growth or development.

## HOW BAFFIN ISLAND ESKIMO HAVE LEARNED TO USE ALCOHOL

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#### ABSTRACT

Eskimo in Frobisher Bay, a new Baffin Island town, became legally entitled to drink alcoholic beverages in 1960. They embraced the opportunity with alacrity, one result being many arrests for drunkenness. To curb drinking, a law in 1962 limited alcohol sales. Public drunkenness has since declined and older Eskimo have begun to learn a drinking pattern resembling that of their Eurocanadian neighbors. Eskimo drinking shows few signs of being deficiency motivated. Men drink for the pleasure it gives them and consumption correlates with economic and social status, being one of the marks of a full-fledged townsman. Regular drinkers furnish only a small part of the trouble with which police must cope.

#### INTRODUCTION

Only rarely do social scientists arrive on the scene of their study while a theoretically significant, or otherwise important, cultural experiment is in progress. We were thus fortunate in being able to learn about the end of one phase of alcoholic drinking and observe the start of another, while studying other aspects of the newly established white-Eskimo town of Frobisher Bay, Baffin Island, one of the largest urban centers in the Cana-

dian Arctic.<sup>1</sup> Here, where Eskimo culture is undergoing especially rapid and thoroughgoing

<sup>1</sup> Our six months field work in Frobisher Bay, from March through most of August, 1963, was supported contractually by the Northern Co-ordination and Research Centre, Department of Northern Affairs and National Resources, Canada. We owe much to many people for aiding us in our study of drinking, but here we acknowledge only the valuable cooperation extended by Mr. Harold Zuckerman, social worker, and Mrs. T. Allured, manager of the Territorial liquor store in Frobisher Bay.

evolution, we could reconstruct how a curious, intelligent, and adventurous people suddenly introduced to legal drinking at first eagerly embraced the new source of stimulation and then, aided by new laws and other forces of social control, partly recoiled. When we left them, they were in the process of devising another style of drinking, whose outlines we will describe, though without knowing how final it will be.

The Eskimo response to alcohol is theoretically significant for the student of human behavior because it helps to correct the undue emphasis consistently placed on stress and other deficiency motivations as explanations of drinking.<sup>2</sup> To reason that Eskimo rushed to use alcohol because it came to them simultaneously with stressful and wholesale, rapid culture change is to apply theory in a stereotyped fashion, quite without regard for facts. Contrary to what we heard before reaching Frobisher Bay, Eskimo culture change despite its rapid nature and far-reaching extent has not generally traumatized and disorganized the Eskimo who settled in that community. We began our research with the advice that drinking and offenses stemming from drinking represented two kinds of deviant responses to pervasive psychological stress but discovered drinking by Frobisher Bay Eskimo in general not to be primarily deficiency motivated.

Increasingly the anthropologist works in communities where the abundance of written records allows him to collect quantitative data. Of course, he can also build such precision into his field work by designing suitable methods to collect quantifiable data, though counting would be wasteful if his problem did not especially benefit from quantification. There is no virtue in counting for its own sake.

In Frobisher Bay, a town of about 2,000 persons where some 900 Eskimo have settled, administrative records are accumulating rapidly. They were ideal in allowing us to follow changes in response to an administrative order implicitly designed to control excessive drinking by Eskimo, who only two years previously had won the legal right to drink on the same

<sup>2</sup> Cf. George D. Spindler, "Alcohol Symposium," *American Anthropologist*, 66 (1964), pp. 341-384.

basis as their non-Eskimo peers in the Northwest Territories.

#### THE TOWN

The town itself, at the head of the Bay discovered in 1576, came into being in 1942 when the United States Air Force located a weather station nearby. In 1943 construction began on an air strip. After a temporary absence, United States Air Force personnel returned in 1951 and Frobisher Bay became an important site supporting shipment of military material to Thule, Greenland. In 1952 a renewed building program got underway, including construction of a radar station, and in 1955 the place became a center of activity for sending supplies and men to the eastern end of the D. E. W. line, then under construction. In that year Canada's Department of Northern Affairs and National Resources (D. N. A.) began construction of housing for government-employed Eskimo and non-Eskimo personnel. Since then many more houses have been built for Eskimo, some on a cooperative basis, and other facilities have been added. The place increasingly attracted south Baffin Island Eskimo, but the years of heaviest immigration came with the intensified construction of 1957, a year when the Eskimo population totalled about 500 persons.

Eskimo draw livelihood from four main sources: wage labor; full-time hunting and trapping (by a variable number of men, including those who rarely seek wage work and others who have temporarily lost jobs); home industries, including sewing and carving with stone imported from southern Quebec; social assistance, a source of income that runs high in winter for the unemployed and for full-time hunters, and the government-operated Rehabilitation Centre, which in part accommodates disabled Eskimo who have come from various parts of the eastern Arctic to learn new skills that will enable them to survive in their home settlements. Unable to return to a strenuous life on the land, rehabilitants must be prepared for less active careers. Other rehabilitants are social problems, including promiscuous girls whom the court recommended to the Centre. Eskimo live in three dispersed neighborhoods connected by a bus. In Apex Hill rehabilitants live together with most of the Eskimo who are employed by D. N. A. Here the largest and



most modern houses are to be found, including privately owned co-op dwellings. In Ikhaluit, where a number of full-time hunters live as well as Eskimo employed by other organizations, houses vary from self-made, multi-roomed shacks to prefabricated dwellings bought from the Government. At the air base—where eight Eskimo families live in an apartmentlike building next door to Eurocanadian neighbors—the government offices, airport, stores, and the main school are located. Non-Eskimo also live in Apex Hill.

#### Start of Legal Drinking

Prior to January, 1960, Frobisher Bay Eskimo saw or heard of their Eurocanadian military and civilian neighbors using alcohol, but only illegally could they themselves possess and consume it. Then, in 1960, in consequence of a far-reaching court decision that freed all Canadian Eskimo from discriminatory injunctions concerning drinking, they acquired precisely the same privileges as the white man.

They can go to the counter of the Territorial liquor store on any of several afternoons and evenings, show their permit, and order wine, rum, whiskey, gin, or beer (including ale). Nothing can be sold by the liquor store except to a permit holder. Almost any evening they can sit down in the Rustic Room, a hotel tavern, and drink beer or hard liquor.

What happened when alcohol at not too steep prices<sup>3</sup> became legally available to Eskimo in Frobisher Bay? Records as well as knowledgeable informants agree that a number of Eskimo, both men and women, embraced the new opportunity with the same alacrity and enthusiasm they showed for other promising, new experiences. They purchased mostly beer and, lacking a tested pattern of drinking that would have regulated the speed and amount consumed at any one time, drank it without full awareness of consequences. The results are described as disastrous. For example, between 1959 and 1960, total court convictions (Eskimo and non-Eskimo) jumped from 53 to 155 and in 1961 reached 190,<sup>4</sup> the overwhelming proportion of

<sup>3</sup> In 1963 a bottle of good scotch whiskey cost \$6.75; a bottle of sherry, \$1.85; a dozen cans of beer, \$3.25.

<sup>4</sup> Harold Zuckerman, "Report of the Use of Liquor by the Eskimo People at Frobisher Bay," typescript, 1962.

TABLE I. NUMBER OF ESKIMO OFFENSES BY MONTH FROM DECEMBER, 1961 TO AUGUST 24, 1963 (21 MONTHS)\*

Months	Liquor Offenses	Criminal Offenses	Other	Total
<b>1961</b>				
December	27	7	—	34
<b>1962</b>				
January	7	—	—	7
February	6	1	1	8
March	6	2	—	8
April	10	9	—	19
May	14	3	—	17
June	4	1	—	5
July	16	1	—	17
August	6	2	—	8
September	10	1	—	11
October	2	5	—	7
November	5	2	—	7
December	4	—	—	4
<b>1963</b>				
January	2	—	—	2
February	—	1	1	2
March	4	3	—	7
April	1	—	—	1
May	14	1	2	17
June	11	1	—	12
July	5	1	—	6
August	1	4	—	5
<b>TOTAL</b>	<b>155</b>	<b>45</b>	<b>1</b>	<b>204</b>

\*Brackets cover comparable periods of time, from December to August.

persons convicted being Eskimo. Most of the arrests reportedly stemmed from offenses against the Territorial Liquor Ordinance, as they still do today. (Table 1) The increase in convictions far outran the increase in population, which rose from 624 Eskimo in 1958 to 761 in 1961. The social worker's report compares the first half of 1961 with 48 legal convictions, 40 of them Eskimo and six percent falling under the Liquor Ordinance, with the second half of that year when 68 persons were convicted, 65 of them Eskimo and 70 percent coming under the Ordinance. He estimates that over 90 percent of all offenses brought to court during the five years prior to March, 1962, stemmed wholly or partly from the "excessive use of alcohol." Violence is given as a specific "concomitant" of heavy drinking, including violence between spouses. Drinking also led adults to miss work, perform inadequately on the job, and eventually to lose their jobs and so miss payments on houses purchased from the government. Drinking promoted sexual promiscuity, sexual assault, and damage to houses,

cars, and garage doors. Due to guilt over drinking, he writes, people remained away from church, non-drinkers looking down on drinkers and making them feel unwelcome. Intoxication stimulated public disturbances and noise, frequently kept up till the early hours of the morning.<sup>5</sup> The town took various measures to curb excessive drinking. Police vigilance, fines, and jail sentences constituted pressure to control alcoholic indulgence. The social worker complained that the Eskimo fails to learn from such punitive measures. When he tried case work with people who drank heavily, he found it to be effective for only short periods of time. Also, each Saturday afternoon a small number of men who drank heavily attended group meetings at which, sometimes, a doctor spoke on drinking or the men played cards and checkers. However, the welfare officer questioned the effectiveness of those meetings. Townsppeople also received literature written in Eskimo, describing difficulties that could arise from excessive use of alcohol and explaining the relationship between drinking and offenses committed against the law. Sometime before March, 1962 the superintendent of the Rehabilitation Centre (a man fluent in Eskimo) helped write and produce six radio plays, most of which dealt with drinking and its connection with violence and other social problems. The local station aired the tape-recorded plays, which presented drinking with an unequivocally moral tone, giving drinkers and the tavern a disreputable air.

We did not manage to secure figures of actual alcoholic consumption going back to 1960, but we know that 71 licensed purchasers in a population of approximately 380 adults took 6,588, 5,520, 3,516, and 4,200 twelve-ounce cans of beer from the liquor store in May, June, July, and August, 1962, respectively, not counting

<sup>5</sup> Toshio Yatsushiro's manuscript notes obtained at Frobisher Bay and his paper, "The Changing Eskimo Economy," presented at the annual meeting of the American Anthropological Association in 1960 report drinking, theft, marital discord, deviant sexual behavior, gambling, and other signs of psychological strain and social disorganization to have been provoking concern as far back as 1958, that is, before even the legalization of drinking. He blames these behaviors on tension engulfing the Eskimo in their situation of extensive culture change.

what they drank or took home from the tavern. In addition they purchased 65 ounces of wine and spirits in May and 25 ounces both in July and August, 1962, from the liquor store, the only outlet from which wines and spirits could legally be ordered and paid for, to be picked up by the purchaser 3 weeks later.

#### *An Administrative Order*

Where educational and punitive measures to combat the Eskimo's enthusiastic response to alcohol reportedly proved discouraging, two measures administratively introduced in September, 1962, impress Eskimo and non-Eskimo observers as having been considerably more effective. Under the first regulation, the tavern could no longer sell beer to be taken off the premises. Under the second, customers at the liquor store had to wait three weeks before they could pick up their paid-for beer or any other alcoholic commodity. Although unpopular with some local Eurocanadians, who have circulated a petition to repeal the waiting period on beer, these measures have greatly pleased officials and police with the way they have apparently slowed down Eskimo drinking. Beer taken from the liquor store fell from 4,200 cans sold in August to 540 in September. In October, November, and December respectively, 71 licensed Eskimo purchasers took home from that outlet only 864, 1,188, and 1,140 cans of beer, but wines and spirits rose to 245, 750, and 565 ounces in those three months respectively. By May, June, and July, 1963, licensed purchasers had dropped to 32 and they carried home only 864, 1,032, and 660 cans of beer respectively and 190, 425, and 80 ounces of wines and spirits.

Public drunkenness also declined after September, 1962. Offenses against the Liquor Ordinance brought before the justice of the peace by the R. C. M. Police, which totaled 96 from December, 1961, to August, 1962, dropped to 42 between December, 1962 and August, 1963. (Table 1) Criminal offenses also fell, from 26 in the first period to 11 in the second period. Police and others connect these drops to the decline in excessive drinking. We rarely saw drunks abroad, so that the few intoxicated men who came late to the Saturday night dance (after an evening at the tavern) proved noteworthy.

(4)

Undoubtedly Eskimo have altered their use of alcohol, partly as a result of an administrative act and partly because they have decided not to make much use of the waiting period on beer and spirits. The decline in arrests, however, can't be confidently linked to the influence of the administrative order. There are other variables to be considered, about which it is difficult to secure any, much less precise, information. For example, did the police consciously or unconsciously relax their vigilance after the waiting period ensued for beer and the tavern ceased to make take-home sales? Another possibility, for which partial evidence will be presented later, is that Eskimo learned to modify their use of alcohol, drinking more cautiously. Some even ceased to drink, voluntarily and involuntarily. They learned not to make public appearances when they were intoxicated, the town's taxi system helping them get home from the tavern. The drinking pattern which we observed during our six months in Frobisher Bay differs considerably from the alarming pattern reported earlier. Even allowing for some degree of exaggeration in the earlier materials, evidence indicates that a change has occurred. To be safe, the dynamics of that change may be partly ascribed to more effective external regulations and advice and partly to personal learning.

Extending the waiting period to beer unquestionably reduced Eskimo patronage of the town's Territorial liquor store. We have comparable data on the number of Eskimo permit holders (all male) in the four months from April (when new annual permits become mandatory) to July 31, 1962—before the waiting period had been extended—and from April to July 25, 1963, after the waiting period. In the former four months, 78 Eskimo received permits from the liquor store; in the second, only 32. Apparently most permits are applied for close to the beginning of the permit year, that is, soon after April 1. We conclude this from the fact that between August 1, 1962, and March 31, 1963, only nine new permit holders joined the 78 who had received theirs between April and July, 1962. Presumably an equally small proportion of permit holders will be added to the 32 who got theirs prior to July 25, 1963, indicating a drop in store patronage by Eskimo.

Why have Eskimo failed to patronize the Territorial liquor store to the same extent after the waiting period began for beer as they did before? A western Arctic Eskimo could not explain why drinkers didn't order beverages three weeks in advance of delivery. He simply treated the idea as preposterous when he said people want to drink when they want to drink. In other words, for many Eskimo drinking is

TABLE 2. VALUE OF PURCHASES BY ESKIMO AT THE TERRITORIAL LIQUOR STORE BY MONTH, FROM JULY, 1962 TO JULY, 1963

Month	Remarks	Wine and Spirits	Beer	Total
<b>1962</b>				
July.....		\$ 6.00	\$ 952.25	\$ 958.25
August.....		6.00	1,137.50	1,143.50
September.....	Waiting period extended.	6.00	146.25	152.25
October.....		59.05*	234.00*	293.05
November.....	Purchases for Christmas season?	169.35	321.75	491.10
December.....	Purchases for Christmas season?	138.40	308.75	447.15
<b>1963</b>				
January.....		93.00	208.00	301.00
February.....	A murder occurred.	84.20	263.25	347.45
March.....	Effect of murder?	33.70	159.25	192.95
April.....		74.95	165.75	240.70
May.....		36.30	234.00	270.30
June.....		98.60	279.50	378.10
July.....	Summer vacations in coastal camps.	19.35	178.75	198.10
	TOTAL	\$824.90	\$4,589.00	\$5,413.90

\*Note how beer sales dropped after the extension of the waiting period while wine and spirits sales rose.

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highly spontaneous. When it comes to alcoholic beverages, they do not anticipate wanting to drink three weeks hence. Unlike some whites, they do not keep liquor on hand to entertain guests. In fact they do little ceremonial drinking. Such behavior with respect to alcohol cannot be ascribed to an inability to plan or to a reluctance to project wants into the future, for Eskimo who leave town to spend vacations on the land do shop for the future. Even in town, families buy enough groceries at a time to last for several days. Also, some Eskimo have bought alcohol for delivery three weeks hence and continue to do so; undoubtedly more will learn to shop in this fashion, if they wish to drink at home or give a private party.

Table 2 (to which we will refer again) shows that extending the waiting period to beer sales brought a big drop in the amount of money Eskimo spent at the liquor store, especially for beer. The sale of wine and spirits rose somewhat after September, 1962 and for the next eight months continued to remain up, suggesting that the waiting period helped to alter drinking habits slightly. But we need more data to verify this hypothesis.

#### The Eskimo's Mode of Drinking

*note  
to  
slow*  
Eurocanadian power and responsibility dominate Eskimo life in Frobisher Bay. Therefore, Eurocanadians ultimately control the flow of alcohol to Eskimo townsmen. Eurocanadians sell beverages; a federal government administrative officer acts as liquor inspector, and police enforce a Eurocanadian system of legal norms that specify where, how, and to whom alcohol may or may not be sold or given. In fact, those Eskimo who are concerned about drinking hold the Eurocanadian responsible for what they deem to be troubles promoted by alcohol.

Unlike Kwakiutl Indians, Frobisher Bay Eskimo do not drink to assert equality with whites nor do they flaunt scoff-law drinking at them.<sup>6</sup> As a group these Eskimo do not have a seriously antagonistic or competitive relationship with Eurocanadians that would give such drinking point, nor are they hostile toward the police, as natives and Métis in the Mackenzie

<sup>6</sup> Helen Codere, "The Amiable Side of Kwakiutl Life: The Potlatch and the Play Potlatch," *American Anthropologist*, 58 (1956), pp. 334-351; p. 497.

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Valley,<sup>7</sup> though such attitudes may be forming in young men just quitting their teenage years. Alcohol compares with other sources of happiness that Eskimo can tap in Frobisher Bay. Their attitude toward it partakes of the same appreciation for town life that the people reserve for warm houses, movies, bingo games, the security of the Rehabilitation Centre, and the white man's food, especially candy and soda. Eskimo informants put the matter similarly. They say that people drink because it makes them feel good, or to become happy. We conclude that Eskimo drink to realize the effect of alcohol, to promote an optimal degree of intoxication, which instigates good feeling, relaxation, and a sense of gaiety. Some drinkers, though, are spoken of as "never happy when drunk" since they grow angry and violent.

Two views frequently reiterated in Frobisher Bay by administrators ascribe Eskimo drinking to boredom ("the people have little to occupy their free time") and to pressures imposed by town life and culture change, with which people cannot cope adequately and from which they seek escape. We see the Eskimo as far from bored in town and, as we have already said, Eskimo have successfully adjusted to their new life, welcoming rather than deploring many town conditions. Officials also view Eskimo drinking as "impulsive," but that word describes rather than explains; though it well explains why store purchases of beer declined following the three-week rule.

While Eskimo drink to realize happiness, ambivalently they also conceive of alcohol as bad and drunkenness as dangerous. They share the North American's traumatized, puritanical attitudes toward alcohol, attitudes that picture drinking as a special category of behavior because it is fraught with menace or connotes depravity. Extremists, of course, hold that any amount of drinking is sinful—and we met such people in Frobisher Bay—Eurocanadians and

<sup>7</sup> Ronald Cohen, *An Anthropological Survey of Communities in the Mackenzie-Slave Lake Region of Canada*, Department of Northern Affairs and National Resources, Northern Co-ordination and Research Centre, Publication NCRC-62-3 (1962), p. 84; Donald H. J. Clairmont, *Deviance Among Indians and Eskimos in Aklavik, N. W. T.*, Department of Northern Affairs and National Resources, Northern Co-ordination and Research Centre, Publication NCRC-63-9 (1963), p. 54.

Eskimo. More moderate people warn about the danger of alcohol to children, to drivers, and for addiction; they fear lest it unloose latent sexual and aggressive impulses. In some degree, every Eskimo, moderate, social drinker probably carries these attitudes. Presumably, they enable a moderate drinker to regulate the amount he takes at any one time. In the tavern one night a man reported that a friend, a professional hunter, had warned him that after ten years or so of heavy drinking his hands would become too shaky to hold a gun steadily and so he would have to cease hunting. One night in the tavern, an Eskimo relaxed by considerable beer described somebody else as "a very good man," one reason being that he never drank. A stereotype in Eskimo ideology connects drinking with violent aggression. People blame it for a murder that took place in 1963. At a meeting of the Community Council in June, 1962, the Eskimo chairman described liquor and excessive Eskimo drinking as the worst problem confronting Frobisher Bay. (Incidentally, the Council chairman drinks socially. At his 1962 Christmas party, to which he invited many kinsmen and of which we saw movies, he served champagne.)

Unfavorable attitudes toward alcohol, reinforced by fear of arrest and by the undisguised reproaches with which some Eurocanadians greet Eskimo who drink too much, help Eskimo to regulate their own drinking. A frequent drinker, who is also an elected member of the Community Council, told us that he drinks only until he is a little happy, but doesn't go beyond that. He added that drinking beyond a safe point results in violence. A western Arctic Eskimo said he directly encourages more men to adopt such self-regulation. People in Frobisher Bay, he explained, have not had a chance to observe the style of drinking that goes on "at the Lord Elgin" (a popular hotel in Ottawa) but only the kind that construction workers do.

As part of Eskimo's more general readiness to allocate responsibility to Eurocanadians, most Eskimo quite willingly allow Eurocanadians to regulate their drinking. They accept the waiter's refusal to serve them with more beer once they are already intoxicated. No Eskimo openly disapproved of the three-week waiting period for beer, and some drinkers approved it. A few persons have even asked

the welfare officer to inform the tavern owner not to serve them when they go there. One Eskimo employee allows his white supervisor to give him a note to the innkeeper on nights when he need not go on duty. There are a few Eskimo who voluntarily appealed to the court for interdiction.

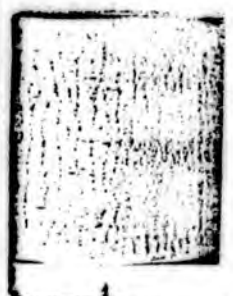
#### Sources of Alcohol

Eskimo drinkers secure practically all their alcoholic beverages from two local outlets, the government-owned liquor store—from which no beverage moves except to a permit holder—and the government-licensed tavern.

Despite organized opposition by a pressure group, in which a few Eskimo aligned themselves with a few Eurocanadians, the Territorial liquor store began business in September, 1961, serving only permit holders.<sup>8</sup> Most Eskimo permit holders during the period under survey have been mature men. (Table 3) Mature men and heads of families are in the best position to afford alcoholic beverages, for they hold the steady jobs. Such data support the interpretation that alcoholic drinking in Frobisher Bay is not primarily motivated by deficiency needs, like stress induced through drastic culture change.

Most permit holders actively use them. Seventy-two out of 87 used their 1962-1963 permits, and all 32 who received 1963-1964 permits by July 25, 1963, had used theirs by that date. Mostly they use their permits to buy beer. The strategic significance of extending the three-week waiting period to beer may once more be gauged from the fact that only 30, or 42 percent, of the 72 Eskimo who used their permits in

<sup>8</sup> Volume of sales by the liquor store favors non-Eskimo. Out of 2,218 dozen cans of beer sold from January to July, 1963, 1,760 dozen cans (or 79 percent of the total) went to non-Eskimo and 458 to Eskimo, although non-Eskimo adults don't exceed Eskimo adults in the town population by any such proportion. Undoubtedly non-Eskimo bought far more wines and especially spirits than Eskimo, who rarely buy such alcoholic beverages. Total beverage sales in Frobisher Bay amounted to \$180,735.85 in 1962-63, according to the *Annual Report, Commissioner of the Northwest Territories, 1962-63*, p. 19. Between July, 1962, and July, 1963, 74 Eskimo permit holders spent a total of \$5,413.90 at the liquor store, an average of \$73.16 each. Of course, many drinkers undoubtedly frequented the tavern and spent additional money, of which we have no record.



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TABLE 3. AGE DISTRIBUTION OF ESKIMO WHO BOUGHT ALCOHOLIC BEVERAGES FROM GOVERNMENT LIQUOR STORE (APRIL 1, 1962 TO JULY, 1963)

Age Category	Number
20-24	11
25-29	15
30-34	17
35-39	8
40-44	11
45-49	4
50-54	3
55-59	1
Unknown	4
TOTAL	74

\*Twenty-one is the minimum age for securing a permit.

1962-63 bought any wine and spirits (and hence waited three weeks to pick up their paid-for orders); 71 out of the 72 permit users bought some beer. Up to July 25, 1963, only 13 of 32 Eskimo with permits (about the same proportion) bought wine and spirits and 30 bought some beer. However, the volume of wine and spirits sold is over what it was before the waiting period began for beer, amounting to 405, 460, 140, 425, 190, 425, and 80 ounces in the first seven months of 1963 respectively.

Table 2 indicates how Eskimo liquor buying fluctuates from month to month and, apparently, from season to season. We are not sure why, but one reason may be that Eskimo lack a firm pattern of social drinking, which would keep fairly steady the amount and type of alcoholic beverages consumed from month to month. We list other possible reasons under the column headed "Remarks" but cannot at this time test those hunches with concrete data. One hypothesis we did manage partly to test. We reasoned that November buying was a consequence of the approaching holiday season. If this were true, then heavy sales would cluster toward the end of that month. Available data for wines and spirits bear this out. Mainly, though, it turns out that a few sophisticated individuals (who undoubtedly had Christmas in mind) did much of the late November wine and spirit buying. The Community Council chairman, for example, spent \$20.00 on 4 bottles of champagne and another \$46.00 for assorted wine, whiskey, rum, and liquor. We lack precise enough data to test the hypothesis with beer buying. HI SES → HI CONS. (8)

NOTE?

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STING  
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IN AGE.

TABLE 4. AMOUNTS SPENT AT THE TERRITORY LIQUOR STORE BY ESKIMO PURCHASERS, FROM JANUARY 1962 TO JULY, 1963

Number of Purchasers	Total Amount Spent
1	\$275-\$299
1	250-274
1	225-249
4	200-224
2	175-199
4	150-174
4	125-149
5	100-124
11	75-99
7	50-74
19	25-49
19	0-24
74	

Table 4 shows considerable variation among the liquor purchasers. Some men spent as little as \$6.50 in the 13-month period; one went as high as \$299.60 in his purchases. Over half the purchasers spent less than \$50.00.

If we categorize the Eskimo permit users as either high or low purchasers, and define a high purchaser as someone who spent above the average (\$73.16), then we count 29 high purchasers. We can match these with 29 individuals selected simply because they fall at the opposite end of the scale, having spent the smallest amounts at the liquor store. The two categories diverge in certain social characteristics as Table 5 demonstrates. High purchasers who may live in Apex Hill, Ikhaluit, or at the airbase, are most often steadily employed, wage-earning heads of families in their 30's and early 40's. The Eskimo community's leaders are well represented among high purchasers. Generalizing, we can say that the high purchasers are men who have closely assimilated town life. Tutelage has made them familiar with the liquor store and even with deferred buying of alcohol, for note that in this category only eight permit holders failed to renew their permits in 1963, after the waiting period had begun for beer, while low purchasers failed to renew their permits. High purchasers show somewhat better ability to drink and yet stay out of trouble. Between late 1961 and 1963 they appeared in court less frequently than low purchasers. Although drinking undoubtedly encourages offenses against the law (specifically against the Liquor Ordinance), the 14 high

TABLE 5. COMPARISON BETWEEN 29 "HIGH" AND 29 "LOW" ESKIMO PURCHASERS AT THE TERRITORIAL LIQUOR STORE FROM JULY, 1962 TO JULY, 1963\*

	High Purchasers	Low Purchasers
<i>Status</i>		
Heads of families (male).....	27	19
Unmarried men.....	1	8
Women.....	—	—
Other.....	1	2
<i>Average age</i> .....	36	29
<i>Employment</i>		
Steadily employed.....	20	8
Fairly steadily employed.....	1	2
Rarely employed.....	5	10
No employment record.....	3	5
Rehabilitants.....	—	2
Other.....	—	2
<i>Social assistance</i>		
Received welfare during 7 sample months in 1962-1963.....	3	7
Purchased liquor during months they received welfare payments.....	2	—
<i>Liquor permit holders</i>		
1962-1963.....	29	27
1963-1964.....	21	7
<i>Law offenders (between Dec., 1961 and August, 1963)</i>		
Under Liquor Ordinance.....	12**	10***
Under Criminal Code.....	6**	6***
No Offenses.....	14	9
<i>Neighborhood of residence</i>		
Apex Hill.....	12	13
Airbase.....	3	—
Ikhiluit.....	13	15
Other.....	1	1

\*High purchasers are men who spent more than the average of \$73.18 in the 13-month period; they spent from \$71 to \$300. Low purchasers are men who spent the smallest amounts, from \$9 to \$38.  
 \*\*Three people were charged under both the Liquor Ordinance and the Criminal Code.  
 \*\*\*Five people were charged under both the Liquor Ordinance and the Criminal Code.

purchasers who have no offenses recorded against them demonstrate that Eskimo can drink, and even fairly regularly, without committing offenses that attract police attention.

Low purchasers manifest greater heterogeneity. Again heads of families predominate but the category includes more younger, unmarried men. Low purchasers have spottier employment records and enjoy steady employment less frequently; as a result they also earn less wages. Low purchasers include two rehabilitants and over twice as many men who received social assistance during seven sample months than appear among high spenders.

Only one low purchaser ranks as a leader, being an elected member of the Community Council from Ikhiluit.

Judging from these data (they refer only to purchases at the liquor store and don't take account of liquor consumed at the tavern), alcohol consumption correlates directly with economic and social status: it is one mark of a full-fledged Eskimo townsman. The data offer no basis for ascribing most drinking to deficiency motives. We would expect that as employment opportunities and standard of living increase, so will liquor consumption. After all, the same thing has happened in Europe and among other Americans in Canada and the United States.

Many high purchasers at the liquor store also frequent the Rustic Room tavern, with at least one notable exception: the most sophisticated men in the community (for example, those who bought Christmas liquor), who also happen to be high store purchasers, don't regularly frequent the tavern. Also, whereas no woman holds a permit to buy at the store, women of all ages visit the tavern, though always there are many fewer women present than men. We must also add that only one member of the Church Council, holds a liquor permit; he is one of the high purchasers, but drinks socially and in moderation. The Church Council is an elite group. We never saw a known Church Council member in the Rustic Room.

We counted 16 Eskimo men and two women as people whom we identified as steady tavern-goers. All the men are family heads. The women in question regularly accompany their husbands. Most of the men in this category also hold or held liquor permits, only two failed to renew in 1963 after the waiting period had begun for beer. Men who frequently avail themselves of one liquor outlet also steadily utilize the other, 12 of the 16 steady taverngoers proving to be high purchasers at the liquor store. As we would expect, since a secure income alone can support steady patronage of both liquor outlets, steady tavern drinkers who are men mostly hold steady jobs. One steady male taverngoer has no regular source of income and another lives in the Rehabilitation Centre, where he earns auxiliary income through

\* Ronald Cohen, *op. cit.*, p. 100, predicts the same.

carving on his own account. Two of the steady male tavern visitors and one woman are elected members of the Community Council. Between December, 1961 and August, 1963, out of 18 steady taverngoers, nine have been charged under the Liquor Ordinance; four have been charged under the Criminal Code; eight have not been charged with any offense. All offenders and nonoffenders total over 18 because three persons have been charged both with offenses under the Liquor Ordinance and under the Criminal Code.

Among 28 men and women whom we have seen drinking in the Rustic Room, but whom we would call occasional rather than steady taverngoers, we note six rehabilitants (including three girls over 21) and a large proportion of young men and women. About 15 women occasionally visited the tavern.

We have already noted that some but by no means all heavy spenders at the liquor store and steady taverngoers have committed offenses for which they were apprehended by police.

We counted 29 heavy purchasers and an additional six steady taverngoers, making 35 so-called regular Eskimo drinkers. Police arrested 17 of these at least once in the 21 months from December, 1961, to August 24, 1963. The other 18 show no arrest record in that period.

Regular drinkers in fact furnish only a small part of the trouble with which police cope. Police apprehended a total of 97 persons in those 21 months, 17 of them being persons categorized by us in 1963 as regular drinkers. By our criteria, 78 of the 97 persons arrested are occasional drinkers. It is interesting that practically no non-drinkers got into trouble, but since most arrests were for offenses coming under the Liquor Ordinance (Table 1), this discovery is not really very significant.

In Aklavik, Clairmont<sup>10</sup> sees "excessive drinking" to be "largely a problem among the younger settlement natives," i.e., those between 16 and 20. This finding supports his hypothesis that excessive drinking in Aklavik forms one delinquent response to strain, that age category, in Clairmont's opinion, being especially highly stressed. We cannot readily use his largely unspecified criteria and identify "excessive" drinkers in Frobisher Bay, but if

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TABLE 6. AGE DISTRIBUTION AND ARREST RECORDS OF REGULAR DRINKERS\*

Age Category	Number of Regular Drinkers	Number of Regulars Arrested Between December, 1961 and August 24, 1963
20-24	1	1
25-29	6	1
30-34	8	4
35-39	7	6
40-44	6	2
45-49	3	3
50-54	3	—
Over 55	1	—
TOTAL	35	17

\*Regular drinkers are defined as those who spent more than the average at the liquor store and/or visited the tavern frequently.

we take the regular drinkers of legal age, they do not mostly come from the younger age levels, as Clairmont also finds (Table 6). Unfortunately we also cannot say much about illicit drinking by young people under 20, though undoubtedly it occurs and often escapes police attention. Our records show only one Eskimo of both sexes under 20 to have been arrested for any cause in 21 months from December, 1961 to August 25, 1963. The eight account for about eight percent of all persons arrested for any cause in that interval. Seven of the eight persons were arrested for liquor offenses. If we take arrests rather than persons arrested, then 14 out of a total of 204 arrested persons under 20—that is, seven percent. In Aklavik, 22 percent of all men arrested for liquor offenses only in the 11 months from August, 1960 to June, 1961 were under 20. While the figures are not precisely comparable, it appears more than likely that police in Aklavik, for whatever reason, apprehend youthful drinking offenders more often than police in Frobisher Bay. One plausible inference is that younger people in the longer settled western Arctic town experience more difficulty with respect to illicit drinking than do their age mates in the newer town of Frobisher Bay. They may also do more drinking, perhaps as a result of being more highly stressed, as Clairmont assumes.

In Frobisher Bay, as older people learned to drink in ways that render them less likely to be picked up by the police for liquor offenses, younger people have come to form a larger proportion of the people attracting police attention.

<sup>10</sup> Donald H. J. Clairmont, *op. cit.*, p. 58.

10

liquor and other offenses. From constituting six percent of all offenders in the 13 months from December, 1961 to December, 1962, offenders under 20 have mounted to 12 percent in the eight months from January to August 25, 1963. However, in absolute numbers there has been no increase in the number of offenders in this age group.

**CONCLUSIONS**

Although our data fail to confirm allegations that Frobisher Bay is a highly disorganized community, a number of administrators locally and in Ottawa, as well as other commentators noted in the Canadian press, still view the community as manifesting serious alcohol and other problems. Apprehension concerning

drinking, we have shown, exists in Eskimo themselves and constitutes one factor that helps them to control their alcoholic intake. From exuberant and relatively unpatterned drinking following the legalization of alcoholic sales to Eskimo, the people have adopted a relatively rational use of alcohol, aided by administrative regulations. The regular Eskimo drinkers are among the most stable and sophisticated element of the town's native population, being regular jobholders and in other respects full-fledged townsmen. They have learned to drink and to stay out of trouble. We have indications that the rising generation of adults experiences somewhat greater trouble with respect to drinking. How the next generation of townsmen will adjust to alcohol remains to be seen.

**PERCEPTIONS REGARDING VALUES AND LEGITIMATE OPPORTUNITIES AND NORMS**

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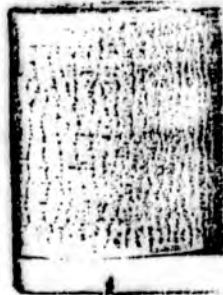
Many of our larger urban centers have pointed out causal theories of delinquent behavior are

\* The total project was supported by a grant from the Otonari Research Project, Reckless.

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14 Oct '85

**KAVA IN THE NORTH.**

**A study of kava in Arnhem Land  
Aboriginal Communities**

**Kerryn Alexander**

**Australian National University  
North Australia Research Unit**

**Monograph**

**Darwin 1985**

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The research upon which this monograph is based and its preparation were undertaken in the course of my duties as Research Officer with the Drug and Alcohol Bureau, Northern Territory Department of Health. Field work was undertaken in 1984 and 1985 in coastal communities in East Arnhem Land of the Northern Territory.

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## Introduction

A refreshing astringent drink which produces nothing more than a tingling sensation in the mucous membranes of the mouth and a short-lived numbness of the tongue (Holmes, 1979a, 107).

Kava has medicinal qualities of not a little power. Drunk to excess it acts like opium, and the habit once formed cannot easily be broken....The habitual kava drinker may be recognised by his fishy-looking eyes and the scaly appearance of his skin (Adams, 1890, 117-20).

Since early European travellers first came into contact with kava, there have been major discrepancies in descriptions of the kava drinking experience. Reported effects range from references to kava as a powerful habit forming drug, to a substance that produces a mild but pleasant state of tranquillity. This controversy continues to exist with the current use of kava in Arnhem Land Aboriginal Communities. Some people associated with these communities support and encourage kava use, while others are totally opposed to it. Many uninformed rumours are circulating concerning the physical properties, medical effects and contemporary uses of kava in Arnhem Land.

This paper provides factual information on kava's chemical and pharmacological properties, refers to its use in the South Pacific and outlines factors concerning its current use in Arnhem Land Aboriginal communities.

## WHAT IS KAVA?

### Physical description

Kava is prepared from the plant Piper methysticum forst, a tropical shrub of the family Piperacea (Pepper). The generic name Piper comes from the Latin for pepper and the species name methysticum from a Greek word meaning intoxicant. The plant has thus become known as the intoxicating pepper (Shulgin, 1973).

Piper methysticum grows naturally throughout Melanesia, Polynesia and Micronesia and is cultivated for domestic use on many islands in this region (Hansel, 1968). Its characteristic features are long stemmed, heart shaped leaves, knotty branches and small flowers (Gatty, 1956). The part used to make kava is generally the rhizome (the bulky root stock) or the fine root system, with in some cases, the base of the stem being used. Plates 1 and 2 show young plants, plate 3 an older larger plant and plate 4 the roots of Piper methysticum.

### Preparation of the kava beverage

The methods for preparing the kava plant for drinking fall into two main categories.

#### Fresh root methods

The methods traditionally used throughout the Pacific involve the chewing, grating or pounding of the fresh root until fine and fibrous. The chewed or shredded root is then soaked in water, strained and drunk.

#### Dried root methods

The root or other plant matter to be used is dried and pulverised. The powder is then wrapped in cloth and infused in water, much like a giant tea bag. This is the method of preparation most widely practised today. In several countries, the powder is produced commercially and sold in small bags.

With both methods, the beverage is usually mixed in a large bowl and shared by a group of drinkers using a single cup. The chewed, fresh kava preparation is reported to be far more potent than the grated, pounded or dried kava. The increased potency has been attributed to a chemical transformation induced by the action of saliva on the plant matter.



Plate 1: Young Piper methysticum plant



Plate 2: Young kava plants in a village garden



Plate 3: Full grown kava plant



Plate 4: Roots of kava for sale in village market

This has not, however, been scientifically proven (Gregory et al., 1981). Other factors affecting the strength or potency of the kava beverage are outlined below.

The variety of the plant used. A number of varieties of Piper methysticum have been identified and are said to vary widely in their pharmacological characteristics. Vanuatu kava is reported to have the highest concentration of active ingredients of all varieties so far tested (Ellis, 1984a).

The portion of the plant used. Fijian kava, the type frequently used in Arnhem Land, has different grades depending on the part of the plant used. Kasa is the lowest grade, made from the plant stem. Lawena is prepared from the rhizome (main part of the root). Waka is the strongest grade made from the fine root system and the type most frequently used in Arnhem Land (Fiji Markets, Sydney, pers. comm.).

The soil in which the plant is grown. Active principles in any plant vary enormously with respect to the soil in which they are grown (Efron et al., 1979).

Degree of dilution of beverage. The amount of kava used per unit of water varies considerably from place to place. In Fiji, the amount of powdered kava used to produce a bowl of many servings is less than what would be used of the Vanuatu fresh root to produce one to two cups to be consumed by a single individual (Holmes, 1979b).

The pattern of use. Kava drinking may or may not accompany the consumption of food. It may be taken at different times of the day and in different quantities. All these factors affect its absorption into the body and its resultant effects.

The cultural context and expectation effects on the drinker. The cultural context, religious and secular sanctions and the behaviour of other kava drinkers all influence the amount of kava taken by a given individual and the way that it will affect him or her. Those who expect or desire intoxicating effects are likely to experience them (Holmes, 1979b).

These variables make it extremely difficult to establish a 'usual' or 'normal' level at which kava is consumed. As discussed below, the way kava is used by a community has been traditionally controlled by the cultural context in which it has evolved.

#### Chemical and pharmacological properties

Several investigations of the chemical and pharmacological properties of kava have been conducted (Hansel, 1968; Shulgin, 1973; Klohs, 1979; Meyer, 1979). The active chemical constituents have been determined as a series of approximately twelve -pyrones, which are referred to as kava pyrones or kava lactones. The chemical structure of the kava pyrones is described by Shulgin (1973) and Klohs (1979). All the pyrones are physiologically active, their differences being quantitative rather than qualitative in nature.

Extensive animal studies have been conducted to determine the pharmacological properties of both the isolated chemicals, and the total extract of Piper methysticum (Meyer, 1979; Singh, 1983). The results of these studies are confirmed when the extracted chemical compounds are given to humans (Pfeiffer et al., 1979). The major pharmacological actions of kava are as follows:

mild, centrally acting relaxant properties which induce generalised muscle relaxation and ultimately a deep natural sleep, and

local anaesthetic properties which are experienced as a numbing of the mucous membranes of the mouth and tongue when the beverage is drunk.

Despite these consistent findings, little agreement exists as to the pharmacological classification of kava. Although its actions are characteristic of a sedative, its use is social rather than individual and it leads to conviviality rather than to escape (Shulgin, 1973). It has been concluded, however, that kava's sedative/relaxant properties are relatively mild - 'compared to the modern synthetic central relaxants, all of the kava congeners (active chemical constituents) are relatively inactive' (Pfeiffer et al., 1979, 160).

It should be noted that no pharmacological studies have been published which assess the effects of the widely used powdered kava preparation on humans.

Both medical and anecdotal reports suggest that frequent and heavy kava consumption may cause further physiological effects. References to dry or flaky skin in regular kava drinkers appear throughout the literature (Gatty, 1956; Finau et al., 1982). The most thorough description of a kava caused skin condition, termed kani, is documented in the Fiji Medical

Journal (Frater, 1976). Kani is characterised by a pattern of light and dark bands on the skin, the light bands being smooth and the dark bands, rough and scaly. The following points are relevant to the expression of the condition:

regular (almost daily) drinking of kava is necessary before it appears, the period varying from months to a year or more;

kani is more readily seen in dry weather than when the humidity is high;

it is most likely that kani results from a vitamin B deficiency attributed to the influence of kava on body metabolism, and

the condition is cured when kava drinking is reduced.

A discolouration, or yellowing of the skin, is also associated with the consumption of large quantities of fresh kava (Pfeiffer *et al.*, 1979). Two yellow pigment materials have been isolated from the plant which provide an explanation for this phenomenon (Shulgin, 1973).

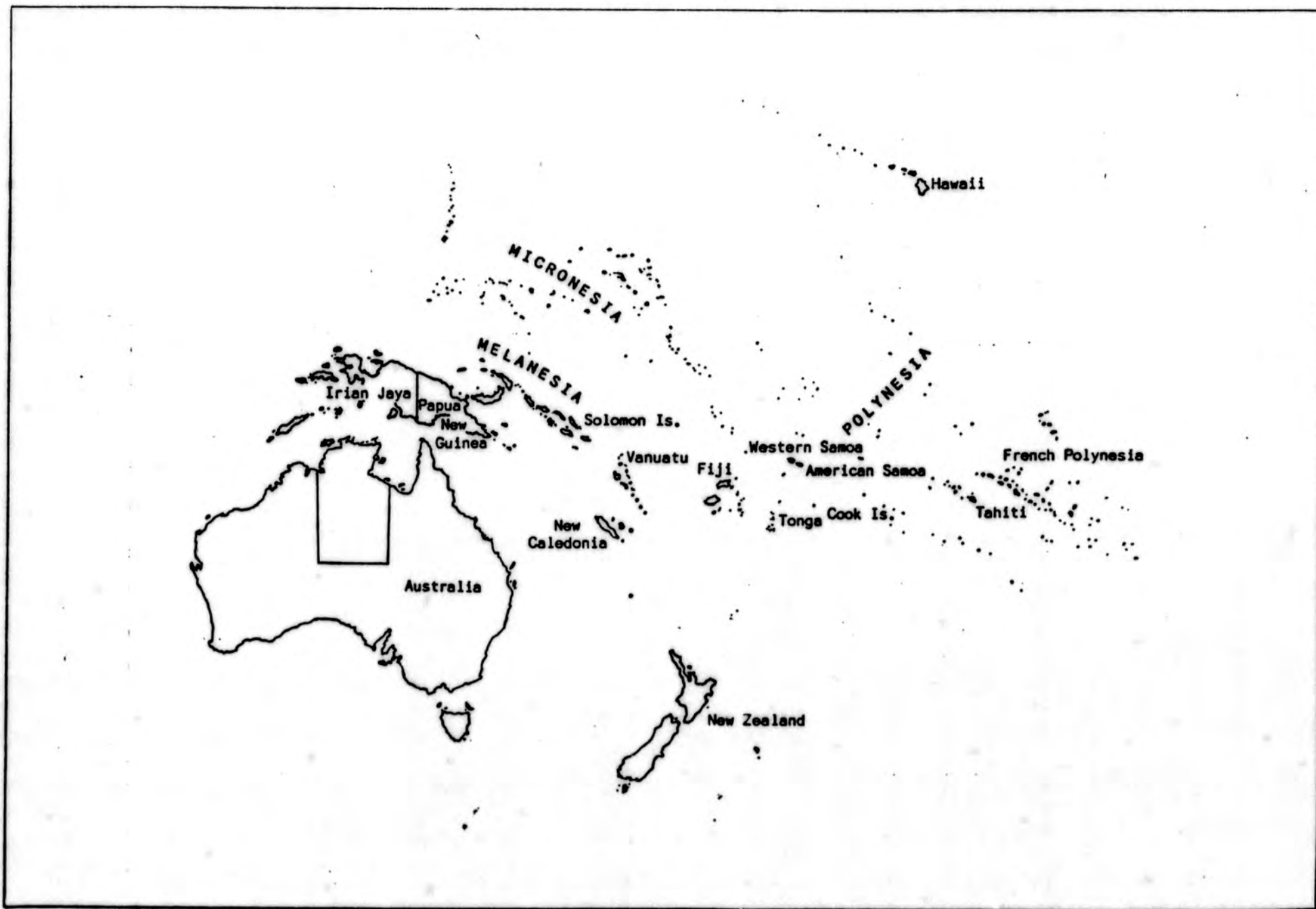
Reports from early missionaries and explorers in the Pacific maintained that heavy consumption of fresh kava paralysed the legs, making it difficult to walk (Holmes, 1979b). Similarly, recent animal studies indicate that large doses of the chemical compounds isolated from kava, produce ataxia and ascending paralysis, followed by complete recovery (Meyer, 1979). A paralysing effect has not, however, been adequately demonstrated in humans drinking the kava beverage. In fact, any numbness of the legs has been accounted for by the associated habit of sitting cross-legged during long kava drinking sessions (Shulgin, 1973).

Owing to its chemical and pharmacological properties, kava has numerous medicinal uses, including analgesic, anticonvulsant, fungicidal, antiseptic and diuretic properties. It has been used as a traditional medicine in many parts of the Pacific for centuries. The European pharmaceutical industry also has a steady demand for kava. For example, it is used in preparations which have been produced and sold in Europe for about 20 years, such as Kavaise for infections of the urogenital system (Ellis, 1984).

#### HOW KAVA IS USED IN THE SOUTH PACIFIC

##### Extent of kava use

Two indigenous ethnic groups occupy the islands of the Pacific. The dark skinned Melanesians inhabit the area bounded to the North by New Guinea and the Solomon Islands, on the east



Map 1: The Pacific Regions in which kava has traditionally been used

by Vanuatu and Fiji and to the south by New Zealand, whose population, however, does not belong to this group. The second group is that of the Polynesians and Micronesians with lighter skins. They inhabit the islands to the east and north of those mentioned above and others scattered in the Pacific including Samoa, Tonga and Hawaii. Although the kava plant exists throughout these regions, its use as a beverage is most well documented in Fiji, Samoa, Tonga and Vanuatu where it is variously known as kava, kawa, kava-kava, ava and yagona (Lewin, 1931). Map 1 illustrates the Pacific region in which kava has been traditionally used.

The custom of drinking kava has been practised in the Pacific Islands for many centuries. It is an integral part of traditional and contemporary life throughout the Pacific, although regional differences occur in the style of preparation, sanctions surrounding its use and other culturally based factors.

Kava is used in ceremonies, to welcome visitors, at formal gatherings, initiation or completion of work, validation of titles, celebrations of marriages, births and deaths, to cure illnesses and remove curses, and as a means of making contact with the supernatural, in fact in almost all phases of life (Singh, 1983).

#### Traditional use of kava

The importance of kava in the traditional life of the Melanesians and Polynesians is reported throughout the anthropological literature (Efron *et al.*, 1979; Lewin, 1931). Its cultural status and meaning are explained by many of the historical stories, myths and legends of the people.

These stories also serve to place sanctions on its use. For example, a Samoan myth describes how kava was given to people by the gods. This story presents rules for the correct ceremony, seating arrangements, taking of food and reverence required of children when kava is used. These traditional kava drinking practices are intimately related to indigenous religious practices and village social and political organisation in Samoa (Holmes, 1979a; Brown, 1984).

A similar legend outlines the first appearance of kava in Tonga. This story also emphasizes the important traditional and cultural role of kava in Tongan society (Gatty, 1956).

The way in which kava use is traditionally integrated into the lives of the Pacific Islanders is well illustrated by its use in Tanna, Vanuatu (Gregory *et al.*, 1981). On Tanna, fresh kava is consumed daily at sunset by almost all the adult men. Strict rules govern the places where kava may be consumed, the exclusion of women and children, the quantity of kava consumed, and behaviour following kava consumption - 'kava time'.

The following examples illustrate some of the ways in which kava use is linked to a wide range of Tannese activities and behaviour, both religious and secular.

Sanctions against women drinking kava or even witnessing a kava ceremony contribute to the delineation of male/female roles.

The congregation of men at the nakamal (kava meeting place) at dusk is an important time to meet and exchange news.

Once prepared and drunk the 'kava time' is a time for quiet and solitude. The kava facilitates meditation, problem solving and communication with the gods. In this way kava is said to be 'like a prayer'.

#### Contemporary use of kava

In recent times, kava use in the Pacific has assumed a wider and more secular role alongside its traditional and ceremonial uses, particularly in urban areas. In many places it is accepted as a social activity in much the same way as drinking tea or coffee in our society. The extent of the social use of kava is illustrated by the following examples (Holmes, 1979a; Ellis, 1984a):

urban centre in Fiji, Samoa and Vanuatu have kava clubs or saloons where kava may be drunk during a work break or as a social activity at the end of the day;

government offices are reported to have kava prepared for their employees each morning; and

the processed powdered form of kava is commercially available in most towns, and is widely used by the local people.

Despite the widespread use of kava throughout Pacific towns and villages, there is surprisingly little reference in any of the available literature to negative effects of kava drinking.

#### The meaning of kava

Kava has become a symbol of traditional culture and independence in Pacific countries such as Tonga, Samoa and Vanuatu which are struggling to maintain their identity in the face of increasing westernisation (Holmes, 1979a; Gajdusek, 1979). This contemporary meaning associated with kava drinking has several elements. Historically, kava has been associated with a reluctance to become involved in mission or government

instigated activities. The missions and colonial governments attempted to prohibit kava use because of its important political and religious role in indigenous society. As a consequence kava drinking boomed. In Tongariki, Vanuatu, for example, kava drinking reached faddish proportions in terms of the number of drinkers and frequency of their use of kava. This anarchical use of the beverage without respect for traditional sanctions has been interpreted as a direct reaction against the power of the missions (Gregory *et al.*, 1981; Gajdusek, 1979). A similar cult emerged on Tanna, Vanuatu. There, a cult leader, Jon Frum, advocated a return to the villages, the use of kava, and other traditional practices which had been outlawed by the missions. The popularity of the Jon Frum cult led to the rapid widespread use of kava drinking outside of prescribed customs (Gregory *et al.*, 1981; Guart, 1956).

More recently, kava use has become a wider symbol of Pacific identity. It can be conceived of as being part of the 'Melanesian Renaissance', a term used to refer to the recent encouraging by Pacific nations of their traditional ways of life such as ceremonies, dances and songs, in which kava plays a central role (Keith-Ried, 1984). Kava use is now sanctioned by both churches and governments as an important and worthwhile practice.

#### HOW IS KAVA USED IN ARNHAM LAND?

##### The introduction of kava

Kava was introduced to Arnhem Land via the Yirrkala community, near Nhulunbuy, in early 1982. During late 1981 and early 1982, the Uniting Church Aboriginal Advisory and Development Services (AADS) Community Worker at Yirrkala, a Fijian, took a group of leading Yirrkala men to Fiji to observe customary life and village development. These men saw kava being used socially and were also invited to join in village discussions involving the ceremonial use of kava. The Yirrkala men were impressed by the way in which kava was used in Fiji and brought an initial supply back to Australia. They then arranged to obtain supplies of kava so they could use it regularly. During late 1982, the Warruwi (Goulburn Island) AADS Community Worker, also a Fijian, took some Warruwi men to Yirrkala to discuss the organisation of their Homeland Resource Centre. The men were invited to join in discussions over the drinking of kava. They returned impressed and requested their community worker to arrange supplies of kava for Warruwi (Downing, 1985; Hoyles, 1982). The use of kava has now spread to most other Arnhem Land communities. It should be noted that, although the presence of Fijian and other Pacific Islander community workers facilitated the introduction of kava into Arnhem Land, it was the Aboriginal people themselves who requested and encouraged its use.

There are a number of reasons why kava use has spread so quickly through Arnhem Land:

some Aboriginal and non-Aboriginal people involved with the communities have encouraged the use of kava as a substitute for alcohol;

the kava bowl is seen as an excellent focal point around which discussions can take place. This is particularly relevant as group meetings are an important means of information sharing and decision making in Aboriginal communities and

kava drinking provides an opportunity for fellowship of a type similar to sharing a carton of beer or flagon of wine. This is particularly significant in those communities where alcohol is prohibited, as groups seeking the fellowship associated with alcohol consumption were previously obliged to visit hotels situated some considerable distance from the community (Hoyles, 1982).

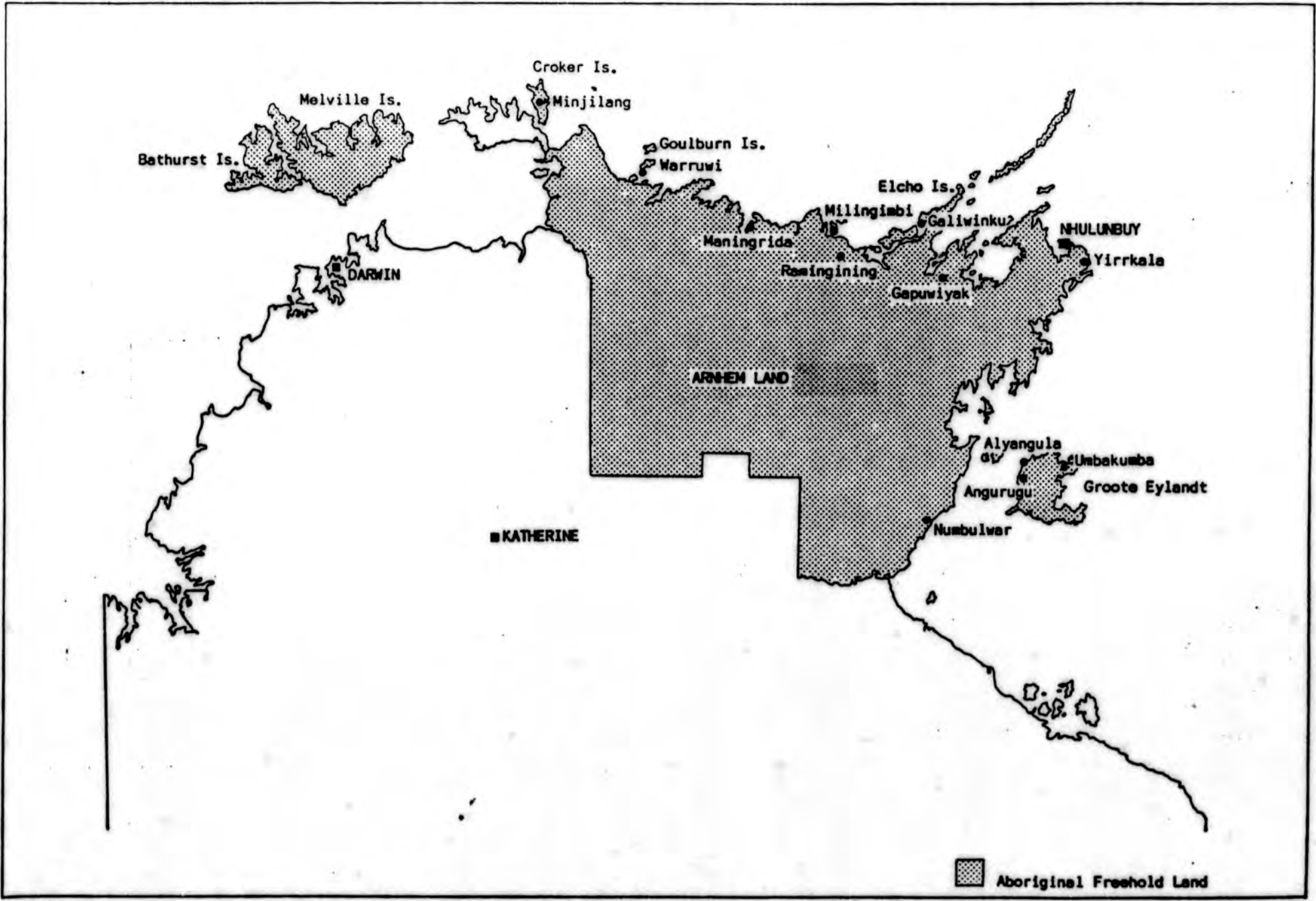
#### Geographic extent of kava use

Kava use in Northern Territory Aboriginal communities is currently confined to Arnhem Land. Its use extends as far west as Minjilang (Croker Island), in the communities across the north coast - Waruwi (Goulburn Island), Maningrida, Milingimbi, Ramingining, Galiwin'ku (Elcho Island), Gapuwiyak (Lake Evella), Nhulunbuy and Yirrkala and, to a limited extent, to the east at Numbulwar and communities on Groote Eylandt. Some of the inland and coastal outstations also receive kava supplies. Map 2 illustrates the Arnhem Land region where kava is currently used.

So far, use of kava does not appear to have extended to Aboriginal communities outside this region in the Northern Territory. It is used, however, by Aboriginal and Pacific Islander groups and others in Darwin.

#### The supply of kava to Arnhem Land

Commercially produced, powdered kava is legally imported into Australia from Pacific Island countries such as Fiji and Tonga. Most kava supplies to Arnhem Land follow the same route: supplies are ordered from importers based in Sydney, and the consignments are then sent to Darwin where they are further distributed to the communities by aircraft or barge. Originally, all kava supplies to Arnhem Land were ordered and distributed through the Yirrkala Homeland Resource Centre. Most communities now purchase their own supplies.



Map 2: The Arnhem Land Region where kava is currently used

Table 1 presents information about the quantities of kava supplied to individual Aboriginal communities during the early part of 1985. This information was obtained from some of the suppliers and air charter companies which carry kava into Darwin and the communities. It does not include all the kava going into the communities as it is known that some is ordered from other suppliers, and smaller quantities are carried privately by individuals. It does give, however, a conservative indication of the amount of kava used in each community.

Table 1

Kava supplies to Aboriginal communities,  
January to May 1985

Community	Time period	Quantity (kg)
Minjilang (Croker Island)	11.1.85 - 27.4.85	140
Warruwi (Goulburn Island)	9.1.85 - 23.4.85	690
Maningrida	20.3.85 - 15.5.85	108
Milingimbi	9.1.85 - 23.4.85	1554
Ramingining	3.1.85 - 19.4.85	840
Gapuwiyak (Lake Evella)	3.1.85 - 19.4.85	820
Galiwin'ku (Elcho Island)	3.1.85 - 19.4.85	865
*Yirrkala	10.4.85 - 8.5.85	1200
*Darwin	6.2.85 - 13.5.85	810

\*It is understood that these supplies are further distributed.

It appears that kava is not supplied directly to Groote Eylandt and the outstation settlements. Kava supplies to these areas are purchased from nearby communities. It is certain that some of the very large quantities of kava supplied to Yirrkala are distributed elsewhere.

#### Current patterns of kava use

The type of kava used in Arnhem Land is the commercially produced, powdered form, from the South Pacific. In the Aboriginal communities, the beverage is prepared by wrapping the powder in a piece of cloth, immersing it in a large bowl or other container filled with water and squeezing it with the hands (plates 5 and 6). The drinkers sit around the bowl and share the beverage from a single cup (plates 7 and 8).



Plate 5: Barayuwa Mununggurr and Alfred Gondarra preparing kava powder for drinking

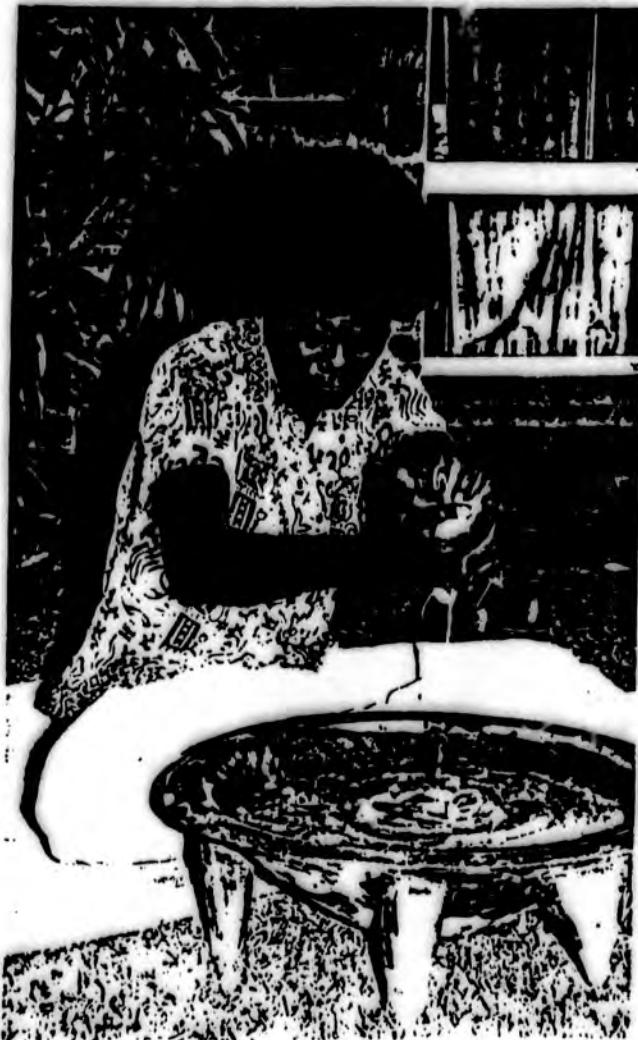


Plate 6:  
Barayuwa  
Mununggurr  
preparing  
kava powder  
for drink-  
ing



Plates 7 and 8: Barayuwa Mununggurr and Alfred Gondarra drinking kava



The atmosphere of the kava drinking group varies considerably depending on the people involved. At Yirrkala, for example, the Fijian Community Worker attempts to ensure that at least some traditional procedures are followed when kava is drunk. Here the traditional Fijian tanoa (wooden kava bowl) and coconut shell cups are used. The drinking group adheres to the Fijian clapping ceremony as the kava cup is passed around. Reports from other communities indicate that many kava drinking practices are far removed from any Pacific Island traditions. For example, kava is mixed in any available container such as an old bucket or baby bath, there are no ceremonial procedures and alcohol or pills are sometimes added to the beverage.

Several sources of information provide an indication of the current patterns of kava use in Arnhem Land (Downing, 1985; Hoyles, 1982; Cawte, 1985a and b; pers. obs.). During 1982, kava use was virtually limited to Yirrkala and Waruwu. At this time, kava drinking sessions at Yirrkala commenced at around 3.00pm each day with two or three people and grew to a group of about 20 by midnight. These kava drinking parties were clearly identified by those involved as a means of substituting alcohol with a 'harmless drink' which makes the drinker 'feel good' and which 'promotes fellowship'. The kava drinking pattern which has been established is not the traditional ceremonial experience found in the Pacific but of a nature similar to the social kava drinking prevalent in many Pacific Island towns. Since 1982, kava use in Arnhem Land has accelerated dramatically. In most communities, people of both sexes and various age groups sit together around kava bowls each evening. Recent reports from Department of Health staff, Department of Aboriginal Affairs staff, Uniting Church workers (both Aboriginal and non-Aboriginal) and community residents (both Aboriginal and non-Aboriginal) reveal the following patterns of kava use:

most adult men in the coastal Arnhem Land communities mentioned above drink kava during the evenings. Some women and children also drink kava;

a small group of people in most of these communities drink kava daily, during most of their waking hours, to the exclusion of any other activities;

many business discussions and other meetings are conducted around the kava bowl;

kava drinking is also a social activity in which family members may participate together, and

it has been reported that kava is mixed in much greater strength in Arnhem Land than in Pacific Island countries (Cawte, 1985b). However, as noted above, the strength of the beverage is very difficult to determine owing to factors such as the variety and

part of the plant used as well as the degree of dilution.

No information is currently available to quantify the proportion of people using kava in each community, the characteristics of these people or the frequency of their kava use.

A rough estimate of the average daily kava consumption of residents of Aboriginal communities can be determined from the amount of kava supplied to each community and the population of these communities. Table 2 presents the estimated daily per capita consumption of kava in the early part of 1985 for various communities. The average monthly supply of kava to each community was calculated from table 1. From this figure, the daily usage of kava powder was estimated. The number of bowls of the kava beverage that this daily quantity of powder would produce was calculated using the figure of 200 grams of kava powder per large bowl (approximately 10 litres) which is recommended by the suppliers (Fiji Markets, Sydney).

The population figures for each community are taken from the 1981 Census as this is the most accurate, published estimate of Aboriginal populations currently available (Choi and Gray, 1985). The adult population figures include all individuals aged 15 years or older.

It should be noted that these estimates of per capita kava consumption are based on the following assumptions:

that the quantities of kava purchased by individual communities (table 1) are used by these communities alone (for this reason Yirrkala has been excluded from table 2);

that the quantities of kava supplied monthly to the communities (reported as aggregates in table 1) are in fact used monthly. This assumption would appear to be substantiated as most communities consistently order supplies of kava on a monthly basis;

that all people over the age of 15 years use kava. This assumption is not upheld as not all adults in all communities regularly consume kava. Furthermore, some children under 15 years of age sometimes drink kava, and

that kava is prepared as recommended by the suppliers, that is, 200 grams per large bowl or container. There are several problems with this assumption. In each community kava is sold in packets which range from 300 grams to 400 grams in weight. In practice, one packet is usually used to prepare a container of whatever size is available. Sometimes the 'tea-bag' of kava is reused to prepare a second or subsequent bowl, while in other cases,

more than one packet may be used in a single bowl. It has been suggested that very strong concentrations are currently prepared in some communities (Cawte, 1985b).

Table 2

Estimated daily per capita kava consumption,  
January to May 1985

Community	Average monthly kava supply (kg)	Est. daily kava use (kg)	Est. daily kava use (kg)	Adult population (15+ yrs)	Number adults per bowl per day
Minjilang	40	1.3	7	99	14
Warruwi	200	6.7	33	131	4
Maningrida	54	1.8	9	353	39*
Milingimbi	445	14.8	74	258	3
Ramingining	240	8.0	45	105	2
Gapuwiyak	235	7.8	39	290	7
Galiwin'ku	250	8.3	41	634	15

\*Kava supplies to Maningrida began during March 1985.

Table 2 shows that, based on the estimates used, an average of two to 15 adults would share one bowl of kava each day. This quantity would represent an average of up to half a bowl of kava per person (or the equivalent if a stronger concentration is prepared). These estimates are almost certainly an underestimate of the actual quantity consumed by regular drinkers, as the quantity of kava supplies presented in table 1 are incomplete, and not all the adults in the communities consume kava. The estimates do, however, provide a base level from which to gauge the amount of kava which may be consumed by occasional drinkers and regular drinkers in each community.

The total cost for communities to purchase powdered kava from Sydney suppliers is approximately \$30 per kilogram. Some suppliers charge a lower rate for the kava and also charge air freight costs, while others charge at an all-inclusive rate. In most communities, kava is resold in packets of approximately 300 to 400 grams, for \$15 per packet. The retail price of a kilogram of kava is then approximately \$45.

Table 3 presents the estimated monthly wholesale and retail costs of kava for various communities. These estimates are based on the supplies presented in table 1. As table 1 underestimates total supplies to the communities the costs presented in table 3 also underestimate actual costs.

Table 3

Estimates average monthly wholesale and retail kava costs,  
January to May 1985

Community	Estimated wholesale cost (per month) \$	Estimated retail value (per month) \$
*Minjilang	520	1,200
Warruwi	6,000	9,000
*Maningrida	408	1,620
Milingimbi	13,350	20,025
Ramingining	7,200	10,800
Gapuwiyak	7,050	10,575
Galiwin'ku	7,500	11,250

\*The supplier to these communities charges at a lower rate.

Actual retail prices vary from \$10 to \$30 per packet depending on the seller, the community and the demand. The cost to some outstations is considerably higher owing to additional freight charges.

In several communities, the only supplier of kava is the Homeland Resource Centre. In these cases, profits from kava sales are used to fund outstations and other community projects. At Yirrkala, for example, profits have enabled the Resource Centre to purchase a Toyota truck used to service the growing number of outstations (Ellis, 1984b). Reports from some other communities, however, suggest that the kava sales business has become an enterprise of single individuals.

#### THE IMPACT OF KAVA IN ARNHAM LAND

The current use of kava in Arnhem Land is a controversial issue. Some people associated with the Arnhem Land communities

support and encourage kava use while others are opposed to it. This section summarises both the positive and negative impacts that kava use has had in Arnhem Land Aboriginal communities.

#### Positive impacts of kava

It appears that, in many cases, kava is being used as a substitute for alcohol. This is reported to be occurring both in communities where alcohol is available and in 'dry' communities where those wishing to drink alcohol must do so outside the community boundaries. The following reports and observations illustrate this point:

many previously heavy alcohol drinkers are now frequently involved in kava parties. During this time, at least, they are not consuming alcohol (Hoyles, 1982; Downing, 1985);

there are individual reports of heavy alcohol drinkers switching completely to kava (Hoyles, 1982; Downing, 1985; Cawte, 1985b);

the air charter companies which carry people from 'dry' communities into towns (often for the sole purpose of obtaining alcohol), report that they have had fewer customers since kava has been available in the communities;

Aboriginal women in some communities report that the men now stay home instead of visiting the towns to drink (pers. obs.), and

reports from several sources indicate that alcohol sales to Aboriginal people in Nhulunbuy have declined since kava has been available.

The soporific effects following heavy kava intake are far preferable to the aggressiveness associated with excessive alcohol use. Residents of the Yirrkala community report that vandalism and violence have decreased since kava use became widespread.

Several reports indicate that gambling and petrol sniffing, as well as alcohol use, have reduced since kava use became prevalent (Downing, 1985; Cawte, 1985b).

Many people report that kava drinking fits well into the Aboriginal way of life. It is a group activity which is easily integrated into traditional ceremonies. It also facilitates group social activities such as singing, storytelling and other meetings.

The fellowship of the kava drinking group facilitates both formal discussion and social activities. On these occasions

much good communication takes place, without the disruptive effects associated with alcohol use.

Kava drinking groups encourage all family and community members to get together. This is in contrast to alcohol drinking groups in which the sexes are often separated.

In some communities, profits from kava resale are being used for community and outstation projects (Downing, 1985; Ellis 1984b).

#### Negative impacts of kava

The negative impacts of kava use are of three main kinds: social, health and economic.

#### Social problems.

A major concern is that people are spending large amounts of time drinking kava, to the exclusion of responsibilities such as employment, family and church. A frequent complaint from employers is that people who have been up drinking kava until late at night are too tired to attend work the next day. This absenteeism is likely to be as much a consequence of lack of sleep as of the physiological effects of kava use.

Another frequent complaint from health workers is that parents who spend their time drinking kava often fail to care adequately for their children. Again, this problem is not associated with kava as such, but with the social impacts of its use.

#### Health problems

The physiological effects of kava use are outlined above. No evidence exists which suggests that small quantities of kava prepared from powder of the type used by the Arnhem Land communities is likely to have any long-term physical effects on individual consumers. There is widespread concern, however, that large quantities of kava are being consumed by some individuals in these communities. It has been suggested that when large quantities of kava are consumed, the pharmacological effects may be quite different from those described in the kava literature. To date, no scientific investigations of the health consequences of heavy consumption of the kava beverage by humans, have been undertaken.

Northern Territory Health Department staff have been monitoring health problems in Aboriginal communities which may be a consequence of heavy kava use. No adequately diagnosed health problems have been definitely attributed to kava consumption. Several reports have indicated that dry, scaly skin, skin

discolouration and allergic reactions (facial puffiness) are probably kava caused, however, the numbers involved are a small proportion of the total kava drinking population.

The frequent lack of adequate hygiene during the preparation and drinking of kava is a major health concern. Kava preparation involves wrapping the powder in a cloth which is then squeezed by the hands while immersed in a large container of water. A communal cup is then used to share the beverage among drinkers. There is concern that the infectious diseases prevalent in Arnhem Land communities may be spread by these procedures.

Reports have been received that kava is sometimes being mixed with alcohol and other drugs. It is well known that consuming combinations of drugs can cause serious health problems. The chemical interactions between kava and alcohol or other drugs have not, as yet, been investigated.

#### Economic problems

It is said that kava drinking is an expensive activity which uses money that would otherwise be spent on food, clothing and other necessary items. The actual financial costs of kava use in various Aboriginal communities may be investigated at two levels: costs to the individual consumer, and costs to the community.

#### Costs to individual consumers

It costs, on average, \$15 to prepare one bowl of kava of approximately 10 litres. The kava used in this preparation may sometimes be reused to prepare a smaller quantity of the beverage (say five litres).

For the same price one can purchase approximately two dozen 375 ml cans of beer or four two-litre flagons of wine.

These estimates, while very rough, indicate that the costs of drinking similar quantities of kava, beer and flagon wine are similar. It is likely, however, that kava is consumed in greater quantities than alcoholic beverages by individual consumers owing to its milder effects.

It is not meaningful to calculate the weekly or monthly costs of kava to individual consumers, owing to the sharing nature of Aboriginal communities and the way that kava is consumed as a group activity.

### Costs to communities

Table 3 shows that most communities are spending at least \$6,000 per month on kava supplies. However, as a large proportion of the profit on kava sales is usually retained by the community, only part of this amount is lost to the local economy. The impact of this level of expenditure on kava supplies can only be interpreted within the total economy of each community.

### INTERPRETATIONS OF KAVA USE IN ARNHAM LAND

The current use of kava in Northern Australia is different from kava use throughout the Pacific Islands. Arnhem Land is one of the few places where kava has been introduced recently, and where the practice does not have any traditional cultural basis.

Numerous theoretical models have been proposed to explain drug taking behaviours in various societies. Some of these theories can be used to interpret the current widespread use of kava in Arnhem Land Aboriginal communities. These models are not mutually exclusive, but enable one to view the behaviour from different perspectives.

#### Addiction model

The addiction model focuses on the behaviour of individuals, rather than social groups. The model proposes that individuals use kava regularly because the practice is dependence forming, either in the physical or psychological sense. An extension of this theory suggests that many people have a psychological need to use drugs of various types. In this way, kava may serve the same functions as alcohol, coffee and other drugs even though its physical effects are different.

#### Social deviance model

Social deviance models state that behaviours which violate social norms are deviant and therefore should be regulated by social control measures such as legislation. Kava drinking in Aboriginal communities has been viewed as deviant by some people, because it does not conform to their expectations of socially correct behaviour. For example, spending large amounts of time drinking kava is considered to be socially irresponsible because it results in neglect of family, work and church responsibilities.

It is important to note that Australian Aboriginal societies have no traditional, culturally established norms or other social controls to regulate kava drinking. Thus it is

not surprising that the practice is widespread and often uncontrolled. Recently, social control was attempted in one Arnhem Land community when a temporary ban by the Council prohibited kava supplies reaching the community for a short period of time.

#### Resources model

The resources model states that the level and patterns of drug-taking in a society are a function of the resources available to individuals or to the social group. Such resources include money, time and energy. In most Aboriginal communities, time is a resource in abundance. In many cases, kava drinking appears to be simply a pleasant way to spend time which is less harmful than alternatives such as drinking alcohol, gambling or petrol sniffing.

#### Cultural and social change model

Cultural and social change models propose that certain behaviours become prevalent because they have a social meaning or cultural identity for a particular social group. Such behaviours are frequently observed in societies where social upheaval or cultural change is occurring.

Kava drinking has become a symbol of traditional culture and independence from westernisation in many Pacific countries as noted above. The practice may currently be assuming a similar meaning in Arnhem Land.

Kava was first used in Arnhem Land communities which employed community workers from Pacific countries, and was distributed from the Homeland Resource Centres. The aim of these Centres is to encourage and facilitate the migration of Aboriginal people from communities established by the Missions to tribal lands (outstations) where they live in autonomy under tribal law. The outstation movement has many similarities to recent moves by Pacific countries to encourage traditional culture, local rule and independence from westernisation.

In this context, kava use in Arnhem Land may have taken on some aspects of its social meaning in the Pacific. Although kava has only recently appeared in Arnhem Land and has little traditional cultural identity for Aboriginal people, it is still a symbol of indigenous customs and is reported to be easily assimilated into Aboriginal ceremonies.

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**Maggie Brady  
and  
Kingsley Palmer**

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Author: Maggie Brady  
Illustrator: Kingsley Palmer

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A STUDY OF DRINKING  
IN AN  
ABORIGINAL COMMUNITY

BY  
MAGGIE BRADY AND KINGSLEY PALMER

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## PREFACE

This monograph is not the first detailed study of alcohol consumption in an Aboriginal community, but there have not been too many. Most disquisitions on the subject of Aboriginal drinking have depended in large measure on opinions and fairly subjective observations - not to mention misconceptions and prejudices - rather than facts and well informed judgements. Ms Brady's and Dr Palmer's study is all the more welcome because it impresses as being about as objective as one can be on an issue of this kind.

There is a wealth of reports of parliamentary committees, departments, and other government bodies on the effects of alcohol in Aboriginal communities. Much less has been published about how Aboriginal people actually use alcohol, and their apparent attitudes towards it. Empirical data has also been lacking. The authors have reached certain conclusions based on their studies of Diamond Well, and in my experience they hold good for many (if not most) Aboriginal communities in similar situations.

In certain respects, approaches towards liquor consumption by Aboriginal people differ little from those of most other Australians. We need not always search for special reasons for occasional or even regular over-indulgence: Aboriginal people may drink liquor simply because they feel economically deprived or socially disadvantaged. On the other hand, and in other ways and this is especially true of Aboriginal people living more or less in a traditional society - it seems clear that alcohol is used and viewed in a way which most white Australians find hard to comprehend. For example, in Australian society and under its judicial system, a person is not absolved of responsibility for actions committed whilst intoxicated. If the matter is one which comes before a court, the court may well take the fact of intoxication into account in assessing the penalty, but not in determining the question of guilt.

In traditional Aboriginal communities, liquor is very differently regarded. A man may become drunk and abuse or assault or cause great injury or offence to someone, but he is not necessarily in any way blamed; it is the 'grog' which did it. Indeed, liquor becomes a thing personified and discussed as though it was an entity with a life of its own. It is commonly regarded as a thing of malign influence which Aboriginal people must exclude from their communities. It is for this reason that in many Aboriginal communities, community leaders believe that the only way they can deal with problems of alcohol is by total exclusion or the creation of 'dry areas', and this attitude is not simply the result of past church missionary influence as some researchers are inclined to believe.

'Alcohol in the Outback' is in one sense a study of the way in which the Aboriginal community at Diamond Well has tried to come to terms with alcohol. Whether it has done so successfully depends upon your perspective, and the authors have been careful not to suggest that any one approach has been or will prove to be more successful than another. At the conclusion of the study, Christian evangelistic influences at Diamond Well had apparently led to a decrease in the amount of alcohol consumed. This may not be sustained as more recent news suggests. The process is obviously not yet over.

I commend the work of Ms Brady and Dr Palmer to all who are interested in a problem which is so wide-spread in Aboriginal communities, especially if they are themselves trying to assist people in these communities in ameliorating the effects of a substance which British subjects introduced with such dramatic consequences.

Ian Pitman

Director,  
Office of Aboriginal Liaison,  
Darwin; formerly Chairman,  
NT Liquor Commission.

## AUTHORS' NOTE

We have disguised the name of the community which we discuss in this paper in order to protect the integrity and identity of our Aboriginal consultants. We have also modified our accounts of both the geographical and historical background in order to retain anonymity of both the community and those individuals with whom we worked. Despite these necessary measures we have endeavoured to provide enough information to contextualise the study, and hope that it will be of positive value to those who read it. The text has been developed from a report prepared for a largely medical readership. Although much of it necessarily draws on medical terminology, the analytic framework is basically anthropological.

## ACKNOWLEDGEMENTS

We would like to thank the Australian Associated Brewers (Medical Research Advisory Committee) whose initial research grant made this study possible. The South Australian Alcohol and Drug Addicts Treatment Board provided some supplementary financial support for which we are grateful. Special thanks are extended to Dr Rene Pols of the Board for his energetic personal interest.

The School of Medicine of Flinders University, South Australia, hosted both of us while we were researching and writing up this Report and gave logistic and moral support during the fieldwork. The study grew out of ongoing research conducted by the Western Desert Project based in the Department of Psychiatry. The Head of Department, Professor Ross Kalucy, continually gave his support and encouragement to us, as did Professor G.J. Fraenkel, Dean of the School of Medicine. Peter Steele of the Flinders Medical Centre provided logistical help in the planning of field trips, which was far beyond the call of duty. Janine Judd also provided welcome practical help to us.

The SA Aboriginal Health Organisation gave us access to Clinic records, and its staff in the field, Colleen Slattery and Sandy O'Brien provided us with a mine of information. Our enquiries involved them in much additional work, compiling retrospective data and completing questionnaires, for which we are most grateful. Many other local people provided both formal and informal data - our thanks to Keith Masson, Darcy O'Shea, Brian Pike and Tom Price.

The Aboriginal people of Diamond Well, some of whom have become our close associates rather than just informants, provided us with the richest material and shared their experiences generously with us. They enabled us to live with them in the camps, answered our questions and extended our knowledge of their language.

White staff at Diamond Well gave us friendship and hospitality during rather difficult times and special thanks are extended to Graham Norwood, Max and Clare Morrell and John and June Austin.

Two research assistants, Marcelle Tsalikis and Jackie Morton, compiled statistical data and ran an SPSS programme on our Clinic material and we thank them for their help.

The Darwin-based North Australia Research Unit of the Australian National University provided a base for Maggie Brady while the Report was being completed and we would like to thank Dr Peter Loveday, Dr Elspeth Young and Maureen Phillips for their help in making this possible.

INTRODUCTION

It has long been popular in accounts of Aboriginal contact with European Australians to characterise Aboriginal societies as ones that have suffered irremediable cultural collapse, disintegration and the breakdown of tribal authority (see Bates 1972:95; Sharp 1968). Excessive drinking, as we shall note, was seen as a mechanism through which the disinherited vainly attempted to forget their physical suffering and social decay. Drink was a panacea that numbed an unpleasant and oppressive reality and thereby made it a little easier to accept.

It is all too easy to apply this model without due regard to the observable reality. Our work at Diamond Well led us to conclude that ritual life, social organisation, language and traditions were strong (see Palmer, 1982). Aboriginal people have retained their identity and their cultural systems to an extent which made phrases like 'cultural breakdown' or 'social disintegration' irrelevant. Even if the reasoning that posited that Aboriginal people drink because their social system is breaking down is tenable (and there are serious arguments against the proposition) it is clearly not apposite to the Diamond Well situation.

Anthropologists who have stressed the positive side of drinking may find themselves in a bind because while describing alcohol consumption as a dynamic series of social actions they often neglect to report their sometimes devastating consequences. Anthropologists study a series of acts which involve the creation or sustaining of social relationships. These acts are, of necessity, time-bounded. Anthropologists must select the point in time when they consider the transaction to be more or less concluded. When a specific business undertaking is concluded, then it can be taken as a time-bounded unit and subject to analysis. However, it seems to be a major departure from this principle to discuss the organisation of the activity of drinking, without also considering the consequences. Aborigines are not only aware of drinking acts, but also are conscious of, and concerned about, the consequences of drinking. In this paper, then, we distinguish the act of drinking from the consequences of drinking in order to render a holistic account of our subject. To do less than this would be to consider only one side of the coin.

There are two important issues which arise from these initial propositions. The first concerns the relationship of consequence and cause in Aboriginal understandings. If the results of drinking are damaging, then why do Aborigines persist in drinking?

Aborigines, like European Australian drinkers do not often consider that deleterious consequences are sufficient reason to stop drinking. European Australian drinkers, on the whole, are probably better educated than Aborigines as to the physical consequences of heavy drinking, yet few would consider this sufficient reason to desist. Aborigines, like European Australians, either consider the activity of heavy drinking to be a sufficient compensation for the dire consequences, or are unwilling to admit to the causal relationship between heavy drinking and physical harm. We consider that the former is more usually the case, since in our experience Aborigines are aware of the dangers of heavy drinking sprees, and organise themselves in order to minimise risk to themselves and their

kin. In this paper we seek to demonstrate the nature of the compensation implicit in the act of heavy drinking which makes consequences either real or predicted, of little importance. Those who have strong reasons for doing something will have little use for considerations of negative consequences. Those who smoke, take tranquilisers, or drive cars, do so because they feel they have good reasons for doing so, but usually disregard the consequences, which can prove to be fatal.

We advance the proposition that heavy drinking and the effects of heavy drinking are important for those Aborigines who do so because of what is considered to be obtained or obtainable through the altered mind state of inebriation. An inebriated person, in Aboriginal understandings, becomes a member of a different order of reality than the one who is not intoxicated. He belongs to an aggregate group whose members, by virtue of what they imbibe and its effects on their nervous systems, act, interact, think and are physically different from their non-drinking peers. Recruitment to the drinking group can be specified, results of intoxication designated and the interaction of drinkers with drinkers and with sober people characterised. Drinkers, acting together, enter into a world of action and discourse different from that of everyday experience. They are separated from ordinary living and have put themselves outside of the affairs of daily living. When drinking is finished and the effects of intoxication have worn off, drinkers are re-incorporated into the larger group.

In this paper we use as a heuristic device the concept that drinking which results in intoxication is a ritual act involving separation from the rest of the community and an entry into a liminal phase of existence. When drinking and drunkenness are over, participants enter a post-liminal phase and are re-incorporated into the community. We will argue, then, that Aboriginal drinking at Diamond Well can be considered as a form of ritual and subjected to the same structural analysis as A. van Gennep (1960) first applied to religious ritual in 1909.

During the period of liminal separation, drinkers belong to a world of social action and discourse which is characterised by the inebriated state. We will demonstrate that in this state they claim to have access to goods and relationships which otherwise they find elusive or unobtainable. This supposed command of goods and services is here understood as a form of power. Drinking, then, is an activity through which Aborigines, who are socially and economically powerless within their community, seek to obtain access to those things which are otherwise beyond their reach.

However, the effects of drinking in terms of access to power are merely illusory, since the state of group inebriation does not, in fact, alter the status quo. Moreover, it is not possible to remain in the liminal state for long periods, so if drinkers do gain access to, or control over, others, goods or services, the advantage is ephemeral while the exercise of power is seriously hampered by physical incapacity. Aborigines at Diamond Well use alcohol as a means whereby they mythically seek to redress their powerlessness and subordinate status in a world dominated by European Australians.

The new Aboriginal Christianity at Diamond Well, which became popular during the latter part of field work there, is a substitutive device,

taking the place of alcohol. Christ's kingdom on earth is perceived to be one where all are equal and where the submissive will have more than a special place ('The meek shall inherit the earth'). It is not surprising that Christianity has been substituted for heavy drinking among some Diamond Well residents. While it is a mythical rather than a substantive response to power imbalance, its consequences are, at least in the short term, less devastating than heavy drinking.

In this paper we seek to describe how Aborigines organise their drinking business and what have been the consequences of their actions from time to time. We also posit reasons why Aborigines at Diamond Well drink and demonstrate that since these desired ends can also be obtained through alternative forms of ritual and myth, drinking has become redundant among some groups at Diamond Well, and so has declined in importance.

#### The Literature

The possibility of making generalised, theoretical comment on the excessive use of alcohol was enhanced by the availability of what became known as the Human Relations Area Files. This was a compendium of world ethnography put together by George Murdock and others at Yale University and it enabled researchers to pursue large-scale cross-cultural correlations on issues such as child-rearing, economics, kinship structure and alcohol use. Horton (1943) in a study based on the Area Files was the first to attempt to 'propose and systematically test a series of explicit and straightforward hypotheses about the functions of drinking' (Heath, 1975:20). On the basis of statistical correlations, Horton proposed that the primary function of alcohol in all societies was to reduce anxiety. As Heath comments, this has become perhaps the most popular generalisation about drinking.

Horton's study paved the way for other researchers to test out primarily psychological propositions about the functions of drinking and drunkenness. This is despite the fact that the basis for Horton's conclusions - that anxiety over insecure food supplies leads to drinking - have been soundly criticised. Anthropological evidence (Lee, 1980) has undermined the previous assumption of Horton and others that hunting and gathering societies lived in a state of subsistence insecurity. Sahlins (1974) for example describes such cultures as living in a state of 'affluence without abundance'. Moreover, hunters and gatherers living in a post contact context (as do the Diamond Well people) have a substantially different economic system from that which their forebears enjoyed. There is no indication that they now live in a state of subsistence insecurity. Sahlins (1974) for example describes such cultures as living in a state of 'affluence without abundance'. Moreover, hunters and gatherers living in a post contact context (as do the Diamond Well people) have a substantially different economic system from that which their forebears enjoyed. There is no indication that they now live in a state of subsistence insecurity.

Schaefer (1976) and McClelland (1972), while criticising Horton's economic insecurity assumptions, have followed his cross-cultural correlation technique and posited other theses. Schaefer suggests that the function of alcohol is to reduce anxiety and powerlessness in tribal societies whose belief in unpredictable spirits caused anxiety. McClelland *et al.* (1972), incorporating findings from a cross-cultural content analysis of folk tales, concluded that men drink primarily to get stronger and to satisfy needs for personalised power.

Studies of this sort rely solely on an academic rather than experiential knowledge of the societies under scrutiny. Such attempts to posit global explanations for heavy drinking were neither successful nor helpful to others who sought to understand the place of drinking in people's lives, or who were involved in preventative or interventionist strategies. It has undoubtedly become a less popular research methodology in recent years.

There is a body of literature of a welfare orientation which tends to focus only on the pathological aspects of drinking, its socially disruptive ramifications and medical sequelae. Such studies also tend to avoid structural or perceptual issues and arise from a largely psychological framework (Lubart, 1969; Larson, 1979, 1980).

The purely anthropological studies, however, often err to the extent of avoiding an acknowledgement of the pathological consequences of excessive drinking. In fact, Graves sees this as an 'unspoken taboo against exposing a behavioural pattern that is so manifestly dysfunctional' (1967:319). Despite this shortcoming it is clear that anthropological studies which utilise intensive fieldwork observations provide insights into features of drinking behaviour which may, in the long run, contribute more towards effective understanding and thus aid attempts to offset the more serious aftermath of alcohol abuse.

We surveyed the literature with a specific reference to Australian Aboriginal and North American Indian drinking, and give below a brief overview of the major theoretical concerns which we considered useful.

#### Sociocultural Deprivation

In searching for the causes of 'excessive' or 'problem' drinking among indigenous peoples, there are many studies which consider culture conflict, acculturation and economic oppression as being influential. Dozier (1966), for example, writes on the North American Indians' 'fall from a proud existence in an earlier time when they felt themselves the equal of all men' (*ibid*:76). He asserts that alcoholic beverages which deadened the senses and helped the Indian to forget his feeling of inadequacy, created an unreal world in which the Indian perceived himself to be an equal of the white man (*ibid*:77). Lubart (1969), a psychiatrist, studied McKenzie Delta Eskimos and concluded that their motivations for excessive drinking were anxiety about the future, tension and depression, and bitterness towards the Government and Whites in general (*ibid*:8). Graves (1967) states unequivocally that the symptoms of social and psychic disorganisation among American Indians, manifested in violence and hostility, were epitomised by heavy drinking and drunkenness (*ibid*:306). Writing about Townsville (Queensland) Aborigines, Larsen (1980) asserts that discrimination

frequently produces a 'sense of maladjustment reflected in widespread alcohol abuse' (*ibid*:385). However, his use of the term 'maladjustment' is unfortunate as it suggests that culpability lies in the victim of the discrimination. Certainly, most socially aware researchers now incorporate such factors into their analyses of causes for heavy drinking among minority and colonised groups. This perspective, however, is also not without its problems.<sup>1</sup>

#### Dependence and Power

Power considerations have been studied from both psychological and sociological perspectives. Lubart (1969) and Hippler (1973) for example, both psychiatrists, consider psychological dependency on the parents, ambivalence and even 'oral deprivation and rage' as being contributory factors to excessive drinking among Eskimo peoples. McClelland (1972) concluded that alcohol ingestion cued off thoughts of strength and power in men everywhere. Sociologist Lemert (1958) noted that drinking enables otherwise oppressed or dependent groups to speak or act out their feelings. Similarly, anthropologist Beckett (1965), writing of Aborigines in rural NSW, suggested that drinking and getting drunk was 'perhaps the only means whereby a minority which has been terrorised in the past and which remains disunited and politically impotent can defy the white majority' (*ibid*:46). Sansom (1980), in a study of Darwin fringe-camp drinking, links the end of prohibition for Aborigines and their citizenship (the right to vote). These events occurred in 1963-64. "Since we bin have that citizenship", a man says, "lotta things bin different"...he taps twice on his beer can' (*ibid*:49). The right to drink is perceived by these Aborigines as being synonymous with equality, epitomised by their citizenship. Therefore to drink openly and to buy alcohol openly are acts which reaffirm their equality with other Australians.

In a similar vein, Allen (1980) describes the events surrounding the closure of a liquor store in the Northern Territory. He shows that despite the 'misery and unhappiness' associated with alcohol at Oenpelli Mission, the closure of the store reasserted the power of the mission and of the police. They both acted to prevent Aborigines from drinking 'despite their wishes and inclinations. Right or wrong, the right to consume alcohol has become for Aborigines a headway made against social discrimination' (*ibid*:96).

#### Functional Approaches to Drinking

Heath (1975:50) suggests that to emphasise 'group solidarity' or 'positive social integration' in an analysis of alcohol consumption is to adopt a functionalist approach to drinking. Certainly many ethnographic descriptions of communities in which drinking is a major activity reveal the 'positive' aspects of the behaviour. In so doing, though, anthropologists sometimes overlook the dysfunctional spin-offs of drinking - a point Heath reiterates. Honigman and Honigman (1965), in an article on the changing drinking patterns of Baffin Island Eskimo, found that alcohol consumption correlated directly with economic and social status, 'it is one mark of a full-fledged Eskimo townsman' (*ibid*:81). In contrast to those who emphasise alcohol's disintegrative or disruptive influences, Swed (1966) asserts that drinking in a Newfoundland parish acts as a safeguard against divisive and disruptive behaviour. By introducing drinking at

community meetings, social distances were narrowed and an institutionalised excuse ('I was drunk') was provided to explain away any hostile public outbursts (*ibid*:439). In a study of changes in Naskapi Indian (Quebec) life precipitated by rapid economic change, Robbins (1973) interpreted drinking as providing a focus of interpersonal conflict while simultaneously providing the opportunity for conflict resolution (*ibid*:99). However, he noted that actual injuries were rare - a situation quite different from that of our own study.

In a study of a Philippino community who shared, through straws, a locally fermented beer, Frake presents the drinking sessions as occasions providing a medium of inter-family communication (Frake, 1977). Within the drinking encounter was a structured setting where relationships 'can be extended, defined and manipulated through the use of speech...the most skilled in "talking from the straw" are the *de facto* leaders of the society' (*ibid*:93). Perhaps the most well-known, and certainly one of the most thought-provoking works on drinking is MacAndrew and Edgerton's *Drunken Comportment* (1969). In this book the authors develop the notion of 'time out', time in the flow of community activities which is set aside for behaviour which otherwise would be disallowed or frowned upon (see also Leach, 1965). 'Time out' can be achieved in a variety of ways: through ritual performance, by temporarily assuming a change in social position or by producing an altered state of consciousness. Alcohol, they state, is by far the most frequently used agent to produce such a change. Time out offers a solution to the inevitable conflicts of life because it allows people to express their 'conflict-engendered transgressions' on occasions which 'fall under the purview of...sanctioned Time Out'. Repercussions are reduced and the chance of disruptions occurring at other times are reduced (MacAndrew and Edgerton, 1969:168-9). We shall argue in this study that some of the Diamond Well people, by embracing an emotional Christianity, exchanged the altered state of consciousness of drunkenness for that of the Gospel meeting. In the Gospel meeting was a sanctioned occasion on which past transgressions could be openly expressed, through the medium of personal testimonies.

#### Social Organisation and Exchanges

A more recent trend among anthropologists studying drinking is to observe and comment upon the drinking act itself, its organisation and patterning, and its meaning for those involved. Sansom's study of Darwin Aborigines (1977) is an example of such work and Collman (1979) has produced a study of drinking patterns and exchanges for a similar group of fringe dwellers in Alice Springs. Collman rejects the traditional view of heavy drinking as being the pathological response to cultural breakdown. His thesis is that the consumption and sharing of liquor are, in fact, processes of social organisation within which Aborigines construct their social world. Collman also explains how alcohol became a means of creating credit among an alcohol-sharing group.

Many welfare-oriented remedial approaches neglect to consider the fact that individual Aborigines are often not prepared to interfere with the drinking activities of other Aborigines. Quite simply, drinking and fighting are often seen as being 'their own business' and not something others have the right to do anything about (Milliken, 1974:51; Bell and Ditton, 1980:32). A discovery such as this is rarely made by those who

study alcohol use statistically, or who make only brief visits to Aboriginal communities. Our study which utilises data collected during anthropological fieldwork together with statistics on alcohol related injuries, is an attempt to provide a holistic as well as a contextualized account of drinking in one community.

## CHAPTER ONE

## THE SOCIAL BACKGROUND TO THE STUDY

## Introduction

The Aboriginal community which is the subject of the research discussed here is situated in outback Australia. It is a little over 200 km away from the nearest town, and some 1,000 km by road from the nearest capital city. The Aboriginal settlement is located three km north of a highway, and only 50 km west of the nearest liquor outlet, at a Roadhouse and Hotel which we will call Dindara.

Diamond Well has an Aboriginal population of about 300, and a White population of between 20 and 30 staff and teachers, including their children. Both populations fluctuate. The Aborigines make extended visits to kin and friends in the neighbouring town or travel further afield to other Aboriginal settlements to the north or west. There is high turnover of White staff. When a member of staff leaves it is not always possible to replace him quickly which results in staff levels falling.

The settlement consists of 12 houses occupied by European Australians, an administration building, store, workshop, church, visitors' quarters and a clinic. There is also a school and pre-school, a Further Education centre and a community hall. Aborigines generally live in shelters made from tree branches and covered with polythene sheets, but often incorporating wire mesh, corrugated iron and steel posts when they are available. Aborigines live in small camps, collectively called 'Big Camp' and often situated some distance from the main settlement. Since January 1982 there has been a tendency for the Aboriginal camps to be situated close to the settlement and at the time of writing (1982) there were six Aboriginal houses, four of them recently completed. One family was living in a caravan.

There is no sewerage or reticulated water for Aborigines at Diamond Well at present. Water is either collected by them from a tap in the centre of the settlement, or taken from small portable tanks located close to the camps and filled by a mobile tanker daily, or when required. Living conditions at Diamond Well for Aborigines are generally deplorable. The climate is dominated in winter by periods of cold, wet weather, with drier periods notable for their very strong winds which cause unpleasant dust storms. In summer the climate is marked by periods of hot weather with temperatures exceeding 40°C but with rapid and drastic changes in which the temperature can drop 20°C in a few hours. Lack of housing, sanitation and services makes living at Diamond Well uncomfortable and often unhealthy for Aborigines.

We both worked at Diamond Well pursuing a programme of anthropological research during 1981 and 1982. One of us (M.B.) had been visiting the community since 1978, spending up to six days at a time staying in the settlement and working with Aborigines. In May 1981, however, we both visited Diamond Well for extended periods, living in the Aboriginal camp in a traditional shelter, and came to know something of the discomfort, inconvenience and illness which the Aborigines experienced. During 1981 we spent a total of six months at Diamond Well, and by the end of field work in August 1982, one of us (K.P.) had spent a further two months at Diamond Well. During the period of field work we came to have a close association and friendship with many Diamond Well residents, both Aboriginal and European Australian, and to experience many activities, interactions and incidents which were of fundamental importance to the generation of our understandings of the dynamics of the community.

Living as we did, in close proximity with the people we studied, we were able to observe closely the interactions with which we were surrounded. But our acceptance, and the indulgences we were afforded and the confidences we came to enjoy were a result of our being accepted as participants and members of the community we studied. Our position was always a little different from that of the Aborigines. For example, we had the use of a four-wheel-drive vehicle, and a caravan in the settlement which we used during the day. We also had excellent sleeping bags and a good tarpaulin in contrast to the few blankets and leaky polythene sheets of our Aboriginal associates. Nevertheless, we participated in the activities of both camp and settlement so that after a period of several weeks we were accepted by our closer acquaintances as part of the group to which we had attached ourselves. As time went on our respective roles became clearer. One of us (K.P.) worked extensively on issues relating to the protection of sites in areas subject to mineral exploration programmes. The other was known to be working on research into juvenile offending and petrol sniffing, both issues of concern to members of the community and ones they were eager to see rectified if possible.

Aborigines at Diamond Well speak a Western Desert language and originated from areas which lie some distance from the present settlement. English is not heard much among the Aborigines at Diamond Well and consequently we worked to gain an understanding of their language. Although neither of us can claim to have become fluent speakers of the local language, we developed some facility in the language and this we regarded as an essential research tool. Aboriginal understandings, concepts and modes of expression are not necessarily the same as our own and understanding a language is an essential first step to understanding the culture it represents. Such a proposition is fundamental to anthropological endeavours. There is no doubt that a lack of familiarity with the local language would seriously have impaired our ability to understand the community we sought to study.

In summary, our research programme was one in which we were seen to be participating in the affairs of the Diamond Well community and were generally accepted as having legitimate roles within it. Our acceptance and our understanding of the language meant that we were able to collect data, observe interactions and ask questions which constituted a body of

research information upon which we were able to base subsequent analysis.

Our primary sources of data were our field work observations and the responses elicited from our informants. As we were developing ideas concerning the culture we studied, we were also able to evaluate useful areas which might be checked against quantifiable data. In particular we undertook a survey of the alcohol-related injuries reported in the clinic during a six-month period, and collected information on evacuations to the nearest hospital during the last six and a half years. We also collected detailed information from community records on incomes and expenditures by Aborigines within the settlement, in order to attempt to calculate how much money was being spent on alcohol. We also questioned the manager and bar staff at the Dindara Hotel as to quantities of alcohol sold to Aborigines.

While the quantifiable data we present here are important in their own right, we consider their value is as supportive evidence for our propositions which are derived from our observations of human interactions at Diamond Well. Statistical data alone are highly problematic in studies of the sort undertaken here. It is difficult, if not impossible, to know the degree of accuracy obtained because so much goes unreported. For example, we wanted to know how much Aborigines drank at Diamond Well. In order to discover this we monitored how much was sold at the community canteen and made inquiries at the local liquor outlet. We also discussed the matter with several Aboriginal friends. Although we obtained exact figures as to how much was sold within the community, allocation and final distribution patterns were a wholly Aboriginal business, much of which took place surreptitiously and so rapidly and at so many locations as to be impossible to follow. Moreover, there was no necessity for one series of actions on one occasion to be repeated on a subsequent occasion. The manager at Dindara could let us know how much he sold, but again, we could not absolutely establish subsequent allocation. On one occasion when we observed drinking and knew, more or less, how many cartons of port had been consumed, the manager informed us that he had not sold any on that occasion. Trusting our informant, we concluded it had been purchased elsewhere, but acknowledged that it was practically impossible to monitor all outlets. Aboriginal estimates of how much was drunk were vague and in any case concerned descriptions of group drinking, not individual consumption. Similarly, observation of an individual within a drinking group did not result in accurate accounts of individual consumption, particularly since all drinking is done straight from the bottle, there being no use for mugs or cups in this activity.

While it may be possible to observe at first hand allocation and individual consumption (given sufficient stamina), we doubt whether accurate measurement would be possible among such inebriated participants. Collecting quantifiable data in these circumstances is simply a difficult and unreliable way to proceed. Difficulties were also encountered when attempting to collect quantifiable data on alcohol-related injuries, morbidity, hospitalisation, numbers of drunks and damage inflicted, and so on. However, what quantifiable data we were able to collect we assembled with as much care as possible and we include it as essential material to support our major propositions.

We have devoted some space to a discussion of the nature of our data because our approach may be novel to those whose experiences lie largely in

medical rather than sociological research. However, it is our contention that insights into drinking, which we regard primarily as a social activity, should be understood in terms of social interaction, at least initially. This we attempt to do in the following pages.

#### The Social History of the People of Diamond Well

The Diamond Well Aborigines, or their immediate forbears, migrated from desert areas of central Australia during the second, third and fourth decades of this century. They settled at a soak which was a permanent water source and had long been used by the Aborigines who travelled there for rituals or when water became scarce elsewhere. In the early years of this century a railway line was constructed in the region, and a siding was built close to the soak, primarily so that the railway authorities could tap its water supply.

The activities on the line, and the growing availability of rations, together with their prior familiarity with the soak, combined to attract Aborigines to camp there. Simple medical care and limited food supplies were provided at the soak between 1919 and 1935.

The United Aborigines Mission (U.A.M.) established a formal presence at the soak in 1933 and by the 1940s had built a church hall, mission house and dormitories for the Aboriginal children, known as 'The Home'. The U.A.M., a non-denominational 'faith' mission, undertook a deliberate policy of undermining and intervening in Aboriginal social and religious life. Aboriginal parents living in camps a kilometre from the mission were encouraged to deposit their children in 'The Home'. This was the first step towards curbing the 'nomadic habits' of the people, which made it difficult to maintain a stable congregation. A report from Central Australia makes the U.A.M.'s ideology clear:

...there were possibilities of instilling the Gospel into the aborigines if they could be approached when children...if tribal customs could be broken down and the people could be induced to drop their superstition and cruel tribal laws, their lot would be greatly improved. (United Aborigines' Messenger, 1 July 1929).

The U.A.M. with the assistance of the State Government set up a formal ration depot at the soak. The weekly food ration was distributed after Christian service. The missionaries translated the Gospels into the local Aboriginal language and active forays were made into their camps by missionaries in attempts to convert them to Christianity. The missionaries deplored the initiation of young boys, correctly perceiving that initiation marked the entry of the boys into Aboriginal Law and spiritual training. The U.A.M. therefore attempted to suppress initiations, by surreptitiously showing to boys photographs of sacred objects normally revealed to them only in manhood, and they disrupted traditional mortuary rituals by attempts to enforce Christian burial. However, two anthropologists, Ronald and Catherine Berndt, who were working at the soak in 1939 reported that the 'performance of ceremony and rite continues undisturbed' (Berndt, R.M. & C.H., 1942:56).

The Aborigines had become subject to the desires and edicts of a variety of Europeans. The U.A.M. instituted their own punishments

(including head shaving and the wearing of sack-cloth) for misdemeanours it designated; the Railway authorities prevented Aborigines from moving freely along the railway line. By the early 1950s the Defence Department was planning to test atomic weapons on the land the desert Aborigines had owned and occupied for centuries.

In 1952 the U.A.M. establishment at the soak was closed down. The Aboriginal population, now made dependent upon White rations and unable to engage in hunting and gathering forays into their country were forced to move to a new location. The potential danger of radio-activity from the tests meant that they could not remain in that area.

It is clear from historical records that the people did not want to move. They had no spiritual attachment to the land on which they were to be resettled. To the dismay of the departing U.A.M. personnel and the confusion of the Aborigines, they were now to be administered by the Lutheran Church, who had fought vigorously to prevent the U.A.M. from retaining links with the people. The pastoral property to which the Aboriginal people were unwillingly moved was purchased by the State Government and leased to the Lutheran Church: it became known as Diamond Well Mission.

The Aboriginal population had become a body to be administered and although the aims of Church and State were articulated differently, the means were similar: the Aborigines had to be drawn together in settlements. The U.A.M. had realised years before that if the 'natives' were gathered up it would be easier to reach them with the Gospel. It had already noted that part of the Diamond Well estate was of 'strategic importance' to their spiritual campaign.

When the Lutherans officially received the responsibility for the Diamond Well Aborigines, their undertakings were those supported and encouraged by the Government; and the missionaries stated they would train and educate younger men and children to take over management of the property.

A quarter of a century later the affairs of the settlement are still firmly controlled by Europeans. Decisions about the allocation of funds, the provision of services such as water, electricity and medical care, are taken outside of the settlement by the Government bodies with jurisdiction over housing, health and development.

Although in the 1980s European staff now tend to be motivated by factors other than Christian proselytising, until recently the Lutheran presence was strong. A Lutheran lay missionary who lived at Diamond Well for 19 years became the Superintendent and wielded wide-ranging power.

The unwillingness of his European staff and Aboriginal charges to challenge him on controversial issues had a powerful influence upon the development of the settlement. It was during his period of office that drinking among Aborigines was often explained by them as being in order 'to get strong enough so we can say what we think'. He was the first of many to misinterpret the messages that were communicated by Aborigines by their acts of getting drunk. Because of this he persistently continued the effort to teach Aborigines how to drink in a civilised manner, through the

mechanism of the beer canteen which we shall describe in more detail later.

The settlement, which was, in effect, a White township, with administrative offices, churches, store and school, grew with the provision of houses for staff and their families.<sup>2</sup> The Aborigines, on the other hand, apart from a small number who camped around the settlement, chose to live in camps well away from the White dwellings. What has long been known as 'Big Camp' is in fact a collection of smaller family groups camped in traditional shelters of tarpaulins, branches and corrugated iron. Big Camp changes its location frequently and has been established on various occasions from 10 to 30 km away from the settlement. From this distance Aborigines must travel in private cars or in the community truck to perform their business in the settlement: to collect their pension cheques, attend the clinic, make purchases at the store and for their children to attend school.

#### Access to Alcohol: A Historical Overview

The Aboriginal people who were gathered at, or visited, the soak, first encountered alcohol during the period 1909-1917 when the railway line was under construction. A railwayman commented:

... On the whole, the black inhabitants of the plains en route were friendly to the men in the camps during the construction of the railway. Many of the tribes were unused to white people and approached the camps in fear and trepidation (Berkery, 1944:28).

At this time it was illegal for Aborigines to buy or possess alcohol, as a result of the 1891 Licensing Act. Nevertheless, alcohol was obtained from Europeans employed on the construction and maintenance of the railway, and one observer at the time noted that liquor was referred to by the Aboriginal people as kala gabbi - fire drink.

#### The United Aborigines Mission

By 1936 the U.A.M. had established a firm presence at the soak, and missionaries took on the task of preventing their Aboriginal charges from having access to illegal liquor. Berkery wrote:

Every regulation brought in to counteract the illegal traffic was at once countered by a new plan by the men, and strong waters continued to enter camps away out in the desert with no apparent means of communication other than the line itself (ibid:37).

He states that it was forbidden to have alcohol either on the trains or in the camps, but that it was always there (ibid:69). The Head missionary at the soak became incensed at the traffic in alcohol and the immorality it apparently produced which, he claimed, was encouraged by fettlers, and others travelling on the trains.

One missionary wrote several outraged letters to the Railways Commissioner to request police patrols, but it is clear that his concern was based largely on a moralistic stance:

Wine is one of the worst demoralisers, when the natives get it they go mad and do not know what they are doing and cause a great deal of trouble...We trust...in the name of AUSTRALIA'S HONOUR and CHRISTIAN DECENCY that this thing will be stopped.

In response to these letters a police constable made a tour of the gangers' camps in 1944 and concluded that the missionary had 'grossly exaggerated' the position. Nevertheless, there was undoubtedly some liquor exchanged between railway employees and Aborigines.

It seems that wine, rather than beer, was the first alcoholic beverage to which the Aborigines had access, although it is not clear from the records whether this was port or wine. There is some evidence that gangers also kept beer at their camps and this could have been sold to Aborigines or exchanged for women. Beer did not seem to cause the same degree of alarm either to the missionaries or the police. The police constable who made the inspection of ganger's camps remarked:

A search was made in the aliens' [Italians'] camp for liquor, in their presence. About four dozen bottles of Hannan's lager was found in the camp but no trace of wine...The aliens only drink lightly and use it as a beverage at meals (P.C. Liebelt, correspondence with Railways Commissioner, January 1944).

Drinking and gambling were, wherever possible, concealed from the missionaries, as it was clear that they disapproved and, after all, they were in charge of the food ration distribution and not to be antagonised. Millar and Leung (1974:92), writing of the history of Aboriginal drinking rights, comment that prohibition helped to create a drinking pattern which was related to seclusion and fast drinking, and it could be argued that the circumstances at the soak promoted such patterns. Not only did the missionaries disapprove of alcohol, and Aborigines were breaking the law by possessing it, it was forbidden to the railway employees themselves, as Berkery noted. Drinking, therefore, took on an air of secrecy and conspiracy among both Aborigines and Europeans. Others have suggested that Aboriginal drinking was predominantly a learned affair and that they followed the 'drink or bust' pattern of itinerant White farm workers (Beckett, 1965:38). Although such elements may have been influential initially, we shall argue that the patterns of drinking, far from being imitative, are aggressively Aboriginal in form.

#### The Lutherans

By the time Aborigines were granted the right to consume intoxicating liquor on 1 April 1965 (Millar and Leung, 1974:94), the Aborigines had been resettled on the Diamond Well property for 13 years. However, the new Act excepted Aborigines living on reserves or missions, but there were enough Aborigines living at Diamond Well who wished to avail themselves of their rights to prompt further steps being taken. The Mission investigated the possibility of making alcohol available under controlled conditions, on the settlement itself. A so-called 'local opinion poll' (Hansen, 1972:7) was conducted at Diamond Well, which resulted in an 80 per cent vote in favour of this suggestion. The Lutheran Church mounted a case with the Licensing Court for a licence to sell beer and stout. This licence was granted in the Church's name in October 1968.<sup>3</sup> It is hard, retrospectively, to know

how strong the desire for a 'wet canteen' was among the Aboriginal population. Those who drank had, by that time, chosen port as the favoured drink and, as we shall see, port continued to enter the settlement despite the availability of 'controlled' beer.

Gauging Aboriginal opinion is a difficult operation at the best of times and we have no information as to the exact nature of the 'opinion poll'. Nevertheless, there was probably support for the idea simply because it would make beer available regularly and would involve no travelling for Aboriginal drinkers. The people would be assured of a consistent supply, whereas previously the availability of alcohol was dependent upon other factors - roadworthy vehicles, large amounts of cash. It is probable that the 'wet canteen' idea was instigated largely by Whites in an attempt to control drinking and that the Aboriginal drinkers were happy to comply with the suggestion.

#### The Canteen

The Lutheran Church made a loan of \$20,000 available and Aborigines at Diamond Well, through the sale of artefacts, contributed \$500 themselves towards the construction of a large hall, the 'canteen' which was also to be used as a recreation hall.

The news that a mission had become licensed to sell beer to its Aboriginal charges was met with some surprise. The Australian ran a story at the time headlined 'Teaching with a Bible and a Beer Can' (7 December 1968:12) in which the State President-General of the Lutheran Church justified the exercise. However another and more sinister motivation for the erection of the wet canteen was made clear in a Lutheran magazine. It was stated in an article that:

...if a church wants to retain absolute control of an Aboriginal community, and it can only do so with the assistance of considerable funds, it must be prepared to provide all the services common to the local community (Hansen, 1972:7) (Our emphasis).

These services, it was argued, included the provision of 'optional drinking facilities' which were available to other urban and rural Australians. Although this reasoning was broad-minded, it is remarkable that the Church should so candidly confess its desire to maintain control over a group of Aborigines, and that they chose the provision of drinking facilities as the means whereby this control could be facilitated.

The major public justification put forward by the Lutheran Church was not, naturally, the one stated above. A spokesman was quoted as saying a canteen was 'the lesser of two evils, and we believed controlled consumption of alcohol to be the lesser' (Australian, 7 December 1968:12).

The greater evil was seen as being the running of liquor into the settlement by taxis from the nearest outlet. The Lutherans informed the Licensing Court that taxis had been known to deliver up to 25 gallons of fortified wine to the Mission boundary. It was thought that by making limited amounts of alcohol available and by presenting positive 'behaviour models' the Aborigines could be taught to drink in a civilised manner.

('It is important that Reserve staff who show signs of alcohol abuse should not be tolerated' (Hansen, 1972:8).) A church leader stated:

We are dealing with a total man and, in bringing him Christianity we try to raise his standards of life and try to train him to make a decision for moderation.

By allowing the sale of only two cans of beer per person on four occasions per week, the missionaries hoped to achieve this aim. It was their plan eventually to remove the restriction on the number of cans, presumably when Aborigines had learned moderation. However, this assumption, and the accompanying attempts to deflect the running of alcohol, reveal a gross misunderstanding on the part of the Lutheran Church of the context and purpose of drinking among Aborigines at Diamond Well.

There are indications that even then the Aborigines were determined that their drinking and, more precisely, their drinking behaviour would not be subject to an imposed institutionalisation. This was made clear with respect to the proposed abandonment of restriction on cans. Hansen states that 'in the words of the Aboriginal people' a permanent police officer should then be stationed at Diamond Well, 'so that effective law and order can be upheld' (*ibid*:7). This request (still being made 12 years later) is revealing. It signifies that the Aborigines themselves were acknowledging that 'moderation' was unlikely, and that they were making provision for the control of drunken behaviour, by outsiders. They had decided that such control and intervention would not, or could not, be undertaken by themselves.

In the eyes of the White authorities, however, the sales of liquor and possible extension of such sales would be subject to 'educational programmes'. In a letter to the Department of Aboriginal Affairs in 1979 the Superintendent of Police stated:

Any extension of liquor sales at Diamond Well must be accompanied by correctly structured educational programmes which will instruct the Aborigines: how to drink, the dangers associated with over-indulgence and other areas of concern...

Exactly how this could be accomplished was not made clear. The notion that the Diamond Well people could be taught 'how to drink' has persisted despite all evidence to the contrary.

The Canteen was opened in October 1969, by the State Minister for Aboriginal Affairs, with some ceremony. A pastor who later wrote a history of Diamond Well was quick to point out the 'handsome profits' that soon began flowing in from beer sales. Four years later, after the Lutherans had had their loan repaid, it was resolved by the Board of Aboriginal Missions, that all profits be transferred to a co-operative society for the benefit of the Aboriginal community.

The number of cans and the frequency with which they are given out has changed over the years since the Canteen became operational. From Mr Hansen's original plan of two cans, four times a week, there were alterations to one can per day for men (to which the women objected) and 10 years later, in 1980, the 'ration', as it was called, was three cans on

three days a week, the days being 'pay days', when proceeds from pensions and pay cheque were available. As we shall describe, the actual number of cans decided upon is largely irrelevant, as the Aborigines have devised their own means of stretching and manipulating the flow of beer.

Shortly after the opening of the Canteen, cans began to be used as currency. Those who did not want to drink swapped their beer for boomerangs which were sold to the Mission for cash. Others sold their artefacts to the Mission for cash and then purchased extra beer.<sup>4</sup>

Until recently (1982), beer was used as currency in Two-up games which transformed the ration into a decidedly Aboriginal affair. The Two-up game constituted just one aspect of Aboriginal drinking which has been thoroughly misunderstood by Whites. In the same communication mentioned earlier from the Superintendent of Police, it was said:

...this supply [of beer] is obviously inadequate, as each supply is followed by gambling in an effort to supplement individual supply as a consequence of the winning of cans from the less fortunate players. The gambling is extensive and often leads to ill feeling and fights among the participants.

The Two-up undoubtedly supplemented individual supplies, but it also performed another function which is discussed in Chapter II. The Superintendent's last comment was evidently based on hearsay; in our experience the Two-up games were conducted in an atmosphere of sociability and enjoyment. Continuing the assumption that the Aborigines wanted more beer, the Superintendent went on to suggest that the Canteen should sell keg beer which would 'by its ready availability lessen the desire for fortified wines'. The Diamond Well Aborigines, however, did not choose to restrict themselves to beer, and this should have been clear at the time of his correspondence (1979).

#### Dindara

Port continued to enter the settlement after the instigation of the canteen and has continued ever since. Aborigines had only to travel to the next town 200 km away to have access to a full range of alcohol at the pubs and bottle stores. In 1976 the road to the town was bitumenised and a new roadhouse with its own bar and bottle store was established at Dindara 47 km east of Diamond Well. The journey takes 20 minutes by car. Hardy's Tintara V.O. Invalid Port was available at Dindara by the flagon (\$4) and later by the bottle (\$2.30). With a growing number of Aboriginal-owned vehicles apparent in the settlement, the people had the mobility and independence to run their own liquor from a comparatively close location.

The Aborigines buy their alcohol from the main bar, over the counter. The Manager of Dindara does not encourage credit, although he sells liquor on credit to some mixed-descent Aborigines. On occasions he exchanges port for artefacts. In 1982 one man asked for five bottles of port in exchange for a spear. The manager gave him four bottles instead - to the value of \$9.20.

In the mid-1970s it was not uncommon for 20 to 30 Diamond Well people to camp in the scrub next door to or opposite Dindara to gain easy access

to alcohol. However, in 1977 the police station at a small settlement 110 km east of Diamond Well doubled its manpower and the two new police officers stationed there began to take more forceful action with disruptive drinkers at Dindara. There has been at least one major assault which occurred at the Dindara camp and which resulted in death and subsequent manslaughter charges. By agreement with the police the Dindara management stopped selling port by the flagon and sold bottles instead.<sup>5</sup> Whether either of these factors - the new police officers and the changeover to bottles - had any impact on drinking patterns is hard to ascertain. However there was a distinct and noticeable drop in the number of Diamond Well people requiring hospital attention for alcohol-related injuries in 1977 (see Chapter III). It is possible that police intervention prompted more Diamond Well people to take their purchases back to the settlement rather than consuming them on or near the Dindara premises.

#### The Town

The nearest major town to Diamond Well has a population of 2,300 and lies 200 km away. It has all the facilities of a town, including a drive-in bottle shop and a pub with several bars one of which is frequented largely by Aborigines. Three kilometres out of town is an Aboriginal camp known as 'Emerald Camp' and it is here that a semi-permanent population of heavy drinkers live. Emerald Camp has a variable population, of which a high proportion are Diamond Well people. Its residents are committed drinkers who have registered in town for Unemployment Benefits (UB) which are unavailable at Diamond Well. The availability of UB in town, together with the access to alcohol, act to encourage those Diamond Well people who may originally have been passing through to stay on. Diamond Well people themselves travel to town regularly to attend the hospital or to appear in court, and annual events in the surrounding rural districts attract Diamond Well people. For example, there is an Easter Rodeo at a nearby settlement and seasonal work is taken on by Diamond Well men; all these factors prompt a movement through the town, and often prolonged pauses at Emerald Camp ensue.

Some Emerald Camp people have lost their ties with the Diamond Well community, they no longer have such strongly reinforced kinship links: in effect they cease to be 'Diamond Well people'. To be a permanent resident of Emerald Camp is to make a decisive step away from the pattern of drinking and the uneven availability of liquor on the Diamond Well settlement. It is tantamount to a decision to take on drinking as a purposeful and all-engrossing way of life.

## CHAPTER TWO

## THE DRINKING ACT

Drinking at Diamond Well is an activity directed in accordance with conventions and legitimized by the universally recognised rule that all have the inalienable right to drink and get drunk. Drinking is a social act in which labile groups in aggregation pursue the business of obtaining, allocating and consuming liquor and together act out the consequences of the inebriated state. Drinking takes place in the Aboriginal confines of the camps, away from the settlement, though not always out of earshot of the Whites. Drinking is not bounded by time constraints or conventions which restrict when drinking can take place. When a group wishes to drink, provided it has funds to finance the enterprise and alcohol is available for purchase, then the drinking act can commence.

The Lutheran mission staff, in a vain attempt to control drinking at Diamond Well, instituted the 'Canteen' back in 1970. We have already noted the history of this innovation. A beer ration was issued several times a week. One of the original expectations appears to have been that Aborigines would sit at tables and drink their beer out of paper cups in a civilised fashion. In this way they would 'learn' how to drink, and not feel the need to purchase extra supplies of the more intoxicating port wine from elsewhere. Aborigines set about successfully perverting European Australian aspirations. They transformed an erstwhile educative process into a thoroughly Aboriginal business through the pursuit of which they were able to obtain desired ends.

## The Beer Ration

During most of 1981 the beer ration was meted out on Mondays, Wednesdays and Fridays. Beer was \$1 a can with a three can limit. Profits from the sales went into community funds to pay for trips to homeland areas or other excursions such as the people approved, and the price and ration was generally considered fair by the Aborigines. During one period, when demand for liquor was particularly strong, the Community Advisor increased the allocation to five days a week. However this was soon reduced to three days as people complained about the level of drunkenness in the community.

Prospective drinkers were obliged to give their names and \$3 to an Aboriginal office worker designated to perform the task of listing drinkers' names. Beer was stored in a chiller at the rear of the Canteen, and was given out behind the building to those whose names appeared on the list. No allocation or consumption took place in the Canteen. The rear of the building was well away from the main settlement and most European Australians were oblivious to the sometimes frenetic activity which took place there three times a week. The ration was given out at about 3.30 pm after work had ceased for most Aboriginal employees.

White staff, on the whole, considered 'the beer', as the ration was called, a good thing. After all, 'the beer' provided useful additional revenue which benefited the whole Aboriginal community. It seemed better to provide beer at Diamond Well rather than to force people to go outside of the community and purchase less desirable liquor elsewhere. However, some staff considered that all 'the beer' did was to whet Aboriginal

appetites, and considered they would inevitably want more.

Cans were issued unopened, and could be collected on behalf of friends, relatives and wives. The system was clearly open to abuse. Not only did names appear on the list which did not match people actually at Diamond Well, but non-drinkers could claim their ration and either give it or sell it to others. Per capita figures are hard to recover but we know, for example, that in October 1981 191 cartons of beer were sold through the canteen.<sup>6</sup> This represents an average of 14.7 cartons per ration and, at three cans per person, an average of 118 registered drinkers. This is considerably more than the number of men and women we observed collecting and drinking beer.

Some beer once issued was consumed forthwith. Men and women sat on the ground in small groups and consumed at least one can. This allowed for a general amalgamation of interested drinkers and for the European Australian who had issued the ration to complete his business, lock up the Canteen and depart. Then the drinking business began in earnest.

Some Aborigines left with their ration to drink it in their camps. Most, however, stayed to play or watch the game of Two-up which was an integral part of the afternoon's procedures. A little behind the canteen is a clear patch of ground which is suitable for use for the game of Two-up. Women, often playing cards, sat behind the men who gathered in small groups, and the players stood in a circle some 15 to 20 metres in diameter while play commenced.

Numbers of players varied according to the number of drinkers, but as few as eight or ten were present at times and as many as 35 or 40 on other occasions. These men wagered their unopened beer ration in the hope of multiplying their stake.

Two-up is a game of chance in which the stake is won or lost upon the flip of two coins. One player assumes the role of 'spinner' but retires when two 'tails' are thrown, in which case the task passes clockwise to the next man in the ring who wishes to be the spinner. Bets are placed against the spinner before the throw, and cans are generally bet in pairs. Bets can also be placed against other players by nominating a heads or tails throw. When all bets are placed the spinner tosses two coins (usually 20c pieces) by flipping them vigorously with a piece of broken ruler, so they reach a height of four to five metres above the ground. The coins should land within the circle and if they roll far beyond the perimeter it is a 'no throw'. If the coins are odd, that is one is heads and the other is tails, the spinner throws again. If he spins two heads he takes all the beer bet against him. If he spins two tails he loses and must match the bets placed against him. A spinner may need to borrow cans to cover his debt which may be considerable, though a single win or series of successful side bets will result in a rapid accumulation of cans. Beer is also purchased during the game from lucky winners, who may charge higher prices than the ration price.

The game is played with great vigour and proceeds very rapidly. Beer is reallocated quickly throughout the group of players and, as in many games of chance, it is often the case that some win large amounts while others lose all. Stakes are consumable and participants drink while

playing so supplies tend to run short after some time. When play ceases because of poor light or because people have become tired, a final allocation takes place. Those who have lost may purchase beer from those who have plenty. Since the commodity has become scarce as a few winners have a monopoly over supply, prices are inflated and people pay up to \$4 or \$5 a can. A man who has won many cans of beer will share them with his close friends and kin who are sure of having plenty to drink that night.

The immediate consequences of the Two-up is that the secondary allocation of beer serves to concentrate rather than dissipate supplies. This means that while everyone is certain to drink one or two cans, any surplus is creamed off in the gaming school and eventually becomes the property of the lucky few who share it with a group of consociates. The beer ration, far from fulfilling its original purpose, has become a means whereby Aborigines can pursue a wholly Aboriginal activity which gives everyone the chance of becoming rich in beer.

The business economy of the Two-up pitch involves the exchange of cash for cans of beer and the transformation of cans into gambling 'chips'. Subsequently, the chips are converted into consumable beer which is used for the creating or discharging of social obligations. Alternatively consumable beer can be resold to realise more cash than was first laid out. Cans are then successively reallocated during an evening's play. At the end of an evening's play there is an uneven distribution of a much desired commodity, which distribution is the consequence of the luck of the spinners' coins. The transformational value of a can as a commodity in an exchange transaction varies directly in proportion with its scarcity. The cans are a form of capital which, employed reproductively, are invested at risk and expand with luck, but which are expended with use.

The rules of the Two-up school are few but rigorously maintained. Only unopened cans of beer can be used as stakes, and no cash transactions take place. Women are not encouraged to play, though some do occasionally take part. However, men control the game and take the responsibility for placing bets. Two-up is an Aboriginal affair and European Australians are unwelcome and generally positively discouraged.

Finally, a player can join in or withdraw from the school freely. However if he retires with a large number of cans he is expected either to sell some to those who wish to play on, or to give some cans away in acknowledgement of debts or obligations which are swiftly brought to his attention by would-be beneficiaries.

The end of the Two-up game marks the termination of the first phase of Aboriginal drinking at Diamond Well. The beer ration was ended, by popular demand, in April 1982, and with it the Two-up ceased as well. In Aboriginal understandings the allocation of cans of beer through the institutionalised beer ration is inextricably linked with the reallocation of beer through gambling. To play Two-up without cans as chips is unthinkable.

Once the beer ration is allocated and consumed, Diamond Well is able to provide no additional source of alcohol. Men and women who have come together to drink must then decide either to stop drinking or to fetch additional supplies. The nearest liquor supply is 50 km away at Dindara.

In order to obtain supplies from Dindara a group must have cash, a vehicle and petrol, as well as a driver. Petrol can be obtained from the local Roadhouse, money can be elicited from friends or kinsmen. The problem then is to find a roadworthy car and a good driver.

#### Carting Wine

'Carting wine' as it is known at Diamond Well is a business which involves transactions between contracting parties who exchange cash for transport and port wine for cash or personal favours. The value of the commodity within these transactions depends upon a triadic relationship between scarcity, desirability and the amount of available cash.

Cars at Diamond Well are important for a number of practical reasons including local transport, hunting, the fetching and carrying of firewood and personal possessions, and for going to Dindara. At any one time at Diamond Well there are between six and eight Aboriginal cars. These can be divided into two categories: grog cars and non-grog cars. Most cars are bought locally, a few from further afield. Average purchase price is about \$500 or a little more. Seldom is a car bought for more than \$1000. Owners of non-grogging cars are known to be non-drinkers who do not permit their vehicles to be used for carting wine. However, their owners are approached from time to time by would-be carters with attractive business propositions or even threatening demands. Non-grogging cars tend to have a life-span which far exceeds their grogging counterparts. Two non-grogging cars endured for as long as a year. Grogging cars, on the other hand, last only a few months, and often only a few weeks. Intoxicated drivers are particularly hard on cars, driving fast over atrocious dirt tracks with heavy pay-loads, stopping and starting violently.

Owners who are hardened drinkers may buy a car to ensure the continued supply of alcohol supplies and are seemingly little perturbed by the transitory nature of the life of their car. The owner of a car is he or she who has paid for it. Often a car is owned by several people, particularly old-age pensioners, who have available cash in large amounts and want to enjoy the convenience of a vehicle. Rights in a car, however, may be enjoyed by others who are not owners. If an owner does not drive, which is often the case, he or she must rely upon a chauffeur, usually a close relative like a son who, in return for driving the car, has rights to use the vehicle for his own business. Sometimes a non-drinking group of pensioners buy a car, but lose effective control over it when the driver uses it for carting wine, in which case there is much dissent in the camp and endless disputes over control and use of the vehicle.

A group of drinkers who have decided to pursue the drinking business approach a driver with a proposition they hope he will find hard to refuse. Sometimes the driver is a member of the group already. But, if he is not, he must be recruited to it and recruitment involves inducement. Deals vary with circumstances. For example, a man may agree to go to Dindara provided petrol costs are paid and he has free access to port wine on his return. Alternatively, a less willing driver may charge \$5 or \$10 a head and so seek to make a good profit from the journey. Vehicles which are frequently used for making trips to Dindara for which a charge is levied are known at Diamond Well as 'taxis' and are commonly referred to as such. In our experience, however, profit is not usually a major consideration for

drivers who cart wine. Most drivers are content to recover costs and receive free port and have others obligated to them.

The trip to Dindara is fraught with dangers. As danger multiplies with distance, carting wine from further afield than Dindara is less frequently undertaken. Trucks travel the road both day and night at uncompromising speed. The highway is straight but is narrow with gravel margins and an error of judgement when driving can be fatal. An additional hazard is the police. The local police, stationed 110 km from Diamond Well, visit the settlement and patrol the highway regularly. Aboriginal cars, well loaded and sometimes technically or obviously unroadworthy, are stopped and 'defected'. Once a car is defected it cannot legally be driven until its faults are properly rectified. Many grogging cars are technically unroadworthy or rapidly become so. Some are positive death-traps but are maintained and nurtured by their drivers during the cars' brief lives with skill and ingenuity. A good driver who is also a skilful bush mechanic is much valued by a drinking group.

Police also inspect drivers' licences, vehicle registration and check the sobriety of drivers. Running the gauntlet of the police is such a hazard that wine carters use various devices to avoid unnecessary encounters. There is a network of tracks that can be used as an alternative to the bitumen. However, there is no direct back route to Dindara and tracks are always rough and sometimes impassable in wet weather. All routes involve at least small sections of the main road. Some drivers travelling at night turn off the road whenever they see headlights either in front or behind but, although traffic on the road is never heavy, this ruse makes progress slow and can be impractical since the road traverses areas of thick bush.

#### The Acquisition of Wine

At Dindara there are two bars. The Public Bar is used for counter sales of port to Aborigines. The Lounge Bar is used by European Australians, travellers and locals. There is an unwritten and generally unspoken convention that Diamond Well Aborigines do not enter the Lounge Bar and that European Australians do not visit the Public Bar. If a White stranger goes to the Public Bar he is invited to drink in the Lounge, because it is more comfortable, we were told. The Manager of Dindara told us that some local Aborigines working on station properties did drink in the Lounge and were welcome to do so. Since Diamond Well people appear generally not to wish to visit the Lounge Bar, nor Whites the Public Bar, there is no question of either group being excluded from a drinking area.

The visit to Dindara Hotel is brief. Aborigines stress that they are short of time and must hurry back. Generally, driving after dark is considered undesirable because the main road is understood to be more dangerous at night. Cars often have defective headlights and tail lights, while the huge trucks have powerful spotlights and seldom modify their speed. However, the trip to Dindara is considered as a necessary but dangerous foray into the outside world, and is best expedited as swiftly as is practical. Some drinkers pause for a quick drink of beer in the bar while the port wine is purchased and loaded into the waiting car. Although port is the liquor purchased, it is bought only by the bottle. No port is ever bought over the bar by the glass and consumed in the Hotel. Beer is

the drink for the Hotel. Port consumption belongs to another realm of activity which takes place beyond the world of the European Australian Hotel and is confined to the Aboriginal drinking camps.

#### The Drinking Camps

The serious drinking of port wine requires a safe camp. The ruses and devices employed while carting become harder to sustain when full inebriation is attained. Serious drinking is a state of vulnerability, and the drinking group takes steps to protect itself from harm. Moreover, a state of excitation requires a free arena for demonstrable actions, and this cannot be obtained under the control or scrutiny of Whites, police or community staff.

A safe camp should have several attributes. It needs to be away from the main road and secluded, yet have convenient access and egress. It needs to be close enough to the main camps so that in the event of injury or accident help from non-intoxicated friends can be summoned. Some drinking groups formerly drank in the bush close to Dindara and maintained camps there for several weeks at a time. This was because they lacked transport, so if supplies were to be maintained they were obliged to camp close to the outlet. However, Aborigines were discouraged to do this by both the police and the hotelier since drinking bouts were said to upset tourists. For their part, Aborigines felt isolated and vulnerable when drinking so far from the settlement. Currently Aborigines probably have greater access to cars than formerly, so it is now usually possible to cart port and drink it at Diamond Well.

On one of the bush tracks linking the main road with the settlement are a number of open areas in the scrub used by drinkers on their return from Dindara. Here port wine is consumed by drinking groups of five or six men and women. Later, unconsumed supplies are taken further into the camps to be sold to other drinkers who had placed their orders earlier on. Port wine costs \$2.30 a bottle at Dindara, but its resale price at Diamond Well may be as much as \$10 a bottle. Once the allocation has taken place drinking continues until all supplies are consumed. Depending of course on the quantity obtained, a good drinking bout will last up to twelve hours.

#### Drinking

The actions of the drinking set are those of the inebriated who have lost inhibition and direct control over their motor functions, speech and mental faculties. They have become transformed and adopt roles which are recognised as being quite different from those assumed during other non-inebriated periods. In contrast to sober discourse, the verbal exchanges of drinkers are often made in English. English is the language proper to the intoxicated man and when necessary its range of invectives and blasphemy are utilised with facility. Drinkers form small groups of between five or ten persons and generally sit protected by small bushes or shrubs in a group while the bottle is passed round. The progress of the bottle is unpredictable, but each drinker takes a generous swig before handing it on. Empty bottles are cast aside, often breaking where they land, and are sometimes reclaimed later on for use as weapons.

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Drinking is considered a means whereby assignations can be made and expedited. A couple, by prior arrangement, can surreptitiously leave the group and have intercourse in the adjacent bush. Some men purchase wine which is given to younger women in order to render them inebriated in the hope that they will become more compliant. Women have some protection in that a good drinking camp is always adjacent to kin and help, and any cries for help are likely to be answered. Women are considered foolish if they drink alone with a group of men. In our experience there was only one case of gang rape at Diamond Well during a drinking spree and three of the assailants were later arrested and brought to trial. However, sexual licence during drinking undoubtedly contributes to interpersonal disputes and conflicts which often mark the climax of a drinking spree.

Drinkers seldom sit still. There is a constant movement between drinking groups, discussion and debate, shouting and complaint. Drinkers embrace each other freely, hold each other up, lie upon each other and caress one another. Drinkers often declare they are hungry and set out to demand food from non-drinking members of their family or from friends. Sometimes in the dark a man or woman stumbles off and becomes lost, shouting and crying for help and direction. Sometimes drinkers claim they have seen spirits in the night and cry out hysterically in alarm, demanding help and rescue. A drinking camp has a quality of noise, disruption, hurried movement and altered states of mind and body that mark it off as fundamentally different from any other camp.

#### The Social Ordering of Drinking

There are rules fundamental to the organisation of all drinking at Diamond Well. When rules are broken there is complaint and dissent, sometimes resulting in physical confrontation. However, disputes over the maintenance of rules are complicated by matters of responsibility. We return to this shortly. The first rule concerns recruitment to the drinking group.

Children or youths under the age of about 18 are not expected to be taken on carting expeditions or drinking sprees. Drinking is an adult activity and to place a child or youth in danger by recruiting him to a drinking group is considered bad and punishable. We were told that an abandoned car had been deliberately set on fire where it had crashed because it had been used for a wine carting expedition which involved a youth, considered to be too young for such activities. The boy's foster-father was responsible for the arson.

Secondly, drinkers are expected to avoid drinking at certain places altogether. These include the camps which are designated 'dry' by their occupants who eschew wine, and certain 'holiday camps' should be grog-free. In the school holidays the people often move even further away from Diamond Well to one of several favoured camping spots. At such times life is very relaxed, activities tend to be oriented around the children and men and women engage in hunting and foraging expeditions away from the dust and unpleasantness of Diamond Well. However, the peaceful nature of these camps can be short lived and one car bringing in wine or drinkers can produce disruption and violence in such a place. Drinkers are expected to avoid the settlement itself which, after office hours, is the domain of

European Australians who resent noisy drinking bouts which upset their evening's and night's peace and quiet. Further, there is the rule of equal access. All those who drink are obliged to share their supplies with other drinkers once the initial allocation and cash transactions have been completed. To refuse a fellow drinker a swig from the bottle breaks the etiquette of Aboriginal drinking.<sup>7</sup>

A fourth rule has to do with diminished responsibility. The declared intention of drinking is to get 'full drunk' and intoxicated persons lack self-control and any rational inclination to act according to procedural rules. Aborigines understand then that a non-intoxicated person should assume responsibility on behalf of a drunk and ensure he conducts himself in a manner not dangerous to himself or others. The rule of diminished responsibility can be explained as follows.

The altered mind state of the intoxicated person is recognised by speakers of the local language by the use of the word kakiri, a term which is roughly translated by our word, 'intoxicated'. A drunken person's actions are para punkarni, which means literally, 'falling around'. A drunk is a man who is para punkarni and who has lost reasonable control of his movements, his speech and his reason. There is no intermediate state. People who have drunk a little and are merely tipsy are not classed with drunks. Being drunk involves a particular way of behaving, and if one is to be recognised as a drunk then behaviour must be evident to onlookers. Drunkenness is then a social state which can be assumed as well as induced by drinking.

All drinkers who become drunk can be divided into two categories. These are 'good drinkers' and 'bad drinkers'. A good drinker (palya tjikinyi) is one who drinks and gets drunk without causing damage to others or himself. A bad drinker (kuramata tjikinyi) is one who frequently ends up involved in physical assault which results in injury either for himself or the person attacked.

An aggressive drinker is described as pikarti (aggressive) a term also used of vicious dogs or other animals which will attack or bite. An aggressive drunk is also known as pika punganyi which means literally 'sick hitting' and can be translated as 'violent'. The stem pika means sickness or anger, but is considered by Aborigines to include a concept of alien possession and deviance from the norm. A sick person is pikatjara (pika + tjara: having), a man who is not himself, and cannot be expected to behave or act in an ordinary way. A drunk who merely falls about (para punkarni) is likewise treated as someone who is sick. Sickness and drunkenness are considered to belong to the same condition. Drinkers are recognised as not being fully responsible for their actions. People drink to transform themselves into non-mundane states where rational actions are potentially abandoned. Consequently irrational and violent acts are to be expected of a drunk. The social organisation of drinking, then, is a matter of predicting danger and forestalling damaging and potentially fatal interactions by the application of procedural rules administered by non-drinking consociates who assume responsibility on behalf of drunks.

At Diamond Well there are some who decline their right to drink. Moreover, not everyone gets drunk at the same time, and some have higher tolerance levels than others or perhaps imbibe less. The line which

divides the responsible from the irresponsible in drinking affairs is one of relative sobriety and capability. A principal rule then governs the care of drunks by their more capable and competent kinsfolk who accept responsibility for the intoxicated. Kinsfolk and friends have a double responsibility: to protect the drunk from excesses of his own drunken state and to feed him and give him hospitality and rest. A drunk who needs food, shelter, warmth or covering cannot be refused by close friends for fear that he die of exposure, falls into the fire or chokes on his own vomit.

A further rule concerns the protection of drinkers from physical harm and violence. It is understood that drinkers may become argumentative, angry and sometimes violent. In the event of a fight breaking out people must be protected from each other by consociates who are either not drunk, or drunk but not angry. Anger (tjuni kura, literally 'bad stomach') is the state which may lead to violent assault and even homicide. Drinkers then should remain in company with others who are witness to their acts and can intervene if necessary to avoid violent assault. Fights are permitted and are common, and intervention only takes place if the matter appears to be getting out of hand. The social act of drinking is one whereby people who have lost their reason are protected from one another. When drinkers either move away from their consociates, or their friends are not vigilant, the consequences of a drunken brawl may be serious injury or even death. In our understanding, men and women who are 'full drunk' do not necessarily adhere to conventions which govern combat and prohibit, for example, a direct blow on the head with a sharp instrument, or a stab wound in the chest or abdomen. However, if a fight is in full view of others, and monitored by those who will intervene if necessary, serious or fatal injuries are less likely to occur because of the intervention of those in attendance. Those who go off in pairs for licit or even illicit sexual liaisons do place themselves in jeopardy because their acts are private and not public and a woman may place herself beyond the help of friends in these circumstances.

Drinking is a business governed by rules, though these rules are observed in practice, not verbally declared or otherwise set out. At least two of the rules are the concern, not of the drinkers themselves, but of non-drinkers or non-intoxicated men and women who have an interest in the welfare of the drinkers. Thus sons, wives, brothers and close friends are expected to intervene to ensure the safety of drinkers. When things go wrong, or rules are broken, the results can be disastrous.

However, from Aboriginal perceptions, it appears that physical harm is deemed to be a consequence of lack of vigilance on the part of consociates rather than the drunken excesses of an assailant. Such acts of violence are understood to be the results of drinking and must be anticipated and so guarded against. If remedies are to be found to correct the damage that drinking causes these are understood by Aborigines to lie in the proper maintenance of rules and procedures, not in the abandoning of the drinking enterprise.

We have noted Aborigines intervene in drunken fights on many occasions in order to prevent bloodshed, though often their presence is enough to prevent the fight from degenerating into a bloody fray. Aborigines intervene to remove drunks from the settlement, or from 'dry' camps, where their presence is causing alarm and discomfort. Unlike our own society,

where drunks are shunned and ignored, Aborigines care for their drunken friends and, as they put it, 'look after them'.

According to Aboriginal understandings the rules that govern drinking are used in a variety of ways, but they are also circumvented by recourse to a number of ruses. Since it is not generally acceptable to reject demands from drunks for help, succour or aid, the only way to counter their sometimes unreasonable requests is to avoid encounters with them. One device employed is to camp some distance from the drinkers' camp and make it generally known that the camp is a 'dry' one. While this process works well up to a point, a 'dry camp' is constantly subject to nocturnal visits from drunks who, having finished drinking, seek wives or husbands. If a predominantly non-drinking family has only a single member who drinks heavily it is difficult if not impossible to turn him away in the early hours of the morning when he returns home. His return, even if he observed the rules which prohibit the importation and drinking of wine in a 'dry camp', is likely to be noisy and potentially violent. Non-drinkers seek to avoid attracting drunks by 'shutting up', that is by putting out their fires which attract drunks in the dark. In the scrub which surrounds Diamond Well it is difficult at night for drunks to locate individual camps unless there is a bright fire to guide them. Putting out the fire helps ensure that drunks do not head for the camp guided by the firelight.

In the event of a drunken visitation a senior man in a dry camp will act vigorously to maintain the reputation of his camp as a place to which drunks do not go. The recognition that a camp is 'dry' is used by its inhabitants to justify the exclusion of drunks who attempt to visit it, and this is sometimes an effective means of persuading them to go elsewhere. However, exclusion by coercion is seldom even considered because it would result in a violent fight. A senior man or woman in a camp demonstrates his or her opposition to the invasion of drunks or to the drinking misdemeanours of fellow campers by making public statements of their displeasure, and by making threats as to the dire consequences of drunks repeating their disruptions. These statements are often made during a ritualised monologue which usually takes place after dark when everyone is in their bush shelters, and is known as a tjunparni or 'growl'. It may also take place in the early hours of the morning, just before dawn. The tjunparni is a statement of authority and an expression of dissatisfaction with a promise of subsequent retribution to remedy wrongs if they occur in the future. The 'growl' is always performed after a drinking incident, never during one, since drunks are regarded as being beyond ordinary discourse and might respond facetiously or even violently to the tjunparni. A senior camp resident cannot afford to risk a situation where his authority is seen to be the object of drunken derision.

The 'growl' and the associated rattling of spears which sometimes accompanies it may be effective within the confines of a 'dry camp', but the jurisdiction of a camp resident does not extend to other camps where he is not living. The institutionalised 'growl' is an important way by which some men and women attempt to establish and maintain their authority within their own camps by demonstrating their moral strength and opinions. However, as a real deterrent to drinkers or a method of physically controlling them it is of limited effectiveness and, in our experience, very often makes no difference to the intrusion of drinkers into a 'dry camp'.

### Community Control: The Problem of Deflected Responsibility

The consequences of long and heavy bouts of sustained drinking are understood to be sometimes unfortunate, occasionally fatal. The undesirability of heavy drinking is endorsed by the White staff who often suffer directly from the effects of drunks who turn their aggression on their persons or on their property. Broken windows are a fact of life in the settlement, and physical assaults on White staff are not uncommon.<sup>8</sup> During these periods of heavy drinking it became almost impossible to run the office, and there were few sober workers available for employment.

Since Aborigines at Diamond Well recognise the incontrovertible rights of all to drink and become drunk, community control is a myth probably generated by European Australians in pursuit of so called 'management programmes'. Drinking is a matter for aggregate responsibility and cannot be subject to corporate sanctions. This can be explained as follows. Diamond Well is composed of disparate and labile groups who come together to be serviced and catered for by a group of European Australians. Each Aboriginal group is recruited for a particular business and has its own autonomy which is not subject to sanction or jurisdiction by other groups. This is an aggregate group. Moreover, there is no corporate jural body composed of Aborigines who could work to stifle the enterprise of drinking. Aborigines publicly assent to the idealised notion, at least on some occasions, that the wishes of the non-drinkers should be accommodated so that the disruptive effects which are the consequence of drinking bouts will have a minimal effect on non-drinkers and the European Australians. However, unilateral accommodation requires corporate sanctions. In the absence of a corporate body with jural propensities the Aborigines are powerless to effect accommodation. They attempt to solve their problems by asserting that it is the Whites' responsibility to manage corporate affairs. Until quite recently at least the Missionaries and others were only too pleased to assume this responsibility. Latterly, however, Aborigines have been encouraged by advisers to remedy the disruption and chaos which is from time to time the result of heavy drinking. Community and Council meeting minutes contain many examples of suggestions as to how to curb drunkenness. Their failure can now be clearly understood. Aborigines consider that drinking is a right of all residents at Diamond Well. It is further understood that individuals may be obliged to help and protect drunks. The matter cannot then be resolved by either banning liquor altogether or by prosecuting the drinkers. Unwilling to exert real control over alcohol consumption or the actions of drunks, Aborigines have devised a series of rationalisations and pseudo-remedies which do not infringe upon the right to drink and become drunk, but which do appease European Australian demands that something be done.

On several occasions Aborigines have agreed to act as inspectors, gatemen or watchmen, and patrol the main road and access roads and prevent grogging cars from entering the precincts of the settlement or passing beyond to the camps. The problem with this method of control was that it necessarily involved individuals in direct confrontation with wine carters and drunks, and they had no power, apart from that provided by their own strength of arms, to support their assumed authority. While the 'vigilante' method has had limited success on two occasions in our experience, it has never been sustained because of an absence of volunteers

who are prepared to take the law into their own hands and deny friends and kinfolk the right to drink in their own home.

In general, the Aborigines prefer that the police fulfil the role of patrol officer and keeper of the peace. However, police can arrest only in cases of disorderly conduct, assault and so on, but cannot, for example, arrest a person simply because he is taking a load of port wine into a settlement. While many Aborigines welcome police intervention when a drunk is running amok in the settlement, attitudes to the police remain cautious, probably because so many Aborigines have bad memories of the treatment they have received in the past at the hands of various policemen.

A second approach has been to ban drinking from the settlement and adjacent camps, and to designate an area some distance away where drinkers can camp and get drunk. However, obligations to look after drunks were a matter of concern, and on one occasion we learnt that a scheme to have drinkers camp some 10 km away from Diamond Well had been abandoned because people were afraid of the consequences of unsupervised drinking.

#### Aboriginal Christianity

The decision to stop the 'beer' in April 1982 was a part of a larger Aboriginal movement that had to do with belief, conviction and social activity. An Aboriginal-inspired Christian revival first appeared at Diamond Well in December 1981, and then again in March 1982. Increasing numbers of Aborigines began to subscribe to the beliefs of fundamentalist Christianity, and pledged a commitment to reform their lives. The results were salutary. Hardened violent drinkers gave up port wine and beer, men who were virtually dead from the effects of years of drinking stopped and recovered their vigour. Whole camps which had previously been strongholds of heavy drinkers and scenes of night-long drinking and fighting, shouting and assault became places of peace and relaxation. Sales of port wine slumped at Dindara, and the Community Council, elected in July 1982, was a wholly Christian body who pressed for a dry area in the immediate vicinity of the settlement. Drinkers, for the first time in our experience at least, became a minority.

Some groups continued drinking and the relationship between drinkers and non-drinkers remained the same in that there was no question of denying anyone who wished to do so the right to drink. However, one significant thing had changed. An activity had been abandoned by many which had formerly been an obsession. Drinking business had been given up by a large sector of the population, and the physical and social effects which had so marked the community during our time there were largely absent. We subsequently learnt that the abandonment of heavy drinking lasted during the remainder of 1982 and continued into 1983. However, sporadic drinking bouts were reported in 1983 and by the latter part of that year heavy drinking had again become a major feature of life at Diamond Well.

## CHAPTER THREE

## THE HANGOVER - THE MORNING AFTER

## INTRODUCTION

## Populations and Purchases

Having approached the issue of drinking from a purely anthropological and social perspective, in which we have placed the drinking act in its context as a business and an enterprise of its own, we now turn to its aftermath. We noted earlier an avoidance of consideration of the dysfunctional aspects of drinking on the part of some social scientists, and wish therefore to balance our own account.

Despite commonly held assumptions that Aborigines cannot hold their liquor, there is at present little or no evidence that Aboriginal people as a race consistently differ physiologically in their reactions to alcohol from European Australians (Marinovitch *et. al.*, 1976). Apart from this notion that Aborigines are somehow less able to control themselves when drunk, there is, on the part of Europeans, often the idea that Aborigines become drunk on very little alcohol.<sup>9</sup> Wilson, in his book on violence on Queensland Aboriginal reserves, refutes this notion, giving figures on alcohol consumption from one reserve, of two and a half gallons of beer (20 stubbies) per person per four-hour session. He comments:

Serious doubt should be cast on the popular assumption suggesting that Aborigines cannot hold their liquor. They drink so heavily and for so long it is amazing that many can stay on their feet and not collapse (1982:52-53).

Another study quoted by Wilson questioned participants in an Alcohol Relief programme in Cairns, Queensland. Half of the residents reported that they drank daily and one in four said they would drink more than ten bottles of beer daily. One quarter of the men said that they drank more than six bottles of wine per day, and one in twelve drank more than four bottles of spirits a day (*ibid*:54). Notwithstanding the exceedingly difficult task of ascertaining the amounts of alcohol drunk by a given individual at any one time, we were able to gain some intimation of the amount of liquor purchased by Diamond Well people from the Dindara Hotel. This led us to the conclusion that drinkers at Diamond Well consumed large amounts of fortified wine, as well as beer from the Canteen.

## The Drinking Population

The 1981 Census gave the following population figures for Diamond Well:

Males	145
Females	<u>134</u>
Total	279

The over-18 (drinking age) population was:

Males	83
Females	<u>82</u>
Total	165

In 1977 the Lutheran Superintendent who had resided at Diamond Well for 15 years made a submission to the House of Representatives Standing Committee on Alcohol. In this submission he estimated there to be 139 'excessive drinkers' out of an adult population of 226. While he did not define excessive, and it is clear that his figures were not based on any substantive data, his opinion indicates the perceived extent of the problem.

We estimate that there were approximately 80 men and 20 women who drank alcohol regularly at Diamond Well during the period of our field work. The numbers fluctuated according to movements of sections of the population to other areas, primarily Emerald Camp, and other Aboriginal communities. There were also visitors from these places staying at Diamond Well. Visitors are eligible to put their names down on the beer list for their ration of three cans from the Canteen on three days a week.

In our experience there was only occasional 'under-age' drinking. The right to drink was, in Aboriginal understandings, not extended to those under 18. Adolescents, and particularly young children, engaged in the sniffing of petrol - and it was clearly understood in the community that petrol-sniffing was a childhood occupation, drinking was for adults. One woman was heard to chide her older teenage son for petrol-sniffing, 'You gotta leave that petrol. You old enough to drink now.' Petrol-sniffing was first noted at Diamond Well in 1976 and has been apparent sporadically since that time.

#### Amounts of Beer

Thanks to the co-operation of the Community Accountant we were able to have access to administrative records which showed that the beer ration can amount to as many as 20 cartons on a pension day, which is 500 cans (187.5 litres). Beer is sold at \$1 per can and in one sample month beer sales amounted to \$4,582. As we have described in Chapter Two cans are redistributed through cash and gambling exchanges. The actual intake of beer per individual is therefore virtually impossible to deduce.

#### Amounts of Port

In interviews with the present Manager and a past Manager of the Dindara Roadhouse we were told that fortified wine is delivered by the pallet, each containing sixty cartons. Up until 1977 flagons of fortified wine were sold at Dindara. A flagon contains two litres. Each carton delivered to the hotel contained four flagons. When Dindara opened its doors in 1976 on the newly bitumenised highway, Diamond Well Aborigines were buying sixty cartons of port per week from Dindara, making a total of 240 flagons of port (480 litres) per week. When Dindara stopped selling

flagons in favour of bottles (750 ml) at the request of the police, the Manager told us that the Aborigines purchased the same quantity of port in the more expensive bottles - money was not an issue.

In 1981, the average weekly sales of port were thought to be thirty cartons of 12 bottles each, that is, 360 bottles per week (270 litres). However, it was admitted that during some months of really heavy drinking the figure could be twice that. When the Christian movement became popular in 1982, large numbers of Diamond Well people gave up drinking as it became identified with sin and was considered to be bad. As a consequence sales of port were drastically curtailed. As the Manager wryly commented, 'They've started buying guitars instead of booze.'<sup>10</sup> His estimate of sales of port as at August 1982 was that the Hotel's stock of 60 cartons lasted for about eight weeks, bringing actual sales to approximately 90 bottles (67.5 litres) per week. In summary, then, port sales estimated by the Roadhouse Manager were as follows:

Year	Amount sold per week
1976	60 cartons = 720 bottles (480 litres)
1981	30 cartons = 360 bottles (240 litres)
1982	30 cartons in 4 weeks = approx. 90 bottles (67.5 litres)

#### Estimated Expenditure on Alcohol

In one month, October 1981, residents of Diamond Well who were entitled to wages, social security benefit or payment for artefacts received income as follows:

Total wages (C.D.E.P.*etc.)	\$ 14 840.00
Pensions, endowment etc.	22 516.00
Other income	2 205.00
Total	\$ 39 561.00

In the same month money was spent as follows:

Store takings	\$ 26 308.00
Beer sales @ \$1.00 per can	4 582.00
Total	\$ 30 890.00

\*C.D.E.P. is a bulk payment made to the community to be payable as wages, in lieu of unemployment benefits.

This leaves the sum of \$8 671 not spent on beer or in the store. Now, we know that there was generally heavy drinking during October. Allowing for other purchases, at the Roadhouse or in town, and for money saved privately, it is conceivable that most of this amount, say \$6 000, was spent at Dindara in one month. Further, the Dindara Manager guessed that Diamond Well people spent up to \$2 000 a week there at drinking times.

In summary then, with a drinking population of approximately 100 people, we guess that expenditure on fortified wine prior to the Christian non-drinking trend varied from approximately \$3 000 to \$6 000 per month. During a peak drinking period (October 1981) \$4 500 was spent on beer. During periods of heavy drinking, then, as much as \$10 000 may have been spent on alcohol and, during October 1981, this would have been approximately one quarter of the population's income.

#### THE SOCIAL AFTERMATH OF DRINKING

##### Aborigines

There is no doubt that Aborigines who were not involved in the drinking business were constantly disturbed, displaced and impinged upon by the actions of those who were drinking. We have mentioned the strategies employed by people in attempts to avoid confrontation and disturbance. Even though Aborigines organised their drinking in specifiable ways, nevertheless there were many occasions when women were frightened and threatened by drunken men; children were disturbed and sometimes maltreated, and life was generally tense and uneasy as a result of drinking. Women married to heavy drinkers were expected to stay with them and look after them. Some were too frightened to leave, saying their husbands would pursue them (see also Bell & Ditton, 1980:17).

Children were sometimes mistreated at Diamond Well by parents who drank heavily and there were at least two cases in which the deaths of children were attributed to the chronic drinking of the parents. Both came from the same family: a girl aged two years died in 1972 for 'failure to thrive' (Clinic definition) and another daughter died in 1977 after falling in the fire while the parents were drunk.

Children were sometimes left behind at Diamond Well while their parents took up residence at Emerald Camp. Sometimes this was a satisfactory arrangement but sometimes such a child did not receive adequate care from the relatives assigned to the task. It was under these circumstances, (particularly if the other relatives were themselves drinkers) that Diamond Well people emphasised the role of the real or

biological parents, and criticised in public their failure to care for their children regularly.

At Diamond Well, people use specific vernacular terms to designate their kin. A person calls his mother and his mother's sisters by a single term - nguntju, and his father and his father's brothers by a second term - mama. So a Diamond Well child would have several 'mothers' and 'fathers' while being aware of who his biological parents are. This system of classificatory kinship reduced the exclusivity of the categories, as Hamilton has pointed out (1981:92). The resources of relatives who are asked to care for other people's children were frequently stretched. One 10-year-old boy was often seen to be alone at the settlement after others had returned to their camps in the evenings. His parents were Emerald Camp residents and, despite having other relatives at Diamond Well, no one seemed prepared to care for him consistently. He became a chronic petrol-sniffer and appeared in the Children's Court on several occasions. He was finally taken out of Diamond Well by the Department of Community Welfare to be fostered by Whites in a southern capital.

The categorisation of 'neglect' is not an easy one to make. In fact Hamilton has termed it 'wholly inappropriate' (1982:62).<sup>11</sup> Aboriginal children are independent and self-sufficient from an early age and are allowed to roam the camps freely. 'Bed time' is not the major issue that it often is for Europeans, and children may sit around in the cold and wet wearing few or sometimes no clothes at all. Sores and infections were common at Diamond Well and their presence did not signify that a child was neglected.

Children missed meals when relatives were too drunk to prepare food. Although it was quite acceptable for children to seek out and share in food at other camps if they were not present at the right time, it was likely that they could be left out. Because drinking took place at camp rather than in the settlement, children would sometimes stay in the settlement in the late afternoon, hanging around after school. It was on these occasions, when several children stayed together in the evening at the settlement, that they engaged in petrol-sniffing or tried to steal cars and food (see Prady and Morice, 1982:72-88). To this extent adult drinking did affect the activities of the young: they were simultaneously avoiding drunks, while obtaining food and excitement. The appointment of a European youth worker had, to some extent, alleviated this - his house was being used as a drop-in place for children not at their camps.

Whatever the true situation, Europeans and Aborigines alike attributed to the drinking behaviour of parents the anti-social acts of their offspring. Frequent drunkenness was scapegoated as being the 'cause' of problems such as petrol-sniffing and stealing. This was despite the fact that some of these disapproved acts were also performed by children who came from non-drinking families. Like Europeans, Aboriginal people would like to give reasons for otherwise inexplicable behaviour.

Whites

The regularity of settlement-based incidents (fights, broken windows and abuse) also had its effect on the White staff. On a small and isolated settlement troubles of this kind, together with frequent break-ins and car

stealing by teenagers, were intensified. The situation was particularly difficult for new staff, for it took time to become part of the way of life on such a settlement. It took time and patience to become used to the many unexpected and sometimes undesirable incidents and interactions that occurred. In a sense, it was to the detriment of the Aboriginal population itself that the survival of some staff members was short-lived, for the people preferred staff who they had known over a lengthy period of time. With the demise of the mission in 1975 and its staff members who were motivated primarily by Christian beliefs, it became more difficult to attract staff who would be hard-working, sensitive and yet willing to endure assaults on their property and occasionally on their person. In the four years that one of us (M.B.) was associated with the community, there was a complete changeover of staff apart from two school teachers and two nursing sisters.<sup>12</sup>

#### Violence, Visibility and the Law

It has been suggested by some anthropologists that drunkenness performs a useful and consolidating function when tension and dispute exists in social groups. Lemert (1958), Swed (1966), Robbins (1973) and Myers (1976) provide evidence to support this view. Myers states that Pintupi men who had grievances against each other usually ended up fighting when they were drunk. However such disputes were quickly forgotten because people were not held responsible for their actions. If the antagonists had been sober, the interactions would have caused more tension and further dispute (quoted in Stead, 1980:69).

At Diamond Well drinking offered people opportunity for a series of social exchanges and to express enjoyment, laughter and affability. Drinking enabled marital disputes to be aired, usually in the relatively safe environment of daytime at the settlement, with plenty of onlookers about. In general this ensured that no serious harm could ensue. It was only when both parties were inebriated and either out of earshot of help or surrounded by equally drunk others that serious injuries and death tended to occur. Drinking also enabled men to assert their prominence over boys in drinking groups and in their control over the membership of such groups.

To some extent Diamond Well people, as with the Pintupi, made allowances for what people did when drunk. A woman explained to one of us that her husband 'didn't know who he was talking to' when he abused and beat her the night before, and said that he couldn't remember anything the next day. On the other hand a man who had served time in gaol for manslaughter and who persisted in committing violent assaults when he was drunk was known as a 'murderer' of whom people were frightened. His behaviour, far from dissipating tension, caused severe anxiety.

Diamond Well people, when drunk, fight with European tools which become weapons and although in some circumstances cultural rules affect the scope and severity of the injuries, in many others no holds are barred. At the point when a serious assault is drawn to the attention of the Clinic, or the Community Advisor, there is the growing likelihood that the police will become involved. The reporting of incidents does not occur as a matter of course at Diamond Well. By far the majority of incidents, the results of which appear as injuries in the Clinic data, would have passed unrecorded as criminal offences.<sup>13</sup> In serious cases of bodily harm (any

assault treated by a doctor) and grievous bodily harm (an injury which nearly causes death) White advisers would encourage the victim to make a complaint.

At the point when the police become involved, the drinking act and its aftermath, which up until then had been contained within an Aboriginal realm and existed according to Aboriginal rules, becomes transformed into another sphere altogether. The incident and its context ceases to be an Aboriginal matter and becomes lodged within a European framework of police statements, custody, bail, court appearance and penalty.

The police visit Diamond Well once a week as a matter of course and attend on request when possible. The Aborigines themselves on occasions ask that the police be sent for. There have been requests that police be stationed on the settlement itself. By such requests some sectors of the Aboriginal community further stress that it is not their responsibility to deal with the violence that can follow drinking. In view of our earlier comments explaining the limited jurisdiction of individual Aborigines over the affairs and disputes of others, it can be seen that the police fulfil a useful function. To call for the police to sort out a melee that is in process or to haul away the participants once it is over is to relieve others of a sometimes delicate and unwanted task. However, Aboriginal people at Diamond Well do not have easy access to the police, particularly for incidents occurring at camp, which may be some kilometres away from the settlement. There are no phones outside the settlement, requests for police presence must be channelled through the administration. Moreover, it takes the police one hour and fifteen minutes to drive to Diamond Well. For these reasons the police arrive, for the most part, after the event.

Living at Diamond Well are those who will intervene (at times) to prevent or curtail violence. Moreover the settlement itself provides a sanctuary obscuring such incidents from the gaze of the outside world. Beyond this protection Diamond Well Aborigines are subject to greater surveillance and scrutiny and are therefore liable to come under the jurisdiction of Europeans and European law. Diamond Well people who move drunkenly or violently into public space, at Dindara or in town, are exposed and vulnerable, as are the Wallaby Cross residents of Sansom's study when they move into the 'common pitch'. Sansom states:

A distant place is generally associated with particular orders of social action and particular orders of risk...grogging of itself is dangerous. Hard drinking leads to diminished responsibility and grogging in company carries the danger of sparking drunken brawls. The police and the public have their interest in public drinkers (1980:57,58).

Dindara is closer to the police station than is Diamond Well, and the publican, within sight of the usual drinking place next to the pub and concerned about his tourist clients, can easily phone through a complaint of drunk and disorderly behaviour. In town, Aborigines are subject to the disapproving eyes of a White rural population generally intolerant of its Aboriginal fringe-dwellers. If an incident is witnessed or if a White complains, an Aborigine will inevitably be charged - although not all charges will result in convictions.

There was a rise in alcohol-related Aboriginal court appearances at the town court from 397 (34 percent of the total court appearances) in 1980 to 688 (58 percent of the total court appearances) in 1981. The Clerk of the Court attributed this rise to the high numbers of Diamond Well people who had that year sought unemployment benefits, unlimited access to alcohol and residence at Emerald Camp. These figures confirm that once Diamond Well people cease to drink in the protection of their camps in the safety of the bush, they are liable to be arrested and prosecuted by the European legal system.

#### THE PHYSICAL AFTERMATH OF DRINKING

##### The Clinic Data - Methodology

Clinic records provided two perspectives. One was a long-term picture of alcohol-related illnesses, injuries and deaths since 1976. The other was a more detailed short-term view for the six-month period January to June 1982. The 1976 - 1982 information was compiled for us by the Clinic staff from their records. The six-month data was compiled from a simple questionnaire completed by the duty nurse for each alcohol-related consultation over that period (see Appendix I).<sup>14</sup> These questionnaires were completed under difficult circumstances, for at times the nursing staff were grossly overworked - during a hepatitis outbreak, for example, or when one of the sisters was on holidays. Three different sisters completed questionnaires over the six-month period.

There may be inaccuracies and shortcomings in the data for these reasons. However we were able to gain an overall picture of the extent of consultations which, in the opinion of the nurses, concerned alcohol-related injury or illness. It is probable that many ailments and some minor injuries passed undetected and were not reported to the Clinic.

Diagnoses would be made where possible by nursing staff, although in some cases they did not feel able to make a definite diagnosis. A doctor visited the community by plane every two weeks to conduct clinics. The nearest hospital is in the town and all fractures, serious burns or lacerations, severe gastro-enteritis and illnesses were evacuated there by private car or the community ambulance.

We make relevant comments alongside the data where possible, in order to integrate our knowledge of the circumstances surrounding some of the events with our presentation of the statistics.

We first consider the data which covered the six and a half year period January 1976-June 1982.

##### Evacuation to Hospital

Patients are taken to hospital in town if their injury or illness is considered too severe to be treated at the Diamond Well Clinic. Fractures along with lacerations requiring more than a few stitches are always sent to hospital, as are serious burns. Those injuries designated as bruises presumably required observation, or X-ray for possible fractures, tasks that can only be performed in hospital. 'Other' signifies such mishaps as

dislocations, observation after motor vehicle accident, etc. Table 1 shows figures for evacuations to hospital for the period January 1976 to June 1982, covering injuries and illnesses considered by the Clinic staff to be alcohol-related. Table 1 (a) gives this data for men.

Table 1 (a)

A breakdown of alcohol-related injuries and illnesses requiring evacuation to hospital, 1976-1982. MALES N = 59

YEAR	INJURIES				ILLNESS OTHER		TOTAL	%
	FRACTURES	BURNS	LACERTIONS	BRUISES				
1976	4	3	3	1	2	1	14	23.7
1977	1	-	-	-	1	1	3	5.0
1978	5	-	4	-	-	-	9	15.3
1979	5	-	-	-	1	3	9	15.3
1980	1	-	2	-	2	7	12	20.3
1981	4	-	2	-	-	1	7	11.9
1982	1	1	-	-	3	-	5	8.5
TOTAL	21	4	11	1	9	13	59	
%	35.5	6.7	18.6	16.9	15.3	22.0		100.0

Table 1 (b)

A breakdown of alcohol-related injuries and illnesses requiring evacuation to hospital 1976-1982. FEMALES N = 52

YEAR	INJURIES				ILLNESS OTHER		TOTAL	%
	FRACTURES	BURNS	LACERATIONS	BRUISES				
1976	7	2	1	1	-	1	12	23.1
1977	-	-	1	-	-	-	1	1.9
1978	2	-	1	1	-	1	5	9.6
1979	10	2	-	1	-	1	14	27.0
1980	5	1	3	-	-	1	10	19.2
1981	5	-	4	-	-	1	10	19.2
1982	-	-	-	-	-	-	-	-
TOTAL	29	5	10	3	0	5	52	
%	55.8	9.6	19.2	5.8		9.6		100.00

Table 2 presents a summary by sex of the above information.

Table 2

Alcohol-related evacuations by sex, 1976-1982. N = 111

	FRACTURES		BURNS		LACERATIONS		BRUISES		ILLNESS		OTHER	
	N	%	N	%	N	%	N	%	N	%	N	%
MALES	21	18.9	4	3.6	11	10.0	1	0.9	9	8.1	13	11.7
FEMALES	29	26.1	5	4.5	10	9.0	3	2.7	-	-	5	4.5
TOTALS	50	45.0	9	8.1	21	19.0	4	3.6	9	8.1	18	16.2

The information contained in Tables 1 and 2 was drawn up in simplified form a chart for use as an educational aid by the nursing sisters at Diamond Well. We present a reduced-size version of the chart in Appendix II.

Tables 1 (a) and (b) show that the years 1976 and 1979 produced high numbers of hospitalisations. In 1976 the road between Diamond Well and Dindara was bitumenised. 1979-80 were years of community unrest and staff sackings - factors which may have had their impact on the level of drinking.

From Table 2 we can see that eight more women consulted for fractures than did men, although there were seven fewer female patients than male patients. A fracture was the most common injury for men and women, being 45 percent of all the injuries to require evacuation to hospital. Clinic staff explained that all fractures were sent to hospital for the setting of bones. Details of alcohol-related illness evacuations are contained in Table 3.

Table 3

Diagnosis of alcohol-related illnesses requiring evacuation to hospital 1976-82.15

YEAR	DIAGNOSIS	MALE	FEMALE	AGE
1976	Neurological disorder	1		59
	Hemiplegia	1		32
1977	Dehydration and broncho-pneumonia+	1		45
1978	-			
1979	Pancreatitis	1		48
	Clot from mitral valve replacement*+		1	46
1980	Hepatoma+	1		42
	Duodenal Ulcer	1		?
1981	-			
1982	Pancreatitis	1		51
	Liver dysfunction	1		40
	Liver failure+	1		44
TOTAL		9	1	

\* Not an illness strictly speaking but designated by nurses as alcohol-related

+ Later died

In the Australian population as a whole it is women who tend to suffer more organ damage as a result of heavy alcohol intake.<sup>16</sup> Sargent points out that there is agreement that the cirrhosis mortality rate is higher for women (1979:122). It is interesting to note from our data that those suffering from alcohol-related illness were all men. We can exclude the one female who died from a clot from mitral valve replacement - this was designated by the sisters as alcohol-related because the woman failed to take her anticoagulant medication because she was frequently drunk. However, our sample is very small and so it is not possible to draw any firm conclusions from this.

Diamond Well people well understand that drinking a lot can make them ill, and they know that some people die of these illnesses. However, some people believe that after treatment they will be all right. One man,

knowing that one of us had previously investigated petrol-sniffing, announced that he was 'O.K.' because he was a drinker, not a petrol-sniffer. The doctor could not help petrol-sniffers (they had been told that lead from petrol was irretrievable once laid down in the tissues), but that if he got sick from the alcohol, the doctor could 'fix him up'.

Another man, who had been ill several times, resisted the entreaties of his family to stop drinking. 'It's my own body', he said, 'you can't stop me'. He collapsed after a heavy drinking bout and was hospitalised with a diagnosis of pancreatitis. His wife described visiting him:

I went to see him in the hospital. He was lying flat like paper...had a big lump on one side of his tummy, like a baby inside, hard. I felt 'em, felt 'em, make it soft, then he vomit. Green stuff come out like malu [kangaroo] stomach. He was all loose, skin all loose. Different man, got different skin, lost all that big talk.<sup>17</sup>

After this he stopped drinking because, he said, he had realised that he was killing himself. Many Diamond Well people told us that they were drinkers in the past but they had stopped because they became ill. Others have ignored the physiological warnings and have died as a result. One man gave us his own understanding of an alcohol-related death as follows:

Wine fills up the brains, tjuni [stomach] and leave no room for kurti [spirit]. That kurti tries to get out, squeeze 'im out. When that happens, you die.<sup>18</sup>

It was commonly thought that drinking too much meant that your 'brains were no good', and heavy drinkers were berated by others to this effect. There were occasions after a death had occurred when Diamond Well people attributed the cause of death to 'too much wine' even when this was not, in fact, the primary cause. In May 1982 an elderly woman died of a stroke but, because she was married to a drinking man and she also drank occasionally, it was believed that her death was caused by a heart attack from drinking. One man thought that perhaps her husband had 'killed her' by giving her too much wine.

\* \* \*

#### Six Month Survey of Clinic

We shall now present data compiled from the six-month questionnaires completed by the Clinic nursing staff for the period January-June 1982. The need for anonymity made it difficult to identify with absolute accuracy individuals who had multiple attendances at the Clinic. Consequently, the questionnaires identified consultations, not individuals. Patients' names were changed into identity numbers known only to the nursing sisters. This was a condition of our access to the files laid down by the Community Council and the health authorities. However, we were able to use the identity numbers to establish individual patients, assuming the nurses had been consistent in their use of the identity numbers.

Over the six-month period January-June 1982 there were, in all, 181 consultations made at the Clinic for alcohol-related causes. With careful

compilation of identity numbers we were able to ascertain that these 181 visits were made by 66 individuals. With a drinking population of approximately 100 it is clear that approximately two-thirds had to seek medical attention as a result of their own, or others', drinking.

Figure 1 below shows the number of occasions on which individuals sought attention at the Clinic in six months.

FIGURE 1

Number of visits to the clinic by number of individuals  
January-June 1982. N = 66. Total visits = 181

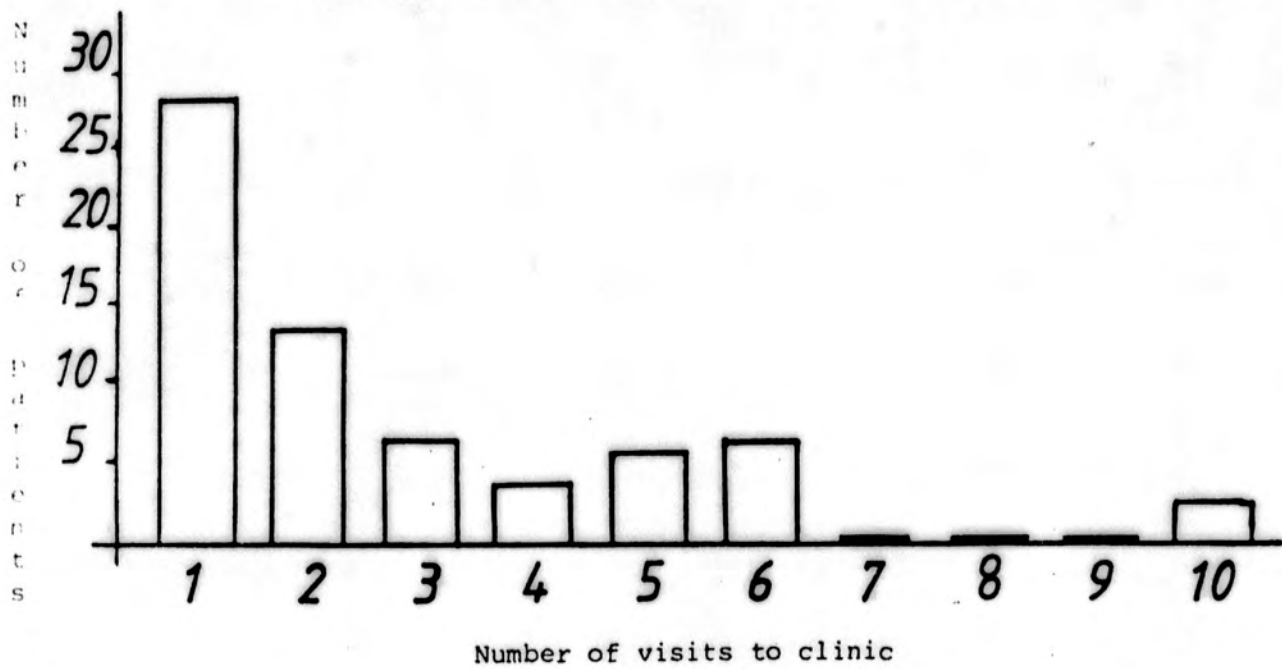




Table 5  
Consultations by sex, January-June 1982

SEX	N	%
MALE	112	62
FEMALE	69	38
TOTAL	181	100

Table 6  
Consultations by month, January-June 1982

MONTH	N	%
JANUARY	39	22
FEBRUARY	32	18
MARCH	22	12
APRIL	33	19
MAY	44	25
JUNE	8	4
N = 177	Missing = 4	

Table 7  
Consultations by days of week, January-June 1982

DAY	N	%
MONDAY	25	14
TUESDAY	22	12
WEDNESDAY	31	17
THURSDAY	37	21
FRIDAY	41	23
SATURDAY	12	7
SUNDAY	10	6
N = 178	Missing = 3	

The approximate population of Diamond Well over this period was 300: the 1981 Census gave the population aged 18 and over as 165 (83 males and 82 females). We can assume that the number of consultations given in Table 5 for alcohol-related injuries is indicative of the level of drinking at that time. It was our impression that there were, over all, more male than female drinkers. Fluctuations shown in Table 6 probably reflect levels of drinking influenced by social and organisational factors. Over December 1981 and January 1982, despite the emergence of the Christian movement, the community was - as far as its management was concerned - in a disorganised state. There had been several changes of staff and there was no Community Advisor appointed after the resignation of the previous Advisor in December. The community was, in effect, managed by DAA and by other staff taking on extra workloads. The initial impetus of the Christian movement had ebbed in May and it was not until June that a new surge of interest in the movement became apparent, after the visit of Christians from another community. May was the month in which an alcohol-related group rape occurred, as well as the month of the highest number of consultations (25 percent).

Table 7 identifies the Clinic's busy days. Cheques are exchanged for cash on Mondays, Wednesdays and Fridays and on these days the beer ration is given out. Wages are paid in full on Wednesdays and are followed by trips to Dindara. Wednesday nights and Thursdays are the nights of the most prolonged and overt drinking. This is reflected in visits to the Clinic in the latter part of the week. A sister commented that Friday was a busy day because people had 'come round' from Thursday by then and sought medical attention for injuries they may have received on Wednesday night. On Saturday and Sunday a sister is available but the Clinic is not open. At weekends people at Diamond Well tended to take the opportunity to go off hunting or to collect artefact wood. The weekend is not the binge time that it is for White Australians.

We asked the nursing sisters to identify the type of injury seen at each consultation (see questionnaire in Appendix I), and divided these into bruises, lacerations, fractures and burns. When compiling the data, we were able to link several injuries together, e.g., bruise + laceration, and will present this in detail later. Table 8 shows five main categories of types of injury for men and women.

Table 8  
Type of injury by sex

SEX	N/A	TYPE OF INJURY					BRUISE + LACERATION	ROW TOTAL
		BRUISE	LACERATION	FRACTURE	BURN			
MALES	7	11	55	0	34	3	110	
ROW %	6.4	10.0	50.0	0	30.9	2.7	61.5	
FEMALES	1	13	26	2	23	4	69	
ROW %	1.4	18.8	37.7	2.9	33.3	5.8	38.5	
TOTAL	8	24	81	2	57	7	179	
%	4.5	13.4	45.3	1.1	31.8	3.9	100	

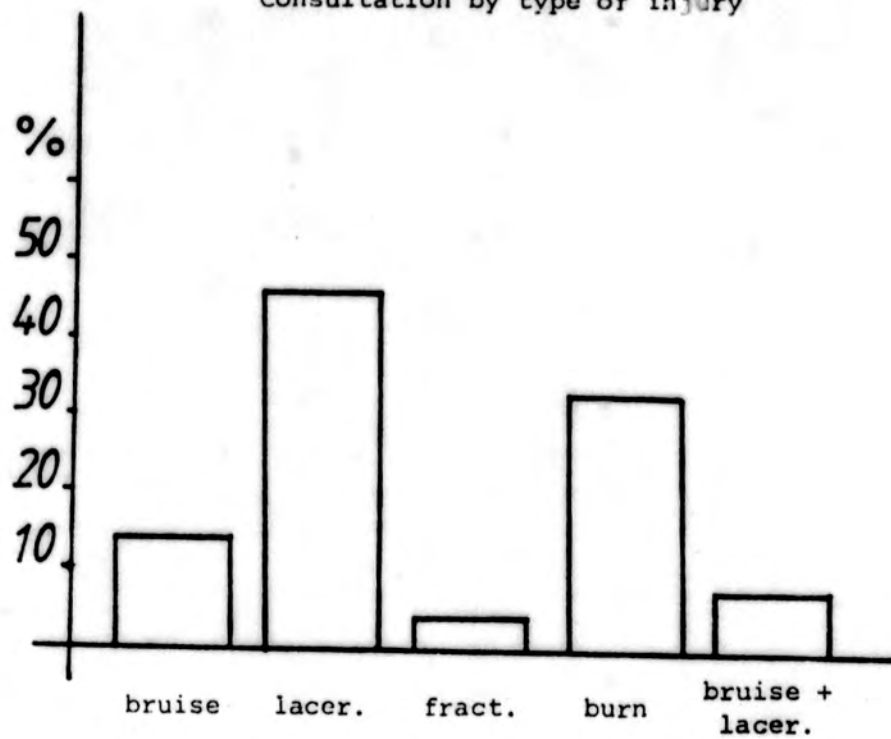
N = 179

Missing=2 (males)

This table shows that men suffered more lacerations than any other injury, followed by burns and bruises. Women's injuries followed a similar pattern: they consulted the clinic for fewer lacerations than men, but slightly more bruises and fractures. In Figure 2 below we present the types of injuries as percentages, without differentiating between the sexes.

FIGURE 2

Consultation by type of injury



In Figure 2 there is a high incidence of lacerations (45 percent of all injuries). This indicates the occurrence of fights or assaults utilising weapons, rather than fists. Either there are confrontations which involve hitting only with fists which do not cause injuries requiring medical attention, or Diamond Well people tend to pick up objects which are used as weapons when they fight. Rocks are plentiful, particularly around the settlement, and were frequently used as weapons. They were often picked up by those engaging in an argument as a form of threatening gesture but not necessarily for use. When used, however, they became missiles, rather than 'bashing tools' as Sansom calls them (1980:104), and were the major anti-property weapon. Sticks, bottles and small axes were frequently used as weapons in inter-Aboriginal fights, but knives were seldom used. Tools, such as wheel-braces and crowbars, were also wielded. All these were readily available around the camps. Such weapons are known to cause grievous bodily harm; some have caused fatal injuries. Diamond Well people do own .22 rifles but a rifle was never used by a drunken person as a weapon. Rifles were kept hidden. On the one occasion (that we know of) when an Aboriginal man shot another, neither were drunk.

In contrast to lacerations, burns, the next most frequent injury (32 percent, were, on the whole, self inflicted. When people were drunk they often rolled into a fire, or inadvertently stepped on hot ashes. At night, particularly in the winter months, people slept close to fires for warmth. Most burns were to the back (as we shall see later). When a drunken person lies down to sleep he may roll into the fire because of his unaware state. Because a drunk is to an extent anaesthetised, he may not be aware that he is suffering burns to his body. There have also been deliberate burnings, since a fight may involve the use of firesticks.

In the following Table we have related the types of injuries to each month from January to June 1982.

Table 9  
Type of injury by month

INJURY	JAN.	FEB.	MAR.	APR.	MAY	JUNE	TOTAL
N/A	2	6	0	0	0	0	8
Bruises	5	5	6	4	4	0	24
Lacerations	25	12	12	16	13	2	80
Fractures	0	0	0	0	0	2	2
Burns	7	8	1	12	24	5	57
Bruises &							
Lacerations	0	1	2	1	3	0	7
TOTAL	39	32	21	33	44	9	178
%	22.0	18.1	11.9	18.6	24.9	4.5	100.0

Table 9 shows that 44 consultations were made in May (24.9 percent of all consultations) followed by 39 (22 percent) in January. Those two months showed high levels of consultation for the two injuries most likely to be associated with drinking: lacerations and burns. Burn injuries are a good indication of the level of drinking as they represent mostly unintentional injury (as explained) and lack of alertness. The drop in the number of burns from 24 in May to five in June is significant. January and May were months in which there was a noticeable lull in the religious anti-drinking trend, a lull that is reflected in the alcohol-related injuries.

Our questionnaire asked the sisters to circle whether the patient was attending the Clinic for the first, second, third or more time for that injury, and the results are presented below.

Table 10  
Visit No. by injury, January-June 1982

VISIT NO.	N/A	BRUISE	LACERATION	FRACTURE	BURN	BRUISE & LACERATION	TOTAL
1							
VISIT	7	12	34	1	9	2	65
%	87.5	50.0	42.5	50.0	15.8	28.6	
2							
VISIT	1	7	16	0	10	2	36
%	12.5	29.2	20.0	0	17.5	28.6	
3+							
VISITS	0	5	30	1	38	3	77
%	0	20.8	37.5	50.0	66.7	42.9	
TOTALS	8	24	80	2	57	7	178

N = 178

Missing = 3

Table 10 shows that the injuries most often requiring three or more visits for medical attention at the Clinic were burns. There were:

- 9 cases of burns requiring 1 visit
- 10 cases of burns requiring 2 visits
- and 38 cases of burns requiring 3+ visits.

Although, overall, lacerations were more common (45 percent of all injuries compared to burns constituting 32 percent) they were stitched or bandaged and the patient stood a reasonable chance of them healing up, with some follow-up visits. Burns, on the other hand, were more time-consuming in terms of the Clinic workload, and as an injury a burn was more problematic. People had great difficulty in keeping burns clean and free of sand, and in keeping bandages over them, particularly on legs. It must be remembered that the people lived in traditional shelters with earth floors, sat on the ground and did much travelling in the back of trucks. All these factors influence the degree of discomfort and difficulty with injuries, and particularly with burns. Several Diamond Well people have had major skin graft surgery for severe burns.

In order to ascertain roughly how severe injuries were, we asked the sisters to make an assessment along a six-point scale. Points one and two were minor, points three and four were medium, five were severe, six were fatal.

Table 11

## Severity of injury by type of injury

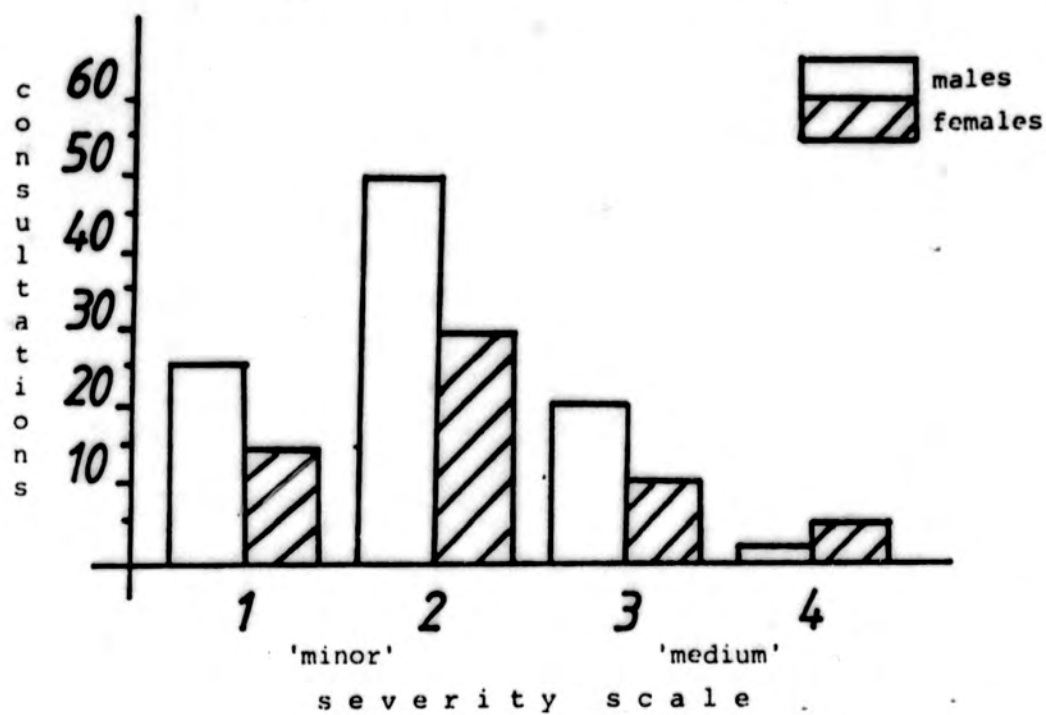
SEVERITY	N/A	BRUISE	LACERATION	FRACTURE	BURN	BRUISE & LACERATION	TOTAL
N/A	8	-	-	-	-	-	8
M 1 I N O P	-	11	18	0	5	3	37
P 2	-	2	35	1	38	0	76
M 3 E D I U	-	4	15	0	7	3	29
M 4	-	0	1	1	3	0	5
TOTAL	8	17	69	2	53	6	155
	N = 155		Missing = 26				

In the six-month period there were no injuries designated as level 5, i.e., 'major extensive and/or severe injuries' and no deaths from alcohol-related injury. The injuries seen therefore fell between levels 1 and 4 in terms of severity. Lacerations (45 percent of all injuries) were most usually rated as being severity '2' by the sisters'. Burns were also most often severity '2'. However burns more than any other injury in this six-month period were given a severity of '3'.

A breakdown of the severity of injuries by sex of the victim is presented in Figure 3 below.

FIGURE 3

Severity of injury by sex of victim



From Figure 3 it can be seen that injuries sustained by men and women followed a similar pattern of severity, with the exception of the most serious point on the scale '4' (in this six months). Significantly, more women than men rated on this level of severity. The relationship of severity with visit number (1st, 2nd or 3+) is shown in Table 12.

Table 12  
Severity of injury by visit no.

SEVERITY	FIRST VISIT	SECOND VISIT	THIRD VISIT	
N/A	7	1	0	
Minor	1	15	8	14
	2	23	12	41
Medium	3	8	7	13
	4	1	0	4
TOTALS	54	28	72	

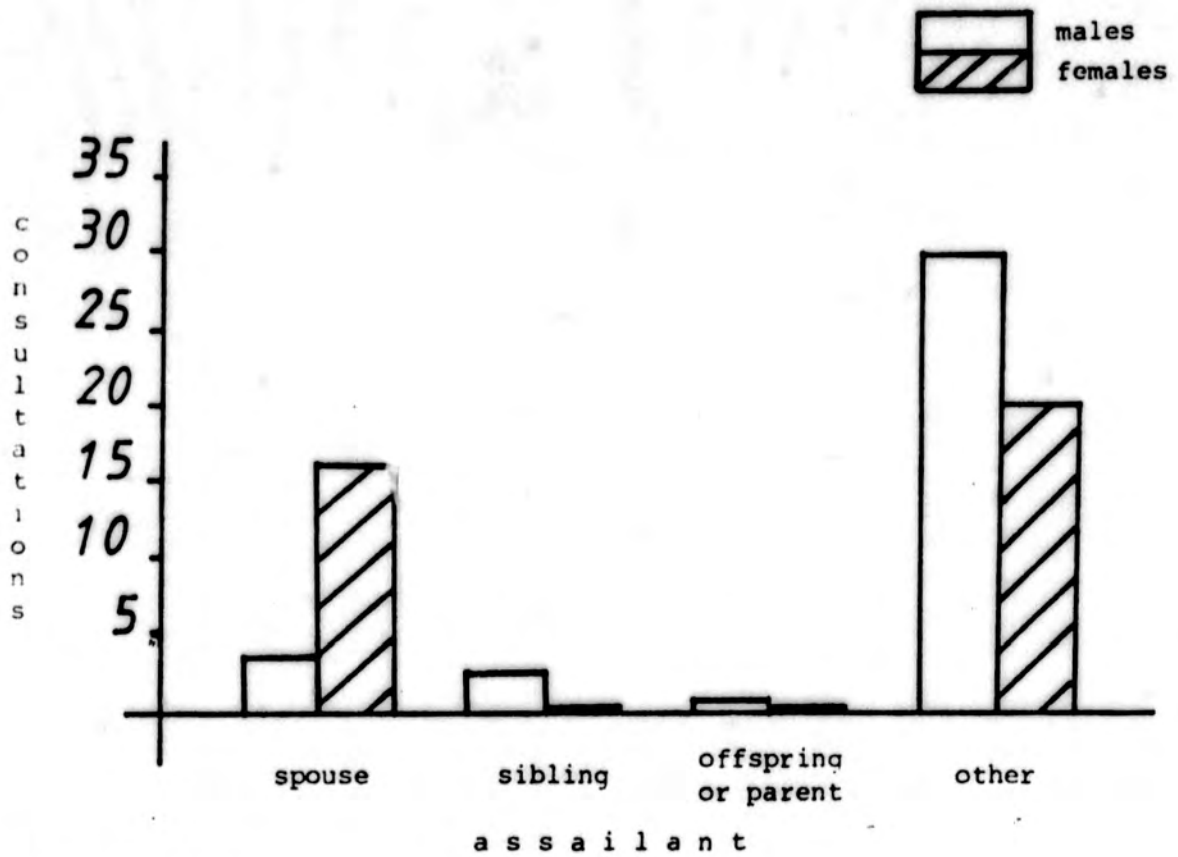
N = 154  
Missing = 27

Perhaps the most significant figure to show up in Table 12 is the high number of minor injuries '2' which required three or more visits (35.7 percent of all consultations). This suggests that the Clinic staff devote much time to 'repair' work on already treated injuries, and reinforces our comments vis-a-vis the problems associated with rapid healing. Clinic staff commented that it was very difficult prescribing a course of antibiotics for a habitual drinker; such a person tended to forget to take the medication or lost the tablets. Diamond Well Aborigines do experience problems in storing tablets or medicines and it is very easy for them to get lost or damaged at camp. Women sometimes keep tablets in the lining of a dress, or wrapped up and kept in their bosom. Some have handbags for this purpose. The sisters try to overcome this problem by dispensing small amounts of medicine or tablets, and people must simply go back for more when they need it.

Figure 4, following, presents what information we were able to gather on the relationship between assailant and victim: of 181 consultations we had information on only 74 cases. Naturally this was not easy information to obtain and unless the patient volunteered it the sisters did not pursue it. Our categories refer only to immediate family members - spouse, sibling, parent or offspring. 'Other' may therefore be a near or distant relative or someone not related at all.

FIGURE 4

## Assailant by sex of victim



N = 74 (8 were N/A)  
 Missing = 10

Even with the limited responses, Figure 4 shows that in 49 known cases (66 percent) the assailant was designated as 'other'. In 11 consultations by women the assailant was their husband, whereas only three men were injured by their wives. Table 13 shows the type of injury inflicted by various categories of assailant.

Table 13  
Assailant by type of injury

RELATIONSHIP	INJURY					TOTAL
	N/A	BRUISE	LACERATION	FRACTURE	BURN	
	8					8
Spouse	0	3	7	1	3	14
Sibling	0	0	2	0	0	2
Offspring/ Parent	0	0	1	0	0	1
Other	0	6	25	17	1	49
TOTAL	8	9	35	18	4	74

N = 74

Missing = 107

Table 13 which designates an assailant, confirms that indeed some burns (4) were deliberately inflicted, three of them by the spouse of the victim. The high number of missing information makes it very difficult to make any definitive comments.

The nursing sisters were asked to designate which part of the body was injured in each case, and this has provided us with some detailed information. In the first instance we have a breakdown of the percentage of single and multiple injuries in Table 14 below.

Table 14  
Consultations for single or multiple injuries

INJURY	No.	%
N/A	8	5
One body part	144	85
Multiple	29	10

N = 171  
Missing = 10

Table 14 shows that 85 percent of injuries were to only one body part. However 10 percent of injuries were to two or more parts of the body.

Tables 15 and 16, following, present detailed information on the body part injured according to the sex of the victim and according to the type of injury. We shall discuss the two Tables together.

Table 15  
Part of Body by type of injury

PART OF BODY	INJURY					
	N/A	BRUISE	LAC.	FRAC.	BURN	LAC. & BRUISE
N/A	8	-	-	-	-	-
Head	-	1	23	-	-	-
Scalp	-	-	2	-	-	-
Nose	-	-	2	-	-	-
Mouth	-	-	-	-	1	-
Forehead	-	1	1	-	-	-
Neck	-	-	3	-	5	-
Shoulder	-	-	-	-	3	-
Arm	-	1	4	-	2	-
Hand	-	-	3	-	-	-
Fingers	-	-	3	-	-	-
Elbow	-	2	-	1	-	-
Wrist	-	1	-	-	1	-
Thumb	-	-	-	-	-	1
Chest	-	-	4	-	3	-
Breast	-	2	-	-	-	-
Abdomen	-	-	-	-	7	-
Ribs	-	4	-	-	-	-
Back	-	4	1	-	12	-
Hip	-	1	-	-	-	-
Thigh	-	-	22	-	-	-
Legs	-	-	3	1	4	-
Feet	-	-	1	-	6	-
Head + hands	-	-	3	-	-	-
Head + lip	-	-	1	-	-	-
Elbow + abdomen	-	-	-	-	-	2
Head + back + eye + abdomen + lip	-	-	-	-	-	1
mouth + lip	-	1	-	-	1	-
cheek + forehead	-	-	-	-	2	-
face + leg	-	-	-	-	-	2
scalp + arm	-	-	1	-	-	-
abdomen + neck	-	2	-	-	-	-
abdomen + hand	-	-	-	-	1	-
back + elbow	-	-	1	-	-	-
back + arm	-	-	-	-	5	-
back + buttock	-	-	-	-	3	-
thigh + nose	-	-	1	-	-	-
vulva + legs	-	-	-	-	1	-
penis	-	-	1	-	-	-
TOTALS	8	20	80	2	57	6

N = 173

Missing = 8

Table 16  
Sex distribution of injuries to body parts

PARTS OF BODY	% MALES	% FEMALES
N/A	6.5	1.5
Head	7.4	24.6
Scalp	1.9	0.0
Nose	1.9	0.0
Mouth	0.9	0.0
Forehead	1.9	0.0
Neck	1.9	9.2
Shoulder	2.8	0.0
Arm	5.6	1.5
Hand	1.9	1.5
Fingers	2.8	0.0
Elbow	1.9	1.5
Wrist	1.9	0.0
Thumb	0.9	0.0
Chest	4.6	3.1
Breast	0.0	3.1
Abdomen	4.6	3.1
Ribs	2.8	1.5
Back	13.9	3.1
Hip	0.9	0.0
Thigh	20.4	0.0
Legs	0.0	12.3
Feet	0.9	9.2
Head + hands	0.0	4.6
Head + lip	0.0	1.5
Elbow + abdomen	1.9	0.0
Head + eye + back + abdomen + lip	0.0	1.5
Mouth + lip	0.9	1.5
Cheek + forehead	1.9	0.0
Face + leg	0.0	3.1
Scalp + arm	0.9	0.0
Abdomen + neck	0.0	3.1
Abdomen + hand	0.9	0.0
Back + elbow	0.9	0.0
Back + arm	0.0	7.7
Back + buttock	2.8	0.0
Thigh + nose	0.9	0.0
Vulva + legs	0.0	1.5
Penis	0.9	0.0
% TOTAL	100.3	99.7*

\* Since decimal points were rounded to only 1 decimal place  
% totals are not 100%

From Table 15 it is possible to gain an indication of the areas of the body which are most vulnerable in alcohol-related assaults. Lacerations were sustained predominantly in two areas of the body: the head and the thigh. All other laceration-type injuries were sustained in insignificant numbers to other parts of the body. Burns occurred most often to the back (a point which we have already discussed), although there were a number of burns to abdomen and feet also. Bruises occurred most often to the ribs, and to the back. There were two cases of bruises to the breast. The two fractures in this period were to the elbow and leg.

Table 16 shows that there were some clear distinctions between the areas of the body injured in men and in women. Perhaps the most significant of these is the high proportion of women who sustained head injuries. Head injuries constituted 24.6 percent of all female injuries compared with 7.4 percent of male injuries. Since most head injuries are lacerations, we can deduce that women who are injured in the head are lacerated in the head and thus it is they who sustained injuries of a critical type to a vulnerable part of the body. Women received proportionately more leg injuries than men, followed by neck, feet and multiple back and arm injuries. The injuries to the neck, feet and multiple back and arm were most often burn injuries. From this we can conclude that women burned themselves or were burned in these areas more than men.

Men suffered more back injuries than women and back injuries were usually burns (12 burns, 4 bruises and 1 laceration). Consultations by men were, however, predominantly for injuries to the thigh, being 20.4 percent of all male injuries. No woman sustained thigh injuries.<sup>19</sup> Aiming for the thigh has a particularly male connotation in Aboriginal society, for it is the part of the body which sustains ritual spearing as punishment (see for example R.M. & C.H. Berndt, 1964:290). Presumably the aim of a laceration to the thigh under controlled circumstances was to make the victim 'sit down quietly' (Meggitt, 1975:100), inhibit movement and to interfere with the man's ability to travel long distances, and to hunt; this would indeed, punish him. If this were the case, the punishment for women should have curtailed their particular skills in the bush - foraging and digging, grinding seeds.

In the January-June sample there is no evidence that women sustained broken arms or fingers, injuries that would inflict such a disability. However, the data collected separately from the Clinic, covering the 1976-82 evacuations to hospital detailed the names of bones to be set. Over that period there were 17 fractures to the radius or ulna of women, and only three to those bones for men. This high number of forearm fractures for women may be simply because a woman might raise her arm in self-defence, to protect her face, and thus come into contact with the full force of a weapon. It is also possible that breaking a woman's arm was a punishment and that this form of 'punishment' is still in effect (see Berndt, R.M. & C.H., 1964:175). Bell and Ditton report a case at Hooker Creek where a husband injured his wife's arm with a boomerang for not preparing his dinner. What is more, he claimed that his attack was justified under the 'old' (i.e., Aboriginal) law. The Community Council disallowed this claim, saying that the fact that he was drunk meant that the 'old' law did not apply (1980:24). A 52-year-old Diamond Well woman, who was finally killed by her male partner in 1980, had had her arms broken

on several occasions to the extent that she had had steel pins inserted. In his defence, this man argued that he had found her drinking at night with some young men and that his attack was in a sense a punishment for this perceived wrong. However at his trial the Judge stated that the defendant had hit his wife 'no less than 25 times around the head and body' with a stick. She subsequently died.

In summary, alcohol-related disputes resulted in men being injured in the thigh, back and head, in that order. The preponderance of thigh injuries is remarkable as it indicates that strong cultural influences are penetrating the drunken state. Women were injured in the head, legs, neck and feet, in that order.

#### Alcohol-Related Deaths

Records of alcohol-related deaths were available for the period 1972-1982. They fell into the categories of neglect, violence, burns, motor vehicle accident, illness and overdose. Although in some cases, particularly illness, it was impossible for the nursing staff to give alcohol as the sole 'cause' of death, we have based our data on their considered opinion and close personal knowledge of the individual and the circumstances surrounding the death. In some cases an individual would receive the warning that if he/she continued to drink while on a particular medication, or after a specific diagnosis, then this would cause death. A subsequent death would then be noted as 'alcohol-related' in the Clinic records. Deaths from alcohol-related causes are presented in Table 17.

Table 17  
Causes of Alcohol-related death for the ten years 1972-82#

	CAUSES OF DEATH						
	NEGLECT (of child)	VIOLENCE	BURNS	MOTOR VEHICLE ACCIDENT	ILLNESS	O'DOSE	UNKNOWN
MALES	-	4	1	5	6	1	3
FEMALES	2	5	-	-	2	-	-
TOTAL	2	9	1	5	8	1	3

Total alcohol-related deaths = 29

Total deaths from all causes = 99

# Data only collected to June 1982.

The most significant point that can be drawn from Table 17 is that alcohol-related deaths constituted 30 percent of all deaths at Diamond Well over the ten year period. Table 17 also shows that most alcohol-related deaths were associated with violence, followed by illness and then motor vehicle accidents. Motor vehicle accidents have also caused some severe injuries among Diamond Well people were returning from a trip to obtain alcohol. Their car had broken down and they were pushing it at night, unlit along the highway. A semi-trailer crashed into them from behind and one man was killed. The Diamond Well Clinic has its own ambulance, which covers emergency calls for any accident on the highway in the vicinity of the settlement. The nursing staff commented that a substantial number of accidents they had attended, involving European Australians, were associated with alcohol.

Table 17 shows one death designated as an overdose. This was a death from drinking duplicating fluid, which was possibly mistaken for methylated spirits. A man from another community also died in this incident. Of the deaths by violence, five were women. Two of these deaths have involved publicised manslaughter trials. Similarly, a trial for manslaughter in Queensland provoked considerable publicity, particularly with reference to alcohol (Wilson, 1982). The fact that violence was the major cause of alcohol-related death among women is undoubtedly related to the high number of head injuries they sustained, more precisely lacerations to the head. Such injuries are associated with heavy loss of blood and subsequent death. As stated in Chapter 2, women and children often vacate the camps when heavy drinking is predicted or is in progress; if women stay in the vicinity, or are themselves members of drinking groups, they place themselves in danger of serious injury. The fact that severe injuries often lead to death is due to specific situational factors. The death of the woman referred to on above is an example. As stated, she received at least 25 blows to the head and body, and was herself 'very drunk'. After the assault, she was left overnight with no medical attention, and it was

only later the next morning that other residents of the camp realised that she was seriously hurt. By this time she had lost a lot of blood. A message was sent to the Clinic, that is, a vehicle had to be found and driven into the settlement. The nursing sister then drove out to the camp and gave medical attention. The woman arrived at the town hospital by ambulance at approximately lunch-time but was dead on arrival.

In conclusion, 29 Diamond Well people have died in a ten-year period from alcohol-related causes, constituting approximately 10 percent of the population. A simplified chart showing numbers of alcohol-related deaths from all causes was drawn up at the request of the Clinic (see Appendix III). This was done utilising the data we collected for this study. This chart, together with one depicting evacuations to hospital, was placed on display in the Clinic.

#### Alcohol and Clinic Time

Data on total consultations (that is, alcohol-related consultations and all others) at the Diamond Well Clinic were collected for the month of October 1981. In this month there were 672 consultations altogether. Of these, 99 were for alcohol-related causes, and of these, 52 were first visits (i.e., there were 52 separate incidents requiring medical treatment). Thus 15 percent of all treatments at the Clinic that month were alcohol-related.

#### Summary

Diamond Well Aborigines are under no illusions about the cost of drinking. From 1976 to 1982 they saw their friends and relatives taken to hospital for alcohol-related causes on 111 occasions and in the ten years 1972-82 they had seen 29 people die from alcohol-related causes. Alcohol was directly related to 30 percent of all deaths occurring in the Diamond Well population over the ten years 1972-1982.

From January to June 1982, which was a period of low to moderate drinking as a result of the Christian influence, 66 people sought medical attention at the Clinic - two-thirds of the drinking population. There were 181 attendances at the Clinic overall in the six months. Diamond Well people were suffering from pancreatitis, pneumonia, cirrhosis, gastritis and fits as a result of drinking alcohol.

In alcohol-related violence, they suffered lacerations more often than any other injury, followed by burns. Burn injuries required more return visits to the Clinic than any other injury and in the six months were designated as being more serious than any other injury. Some people were deliberately burned by others. Men and women experienced injury to dissimilar parts of the body. Women sustained more head injuries than men (24.6 percent of all female injuries). Men sustained thigh injuries (20.4 percent of all male injuries), while women had none. This suggests that, to some extent, cultural rules were in operation, even when people were thoroughly drunk. The element of deliberation which is implied in these results reinforces evidence presented elsewhere (MacAndrew and Edgerton, 1969), that when people are drunk they are not entirely out of control. Women died as a result of violence more than any other alcohol-related cause. It was clear that women risked serious injury and death if they

remained in drinking camps at night. Men died as a result of illness and vehicle accidents more than from any other alcohol-related cause. At times of heavy drinking children were sometimes not supervised very closely and this has caused injury and death.

## CHAPTER FOUR

### TOWARDS A SOCIOLOGICAL ANALYSIS OF DRINKING

To understand drinking is to put it in social context, and to study the meaning of the actions and their value for those who engage in the enterprise of drinking. Actions have meaning when they have a significance for a group of people who place a value upon them. Actions contextualised within the fabric of social living can also be characterised by the framework or structure within which an organised system of interaction is contained. The structure is described as a heuristic device representing a model of the way a thing can be understood to work.

This is a chapter of analysis. In it we seek to analyse the structural components within which the drinking act takes place and to derive meanings from the social interactions which are predicated upon that framework. Within a synthesis of meaning and structure lies an understanding of the drinking act. We work to demonstrate that drinking is ordered along particular and observable lines in order that desired ends may be considered achieved, but that the endeavour is frustrated because of constraints which are intrinsic to the structural relationship of component parts.

#### Aboriginal Powerlessness

In this analysis we make two initial assumptions. The first is that Aborigines are economically and socially lacking in power in their interactions with European Australians and that Aborigines are aware of this powerlessness. Secondly, we consider that Aborigines wish to rectify this situation of powerlessness.

The first assumption is not hard to accept. While some studies of Aboriginal communities have stressed their autonomy and vitality (e.g. Sansom, 1980) it is difficult to neglect the fact that Aboriginal communities are also subject to strong pressures to respond positively to European Australian influences. Even in current Department of Aboriginal Affairs (DAA) policies in which self-management and self-determination are stressed, the reality is that Aborigines are island dependencies within a colonial administration. There is an ideological formation which lies at the base of this arrangement which has its roots far back in the colonial ethic. Aboriginal land, which was the economic base of a whole civilisation, was appropriated and its former owners incorporated into a new system of government and political organisation, legitimised by the maintenance of law and order through the exercise of coercive powers. The Aborigines were deprived of their economic base and offered material inducements to comply with the new dispensation. The settlers came to monopolise what the Aborigines needed to continue their existence and were largely indifferent to what Aborigines had to offer in return. The introduction of materialistic values, physical coercion, monopoly over resources and a disinterest in Aboriginal commodities or ideals constituted power for European Australians and powerlessness for the Aborigines.

Power, broadly defined, 'refers to all kinds of influence between persons or groups, including those exercised in exchange transactions, where one induces others to accede to his wishes by rewarding him for doing so' (Blau, 1964:115). When a group becomes dependent upon another because they cannot either do without the rewards, or require them and cannot obtain them elsewhere, then power is exercised which is not strictly negative in its application - that is, it does not involve coercive sanctions or the withholding of rewards. Blau wrote:

By supplying services in demand to others, a person establishes power over them. If he regularly renders needed services they cannot readily obtain elsewhere, others become dependent on and obligated to him for these services, and unless they can furnish other benefits to him that produce interdependence by making him equally dependent on them, their unilateral dependence obligates them to comply with his requests lest he cease to continue to meet their needs (ibid:118).

As a consequence of colonisation the Aborigines at Diamond Well have no economic resource of their own, have no viable alternative to those provided by European Australians, lack coercive force altogether and have not developed any ideology that might lessen their needs. That is to say, they have not developed any idealism which would stress that it might be better to do without what the White man offers in order to sever the dependence upon him. While Aborigines are landless they have no hope of obtaining viable economic alternatives elsewhere, and though land rights are a reality in the north of South Australia and in the Northern Territory, the situation even in these areas is far from restoring economic independence for Aborigines.<sup>21</sup> In short, the Aborigines at Diamond Well have none of the conditions for independence outlined by Blau (ibid:124).

The development of the present state of affairs is not the spontaneous result of uncontrolled forces. It has eventuated because of the developed relationship between those who have power and those who have not. Powerlessness is a product of power, and those who are subordinated are in a structural relationship to those who are superordinate. The business of Diamond Well is composed of inter-relationships fundamentally formed from transactions between those who have power and those who do not. Government policies and contemporary directives for self-management and self-determination are cosmetic. They are doomed to failure because what they seek to obtain can only be achieved by a structural re-negotiation of the power base; a matter not allowed for in government programmes.

The Aborigines at Diamond Well are dependent upon European Australians for their cash and more or less dependent upon the cash economy for subsistence. At Diamond Well there are on average only between 35 and 45 wage-earners a week, and some of these work for less than five hours a week. The community has been developed to provide jobs for these workers but the community is in no way dependent upon them. If no one turns up for work the Whites may have to empty their own rubbish bins, but the community does not grind to a halt. Aborigines cannot then withhold their labour in order to gain power over the European Australians. The Whites live at Diamond Well only because they provide valuable services which the Aborigines cannot at present manage to provide for themselves: complex

mechanical repairs, maintenance of generators, ordering of stores and the running of the shop, sending telexes and writing memorandums to DAA. If the Whites withdrew their labour, the community as it is today would stop, no one would get paid, there would be no pensions, the store would not open and people would begin to go hungry. The European Australians, then, clearly have the power. Even the Aboriginal industry of artefact-making by which some men and women earn up to \$250 a month is administered by the White staff. Independent sale to tourists on the main road and not through the community artefact store would be unreliable, and it would be impossible to secure a living wage.<sup>22</sup>

Most of the cash flowing into the community comes from pensions, supporting mothers' allowances, invalid pensions and family allowances.<sup>23</sup> Cheques are processed in the community office where they are also cashed. In principle an Aborigine can receive his cheque anywhere provided he has a postal address and so need not be dependent upon the community or its White staff. However, the dependence remains since the relationship between pensioner or beneficiary and the government and its European Australian agents is asymmetrical. Power is vested in the Europeans who decide who shall qualify for benefit and who will not, who will be sent a cheque and who will be cut off. They also control where the cheques will be sent. Aborigines are always obligated to European Australians for the cash they provide, even if the debt is not consciously registered.

The socio-political organisation of the community is run along European Australian lines. A White Community Advisor co-ordinates Aboriginal activities and a Council is elected by the Black residents to discuss issues of importance. The Council members exercise some influence over the Community Advisor in matters of minor importance. However, budget allocation, expenditure and utilisation of capital equipment are controlled from outside the community by DAA officials. The Council and Diamond Well residents are not able to make any major decisions concerning finance, purchase of capital equipment or the control and expenditure of money. They may express their opinions and these are taken into account by DAA, but fundamental policy and organisation is directed from outside the community and usually from Canberra. Even items of equipment, like a community truck, are provided by DAA funds for a designated purpose and strictly may only be used in connection with that purpose although it nominally 'belongs to' the community.

The Council and community members have no real power over the management of their affairs, although they have been told repeatedly that it is their community and that they should make all important decisions. In fact they make no important decisions, have no power over the control or direction of affairs or finance and are consequently alienated from the whole procedure, which they perceive as being part of the superstructure of the European Australian administration. The alienation, frustration and anger that Aborigines feel in their position of powerlessness has been similarly noted for North American Inuit by Brody (1975).

There is an underlying ideology on the part of European Australians that Aborigines should be trained to manage their affairs in a thoroughly European way which will be consistent with government policy. The philosophy of 'training for self-management' is built upon the assumption that Aborigines will wish to run their affairs more or less as a carbon

copy of the way Whites have done. There seems little evidence to support the veracity of this assumption. Moreover, the philosophy is also based on the premise that the Aboriginal system will remain a part of the European Australian one, and be contained within its power structure. Despite the involvement of Aborigines in self-management programmes very little real change in the power structure is either taking place or proposed. For some reason government planners seem to have been easily seduced into thinking that if power is transferred into Black hands outside the community then in an unexplained the situation of powerlessness will be remedied. Of course, it is no answer. The powerless remain powerless and the only thing which has changed is the colour of the hands which hold power.

#### Access to Power: Ritual Time Out

We have spent some time discussing the notion of powerlessness at Diamond Well and how it is manifest. This is because drinking and drunkenness take place within this context, and it is our purpose here to contextualise the drinking act. Herein lies the key to understanding the interactions and consequences we have described in this report. Aborigines are dissatisfied with their subordinate status, but are powerless to remedy the situation. They lack viable alternatives to economic and social dependency, they are not equipped to do without the services upon which they have been encouraged to become dependent. However, they have perceived one way out. That is, to suffer transformation during the time-bounded euphoria of the intoxicated state. During this state of transformation it is possible to demonstrate the existence of alternatives to compliance with power, and sometimes possible briefly to realise them. This transformation is not obtainable through mundane interaction because it requires a fundamental alteration to the state of affairs. It is considered attainable through a period which is best described as 'time out', or as in ritual process, a liminal phase in which the otherwise impossible, the unobtainable and the unthinkable, becomes possible and within the grasp of ordinary men and women.

A. van Gennep (1960), writing in 1909, described the ritual process as one in which the initiate is separated from society, endures a period of transition and is finally incorporated into society. Psychologically the initiate at first remains unaware of the stimuli which are the substance of the experience of the ritual. Then he enters a liminal phase when the stimuli are perceptible. Finally, in the post-liminal phase, he assimilates the stimuli and accepts knowledge of them. Van Gennep called this ritual process a rite de passage.

The drinking act conforms with a rite de passage. It is a ritual act of transformation in which participants enter an altered state and are regarded by others as belonging to a different order of existence. The initial organisation of drinking belongs to the preliminal phase. Drinkers have already marked themselves off as setting out upon a course of actions which will result in their transformation. Their intentions are declared, but the results of drinking (intoxication) are as yet pre-liminal.

The drunken state is absolute. A mark of a drunk is that he is physically incapable, often unable to stand and his speech is slurred. Drinkers adopt this state as a mark of their transformation, regardless of the absolute amount of liquor consumed. However, copious consumption is

regarded as a necessary inducement to enable the altered state to become a reality. The drunk is not himself, and assumes an altered persona. He often speaks in English, not in his own language, and is permitted all sorts of licence otherwise unthinkable. A drunk who injures himself or others does so because he is drunk. He cannot be held responsible for his own actions in his liminal state. Drunks are separated from the rest of society, both by physical distance and by the mental states which are markedly different from their non-drinking peers. Drunks are not ordinary people, their experiences are not those of ordinary people, and their abilities are likewise extraordinary.

When drinking is over and sobering up commences, the other-world mind state of the drunk recedes and there is a reversion to ordinary experience and understanding. The drinker is incorporated into society and assumes his old role there, until the next ritual drinking spree.

Drinkers have told us that when they are drunk they feel different from when they are sober. They feel themselves to have a greater facility with English and so are able to demonstrate that they belong to a world and discourse which is that in which decisions are made about the control and allocation of goods and services. Moreover, they feel that they can approach a European Australian as an equal in verbal interactions, not hindered by a lack of knowledge of the spoken word.

Drinkers have also told us that the drinking experience is one in which they become bold and audacious in their interactions with Whites and are prepared to state the nature of past injustices and demand restitution. When matters of current concern are considered to be the product of unjust dealings, then the drinker may demand that a European Australian right wrongs. Drinkers in their transformed state of forcefulness and linguistic facility establish their non-compliance with European directives. If necessary a drinker will back his requests or resistance with threats of violence or make an actual assault.

Coupled with assaults on persons are attacks on European Australian property. Windows are the prime target since they break easily and dramatically, though rocks and other missiles are hurled by drunks at walls, doors and roofs as well. The intoxicated state is the means whereby an Aborigine fashions an alternative to compliance. It enables him to take by force that which was formerly withheld or was unobtainable.

While coercion or threats of coercion are short-term alternatives to compliance, their enduring effectiveness is another matter. In fact, although a drunk may cause damage or injury thereby showing himself to be for the nonce physically superior, the structural framework within which his enduring powerlessness is contained remains unaltered. A possible outcome for the violent drinker is police arrest, conviction and incarceration. Moreover, his linguistic audacity may be little more than a series of slurred sounds, incomprehensible to the unsympathetic accosted White, who may be unable in any case to meet the demands of the drunk.

As our data have shown, injury and assaults on Whites and their property are by no means the only product of a drinking bout. Aborigines themselves suffer terrible injuries which are sometimes fatal. Those who feel themselves to be powerless when sober attempt to redress the balance

when drunk by making demonstration of their ability to enforce their will by strength of arm, establish their right by might and dominate by physical action. By such action they declare to all observers that there is an alternative to powerlessness. Actions which are statements of non-compliance serve to establish the position of an individual in relation to his consociates, but they are effected at great personal cost. Moreover, they are understood to be achieved and therefore effective only during the heightened liminal state of drunkenness and so do not determine relations contracted outside of that ritual period. However, what a drinker establishes when drunk regarding his coercive powers is real, and an aggressive drinker is treated with caution by others for his predicted violence. Such a drinker, provided he can survive the consequences of his aggression, establishes himself as being both beyond the immediate control of the European Australian power of law and order and, by taking what he desires by force, to have demonstrated an alternative to a compliant state.

Drinking acts are often violent acts but not inevitably so. Drinkers establish their non-compliance with the European Australian power structure by other, non-violent means. There are two devices employed to effect this. The first is by the establishing and sustaining of an Aboriginal business which is, in its own right, an enterprise in which exchange transactions are used to develop a wholly Aboriginal network of relations of indebtedness and obligation. In their organisation of the drinking business, the Two-up school and the fetching of port wine from Dindara, Aborigines are embarking upon an enterprise which involves no dependence upon Whites. This means they are able to forge obligations, discharge debts and create alliances through the pursuit of a valued commodity which they control, allocate and consume. Drinking and carting are statements of liberation from European Australian monopoly over goods and services. The fact that it is an illicit activity, which nevertheless thrives, is further endorsement of their non-compliance with White control.

The independence is to some extent contrived, since the source of all alcohol is a hotel where cash must be exchanged for liquor. Since cash must be received at the settlement from European Australians who effectively control its allocation, drinking cannot commence without initial commitment to dependency upon Whites. However, Aborigines at Diamond Well successfully transform cash into commodities which are wholly Aboriginal in their value and in the manner in which they are subsequently exchanged. Aborigines are able successfully to establish that they pursue business which is categorically outside of the control European Australians.

Drinkers become sentimental, ebullient and sometimes shamelessly hyperbolic about their home country, their beliefs and religious commitments. Drinkers sometimes stress the intrinsic spiritual value of their sites in the country and of their rituals and religious acts. This euphoric indulgence is a means whereby the ideology of Aboriginal religious belief is stressed and claimed to be as worthy and as of much value as anything the White man can muster. In the drunken state a man is able to convince himself, and perhaps others too, that his own beliefs are indeed a viable alternative to anything the European Australians can offer.

In summary, then, we state that drinking and the intoxicated state it produces are used by Aborigines to develop actions which are statements of alternatives to compliance with power. Actual physical coercion or physical strength is an effective means whereby power is challenged. The organisation of drinking and the stressing of the value of Aboriginal beliefs are means whereby Aboriginal transactions and values are sustained in a manner deemed to be independent of European Australians. We have also noted that the effectiveness of these strategies is limited by constraining factors, but the designated meanings of the drinking act are nonetheless real for those who indulge in it.

#### The New Christianity

A new Aboriginal Christianity was subsequently adopted by some, though by no means all, of the drinkers at Diamond Well. Drunkenness and Christianity at first glance appear to be dissimilar, but the pursuit of each activity can achieve similar ends. Christianity supplies a satisfying alternative to compliance and is more supposed than real because it is a matter of belief and faith rather than manifest outcomes. There is no physical violence in Christian practice, so the powerless cannot combat the powerful by assault or attack. However, a fundamentalist Christian is assured that damnation (the final assault) will be the end of all non-Christians, while he in turn is sure of a place in Heaven. It is, then, not so much a question of taking coercive action as an alternative to compliance but rather of waiting until God readjusts the status quo. Meanwhile, Christian teaching endorses the notion that all have free access to the ultimate power and a capability through prayer and mediation to alter the subordinate status and powerlessness which is their present experience. Fundamentalist Christianity as it is preached at Diamond Well involves participants entering into a state of mind in which they consider their whole being to be taken over and controlled by spiritual forces. In this state they believe they are in accord with a powerful spirituality formerly manifest as Christ. Aboriginal Christians believe they have access to power. It is then unnecessary for them to drink in order to demonstrate that they are not powerless.

#### The Failure to Remedy Powerlessness

Drinking is a positive expression of an alternative to compliance which Aborigines use in a vain attempt to rectify their powerlessness. But because they act out their expressions within the context of their very powerlessness they are ineffective in achieving any change. This can be explained as follows.

When there are two systems engaging one another then there is a dynamic. To characterise the two systems of interaction is to describe this dynamic and to describe the dynamic is to account for social process. We have characterised social structure at Diamond Well as an asymmetrical relationship between those who are superordinate and those who are subordinate. In a symmetrical relationship reciprocal exchanges between constituent groups create the dynamic through which the two systems are perpetuated and constantly modified in relation to one another and with respect to one another. Social process is modified through time by the effect one group exerts upon the other by virtue of superior access to

goods, or the obligations it elicits from the other. In an asymmetrical relationship, that is, one in which one group has much power, the other very little, the social form is perpetuated through a dynamic in which little account, if any, is taken of the powerless by the powerful. This is because those in a more powerful position have nothing to gain and much to lose by embarking upon interaction which might produce a dynamic resulting in modification or change in the power imbalance which is in their favour. Blau notes that,

...vested interests and powers, established practices and organisation, traditional values and institutions, and other kinds of social investments are forces of stability and resistance to basic social innovations and reorganisation (1964:338).

At Diamond Well the existence of an asymmetrical power relationship between European Australians and Aborigines results in an equally asymmetrical interaction between the two groups, so that while the interaction between the groups is sustained through social process, the dynamic does not allow for a change in the social formation because the interaction is controlled by the powerful who stifle and inhibit structural modification.

The substance of the exchange transactions at Diamond Well are a series of acts to which we have attributed both implicit and explicit meanings. In short, we have described how some Aborigines when drinking or being Christians are making statements about their subordinate status and developing alternatives to compliance. We have shown that in some cases these actions are real alternatives to compliance even if only for a short period of time. Aggressive violence, for example, is a real alternative to compliance. Other actions are based on wholly mythical assumptions which have no substantive effect on their powerlessness. However, the interactions which drinking or Christianity occasion can be, and often are, controlled by European Australians, who can decide when to intervene should it threaten their position. The exchanges between European Australians and Aborigines are one-sided and controlled and directed by Whites as they see fit. Moreover, the meanings of the acts perpetrated by Aborigines are either disregarded, ignored or made to be of no consequence by European Australians who thereby render them of no account in any transaction.

Some European Australians understand drinking as the cries of a dying race, others as the despair of those who lack initiative and imagination and have no self-control. At best, many European Australians understand excessive drinking as a sickness whose victims should be given remedial care or medication. Similarly, Aboriginal fundamental revivalism is regarded as a transitory ephemeral child-like faith which lacks sound theological doctrine and, on close inspection, is marked by synchronistic beliefs which should be discouraged.

The one-sided interaction and its associated frustrations which are the experience of Aborigines have been described elsewhere in Australia by R.M. Berndt (1962). On Elcho Island the Aborigines brought out sacred objects formerly never seen in public. They anticipated that the European Australians would respond by giving them greater political autonomy and some material benefits. The Europeans were unaware of the implications of

the Aboriginal action (ibid:84). The power balance remained unaltered, the Aborigines unappeased. So too at Diamond Well, the drinking continues while the Whites remain unaware of the implications of the acts, or rationalise them so that they can explain them without having to understand what they mean.

We have shown that within a definable structural relationship there is an interaction between members of component parts which we have described by developing the meanings of observable acts. This relationship of structure and meaning has shown that the interaction is constrained to the extent that the drinking act has a meaning for the Aborigines which is seldom, if ever, understood by European Australians. The dynamic which accounts for social process is one effectively dominated by Whites and allows for little if any synthesis of constituent parts. As a result, Aboriginal expectations, demands and desires, though present and expressed, are inadmissible to exchange transactions. Consequently the social formation is sustained more or less unmodified. Both drinking and Christianity are ineffective in changing the powerlessness of Aborigines, not because they are intrinsically unsuited to the purpose, although we have noted some serious flaws in their potential effectiveness, but because they have been adopted by a group that is constrained in its action by existing structural powerlessness which can only be remedied by radical innovative change.

Although drinking and Christianity are ineffective in creating real structural change they should be understood as bold attempts by the helpless (but not hopeless) to remedy their situation by demanding positive responses from European Australians. It is sad to consider that until recently excessive drinking was possibly the only avenue left open to Aborigines deprived of any opportunity for political formations. The Aborigines were economically dependent upon European Australians for their very existence and were, as a result of social dependency, unable to adopt independent action. Aborigines have shown themselves capable of much independence during thousands of years, and there is no reason why they should not do so again. But in order for this to eventuate they need first to gain real economic and social independence from European Australians, and to live their own way outside the colonial third world which has been the only birth-right of so many.

While we accept that this is a utopian ideal, it is better for men and women to work in the long term for an ideal, rather than in the short term for ideologically ill-considered convenience which will ultimately be of benefit to no one.

### CONCLUSION

In their attempts to direct and curb Aboriginal drinking acts, Europeans associated with this community have consistently misunderstood and misread the actions performed by Diamond Well Aborigines. There have been four major assumptions made about the drinking at Diamond Well:

- a) The first was that the ready availability of beer at the Canteen would lessen the demand for fortified wine (port) and therefore bring the carting of wine to an end.
- b) The second was that the reallocation of beer cans by gambling (Two-up) indicated that the supply of beer was 'inadequate', and that gambling was in any case a problematic exercise which encouraged ill-feeling.
- c) The third was that structured educational programmes would be able to instruct Aborigines how to drink 'properly', and alert them to the deleterious effects of excessive drinking.
- d) The fourth was that the Aboriginal community and its Council had both the desire and the power to intervene in or prevent uncontrolled drinking.

All four assumptions were incorrect, and yet they have guided missionaries, government officials and even funding allocations to the community. The assumptions continue to be important and remain central to the development of community policies regarding drinking.

The instigation of the Canteen was, as we have shown, not a purely altruistic innovation on the part of the Lutheran Church. Its inception made no impact whatsoever upon the business of running port from outside sources through the use of taxis and later Aboriginal-owned vehicles. The Canteen may have had some beneficial impact in the sense that it provided an overt statement for the Aboriginal people of their right to purchase alcohol on their own premises. The Two-up game was a means by which the Aborigines undermined the White-imposed regime of the Canteen and transformed it into a wholly Aboriginal exploit. It did not evolve necessarily because the ration was inadequate but because the game injected a social and interactional component into an otherwise bland interchange. We found no evidence to support the assumption that the gambling itself aroused ill-feeling or hostility among participants.

Aborigines at Diamond Well have evolved a style of drinking which acts to fulfil certain requirements. They drank large amounts of port, irrespective of the availability of beer, though consumption was related to availability of cash and vehicles. They drank in their camps rather than in the settlement, with their own choices of drinking partners and on their own terms. It was generally accepted that drinking was synonymous with getting drunk - this was in fact the desired state. When the state of drunkenness was achieved, then other business could be accomplished - assignments fulfilled, arguments fought through, Europeans accosted - all encompassed and protected by the state of desocialisation which drunkenness wrought. Attempts to trammel and contain these established and deliberate patterns of consumption through instruction on the dangers of intoxication,

or even undisguised efforts to make Aborigines drink in the Western 'sociable' sense have, in the past, failed and will probably continue to fail. The fourth assumption is less easy to criticise. It has to do with matters of jurisdiction and of responsibility and is veiled with the jargon of self-determination and decision-making. Affairs on Aboriginal settlements, as we have stated, are ostensibly under the control of their Aboriginal Councils but are, in effect, strongly influenced by immediate and more distant advisors and government policy. Suggestions that 'something' must be done about drinking arose largely from concerned Europeans and occasionally from abstainers or ex-alcoholics among the Aboriginal population. These suggestions, accompanied by examples of disruptive behaviour, have been endlessly mooted at Council meetings over at least a decade. Councillors (some of whom were drinkers themselves) were expected to consider a variety of means by which their own drinking behaviour was to be contained. Moreover, men and women whose area of jurisdiction and influence over others was contained within certain structural boundaries were supposed to pass judgement, in effect, on others and interfere in the drinking business of social groups over which they had no right or powers of jurisdiction. Despite a public display of concern over the issue of drinking, evidenced by the minutes of Council meetings, the members of the community subscribed to the view that drinking was a universal right. As a result of this belief they avoided committing themselves to long term or authoritarian intervention strategies on the one hand, while simultaneously instituting minor 'rules' of comportment to keep the Europeans happy, on the other.

So what do we conclude from these observations and data? We have set out to show that drinking at Diamond Well is complex social action involving exchange of goods, the creation and discharge of debts and obligations and the effecting of a business so thoroughly Aboriginal that it has long been misunderstood, or dismissed, by European Australians who have failed to comprehend its complexity. Far from being the anarchistic acts of a despairing minority in chaos and confusion, drinking at Diamond Well is ordered, skilfully executed and governed by rules and procedures agreed upon by participants. This much we have demonstrated.

On the other hand, we have also shown in Chapter III that the sociological and physiological effects of drinking are generally negative and sometimes fatal. The injuries treated in the Clinic constitute a substantial part of the nurses' daily workload. Drinkers disturb non-drinkers, terrify wives or non-drinking kin, make unreasonable demands, are violent and often disruptive. Drinking can shatter the peace of the community, rendering daily tasks impossible to fulfil and sending White staff running to the comparative safety of their houses. The picture is bleak, the damage to life and property not to be understated. Why then do Aborigines choose to order their lives with so much care while enduring the legion of deleterious effects detailed in this report?

We have stated that drinking is a means whereby Aborigines attempt to remedy their perceived powerlessness in the ordering of their own community affairs. To be without power is to suffer the ignominy of being manipulated and directed, controlled and governed by others, many of whom do not understand or wish to understand Aboriginal priorities, aspirations or goals. However, the avenues open to them to remedy such a situation are few. As a result of their lack of an economic base and subsequent

dependence upon European Australians, coupled with their relative inexperience in matters relating to the wider Australian community, they have little likelihood at present of effectively altering the status quo. Aborigines at Diamond Well have control over neither resources nor land and have nothing with which to bargain. The very powerlessness which they seek to remedy is itself a major impediment to overturning the situation. With few options open to them, the Aborigines have embarked upon the social business of drinking and becoming drunk in order to gain access, so they may believe, to power. Few, we think, would challenge the view that drinking at Diamond Well is a success. Moreover, drinking is social action which is both seen and heard by Whites, either living on the settlement or merely visiting it.

The social organisation of drinking is, then, a series of acts embarked upon by men and women who, aware of the cost, have little alternative if they wish to attempt to remedy their powerlessness. The sad part is that the social and physical cost is so high and the means employed have no chance of success because they rest upon a wholly mythical assumption: that the altered mind state of the drunk gives access to power over goods, services and people, otherwise unobtainable. However, in this way Aborigines seek to achieve that which has been consistently denied them by European Australians: power to control their economic as well as social affairs in an autonomous dispensation. Such a dispensation was formerly enjoyed by them as land owners and masters and mistresses of their own domains and controllers of their own sources of wealth and subsistence. Effective restoration of the economic base is one sure way to remedy their powerlessness.

## FOOTNOTES

- 1 As with criminal behaviour 'social background' theories can be used deterministically, suggesting that oppressed people are unable to rise above their circumstances in a positive way.
- 2 At the settlement people can purchase beer. It is the focus of certain actions which occur after drinking has taken place - actions which are noisy and public and intended to be so.
- 3 Under the Licencing Act 1967-73 (S.A.) Section 17. (See Eggleston 1976:261.)
- 4 Dr R. Penny, personal communication, 11 January 1982.
- 5 The quantities of alcohol purchased and consumed will be discussed in Chapter III.
- 6 A carton contains 24 cans of beer.
- 7 There was one case in which one man attacked another with an axe, but later complained to police that his victim had refused to give him port wine, and that was why he had attacked him with the axe. The severely injured man responded by claiming that his assailant was too young to drink, and that was why he had refused him port. Both men justified their action by reference to the drinking rules.
- 8 During the period from April 1981 - August 1982 there were four assaults on White staff that we knew about.
- 9 A Community Advisor of Diamond Well informed us that 'they only need a drop' in order to get drunk.
- 10 This refers to the popularity of accompanying gospel singing with electric guitars.
- 11 She stresses that if children were alert, active and happy in the midst of an episode of illness, or when distressingly unhealthy, they could not be designated as suffering from parental neglect. A case of real neglect is described in which the community disregarded the loneliness and distress of a child (1982:60,62).
- 12 On average the White staff consists of 24 adults. There are 11 teachers who work at the school.
- 13 As a lawyer pointed out, in effect, European justice is being differentially applied. Minor offences by juveniles at Diamond Well against White property and very serious assaults and manslaughter offences are reported and brought before the courts. The middle-range level of assaults pass unreported.

- 14 We were unable to obtain sufficient responses to some questions in the questionnaire to make any meaningful presentation of data.
- 15 Dr P. Pols (pers. com. 1983) has pointed out that at least three of the conditions noted (clot from mitral valve replacement, duodenal ulcer and hemiplegia) are not necessarily understood to be alcohol-related. Clinic staff, however, diagnosed these conditions as alcohol-related based on their familiarity over several years with the individuals concerned. In their opinion, then, alcohol consumption was a major contributory factor to the morbidity.
- 16 Information from N.T. Drug and Alcohol Bureau.
- 17 Personal communication, June 1982
- 18 P.M. & C.H. Berndt (1964:183) refer to the gordi (their spelling), the spirit which is released on completion of the mortuary rites. Part of the spirit remains as a mamu to haunt the living.
- 19 However, it is not unknown for women to be speared in the thigh in Aboriginal Australia. Meggitt (1975:100) in his study of the walbiri, notes that a 'gentle' thigh spearing was recommended as a punishment by a husband to his wife (ibid:100) Meggitt details fights in which individuals sustained injuries to many different parts of their bodies: back and shoulders, fingers and heads (ibid:183,176,177). These were not, however, alcohol-related.
- 20 See Appendix IV
- 21 In 1982 Aborigines owned 28 percent of the N.T. freehold as a result of the land rights legislation passed in 1976. However, only 0.3 percent of this is productive pastoral country. Aborigines constitute 21.3 percent of the population of the N.T. Over 50 percent of productive pastoral country is owned by interstate and overseas investors.
- 22 It takes approximately two hours for a skilled and fast craftsman to make a boomerang. This will earn him \$4. Prior to this, of course, he must select and cut suitable wood. This may involve travelling many kilometres from the settlement.
- 23 For example, from 6 October to 6 November 1981 wages at Diamond Well amounted to \$16 828 and pensions of all sorts to \$22 516.

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## APPENDIX I

A/R HEALTH CHECK SHEET

DATE: .....

CASE I.D. (eg initials, code no.) .....

AGE: (circle one) infant school age adult

SEX: male female

VISIT NO. (circle one) 1 2 3+

A/R ILLNESS

DIAGNOSIS: .....

.....

.....

Patient has been treated (for this illness) for

(circle one) 1 2 3 4 5+ years

Has this ailment required hospitalisation? yes no

A/R INJURY

(Circle relevant injury or injuries) bruise laceration

fracture burn

INJURY TO: (specify part of the body) .....

.....

Will the patient be hospitalised? yes no

SEVERITY OF INJURY (circle one)

1

2

3

4

5

6

(e.g. Minor,  
limited area,  
superficial  
wound etc.)(e.g. Medium,  
wounds affe-  
cting wider  
area, or  
single more  
severe injury)(e.g. Major,  
extensive  
&/or severe  
injuries).

Death

ASSAILANT (if known, circle one)

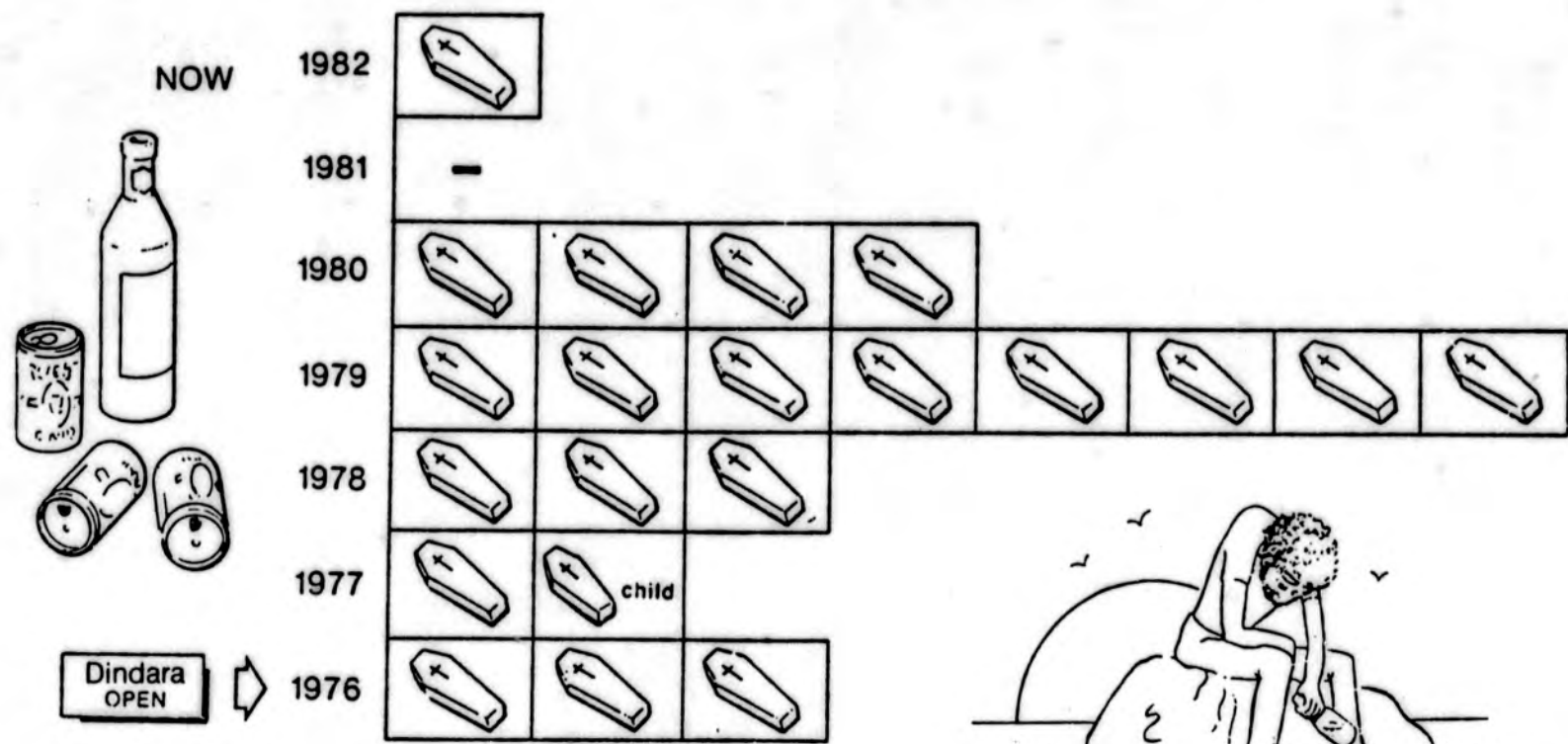
spouse

sibling

offspring/parent

other

### Diamond Well people who have died from Alcohol-Related causes (Illness, Injury, Vehicle Accident)



(These ANANGU died from drinking wine)



## APPENDIX I

A/R HEALTH CHECK SHEET

DATE: .....

CASE I.D. (eg initials, code no.) .....

AGE: (circle one)    infant        school age        adult

SEX:    male                female

VISIT NO. (circle one)    1    2    3+

A/R ILLNESS

DIAGNOSIS: .....

.....

.....

Patient has been treated (for this illness) for

(circle one)    1    2    3    4    5+ years

Has this ailment required hospitalisation?    yes    no

A/R INJURY

(Circle relevant injury or injuries)    bruise    laceration

fracture    burn

INJURY TO: (specify part of the body) .....

.....

Will the patient be hospitalised?    yes    no

SEVERITY OF INJURY (circle one)

1

2

3

4

5

6

(e.g. Minor,  
limited area,  
superficial  
wound etc.)(e.g. Medium,  
wounds affe-  
cting wider  
area, or  
single more  
severe injury)(e.g. Major,  
extensive  
&/or severe  
injuries).

Death

ASSAILANT (if known, circle one)

spouse

sibling

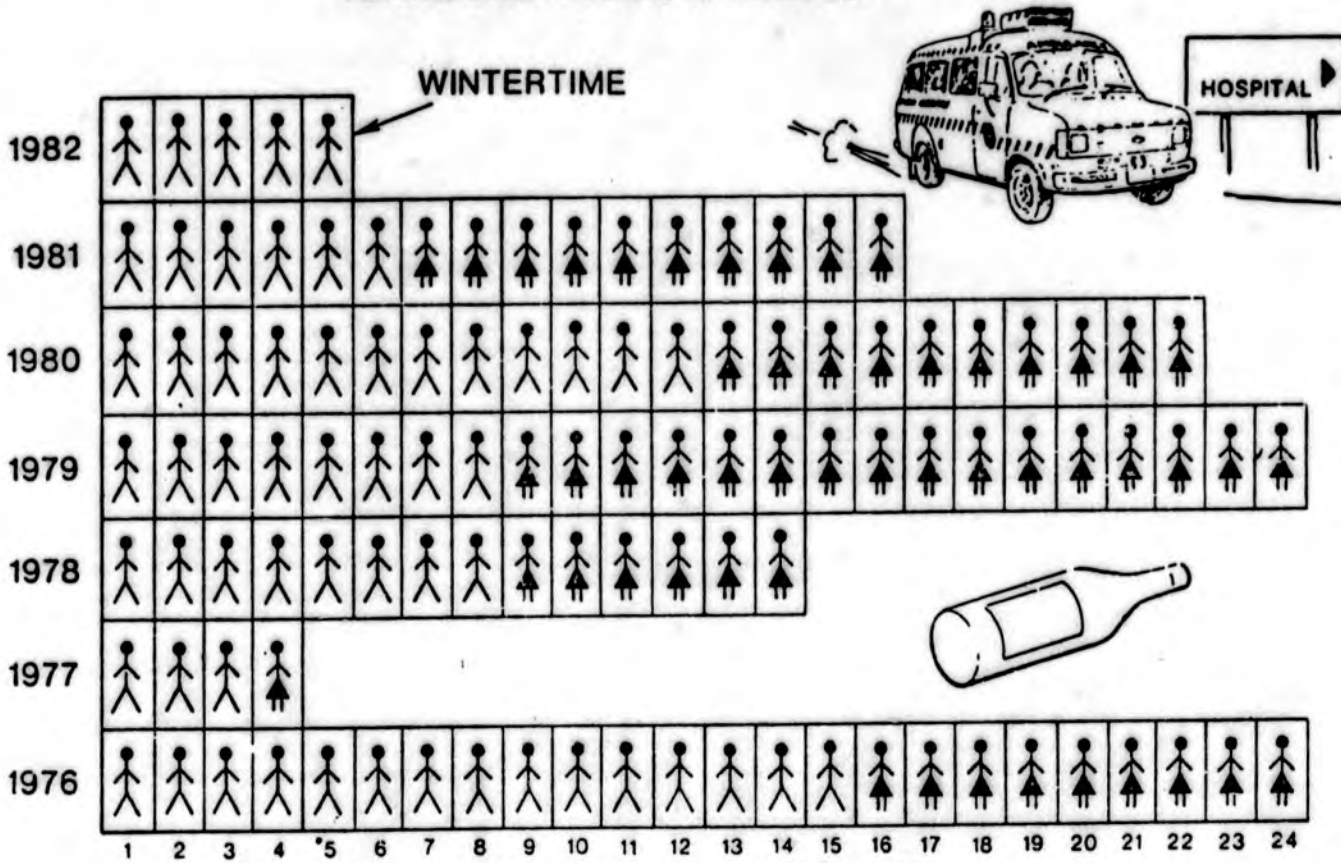
offspring/parent

other

### Diamond Well people evacuated to town hospital for Alcohol-Related causes

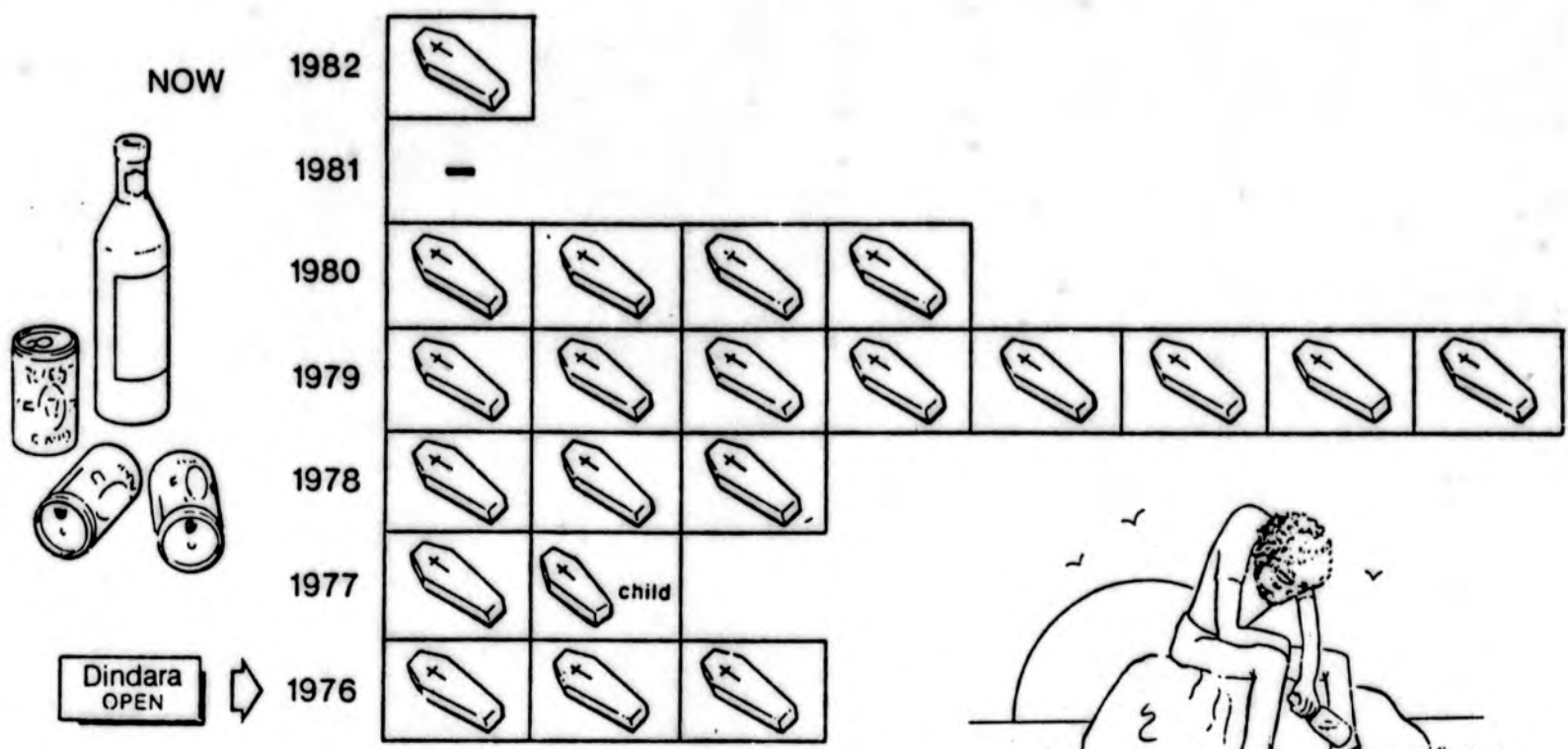


Dindara OPEN



(These ANANGU went to hospital sick or hurt from wine)

### Diamond Well people who have died from Alcohol-Related causes (Illness, Injury, Vehicle Accident)



(These ANANGU died from drinking wine)

## APPENDIX IV

Information on the diagnoses of alcohol-related illnesses which resulted in death was available from 1976 to June 1982. We would point out once more that the diagnoses were approximations of the cause of death.

## Deaths by alcohol-related illness of Diamond Well Aborigines 1976-1982

Year	Cause of death	Sex	Age
1976	Nil		
1977	Dehydration & bronchopneumonia	Male	45
1978	Uremia	Female	41
	Alcohol poisoning	Male	61
1979	Alcohol poisoning	Male	42
	Alcohol poisoning	Male	49
	Clot from mitral valve replacement	Female	46
1980	Cardiovascular accident	Male	33
	Hepatoma	Male	42
1981	Nil		
1982	Liver failure	Male	44
	TOTAL deaths:		9

ALCOHOL AND DRUG USE AMONG  
YOUTH IN THE NORTHERN TERRITORY:

BIBLIOGRAPHY AND REVIEW OF  
EXISTING RESEARCH.

by Maggie Brady

Alcohol and drug use among youth in the Northern Territory:  
A bibliography and review of existing research. (From a report  
commissioned by the Office of Youth Affairs, Canberra).

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4.2	List of references on drug use in the Northern Territory	

## 1. Summary of Bibliographical Items

In June 1983 the Office of Youth Affairs in Canberra asked for a review of the current extent of knowledge about drug and alcohol use by young people in the Northern Territory.

As a result of this request, local agencies and relevant Government Departments were contacted and the following bibliography and overview of existing research were compiled.

A literature search revealed sixty-four items which referred to the Northern Territory; forty-one were on alcohol use. Two of these were mentioned meths drinking. There was one article on 'Rinso' eating, and one article on petrol sniffing also referred also to clay-eating (pica). Apart from these two 'drug' uses, the entire drug literature available refers to petrol inhalation, and totals 22 items.

All the petrol sniffing material related to youth and all were on Aboriginal youth. However there was only one item which specifically considered youth and alcohol in the NT (NT Liquor Commission, 1979) and that study of Under-Age Drinking includes Aboriginal and non-Aboriginal children. Of the 40 remaining items on alcohol use, only eight refer to youth and alcohol briefly.

Most of the material sighted was published in journals or books (32 items). Eleven were Government publications (e.g. Reports, Conference Proceedings, etc.); two were University theses (both on Aboriginal drinking); and 19 were unpublished local ephemera.

Half of all the material examined was published between 1976 and 1980; 16 were published before 1975 and 13 published since 1980.

Of the 41 items on alcohol, 29 considered Aboriginal drinking. Only two (Dodson, 1981; Leary et al., 1975) refer in passing to Aboriginal youth and alcohol. All the petrol sniffing items (22) and the 'Rinso' eating (1) relate to Aboriginal children. Petrol sniffing is known to occur among young adult Aborigines in the NT, however no item specifically referred to adult sniffing. Altogether, then, alcohol and drug material reviewed referred specifically to Aboriginal people in 52 out of the total of 64 items examined.

Research or comment on petrol sniffing focussed most frequently on Arnhem Land. Elcho Island and Maningrida appeared to be communities notable for the practice - however this may be because a small group of researchers had access to these communities, returned to them on several occasions and published additional material (e.g. Nurcombe, 1970, 1972, 1973, 1974; Eastwell, 1978, 1979). The 'Rinso' eating item referred to a community in Arnhem Land. Four items referred to petrol sniffing in Central Australian communities and four were relevant generally to the NT.

In contrast, alcohol items were more evenly spread over the NT, with 16 being of general NT content and only eight on Arnhem Land. Two of these related specifically to the Alligator Rivers regions (Allen, 1980; Fox, 1977). Seven items focussed on Alice Springs town and town camps, and six

on Darwin town and fringe camps. Only four items referred to Central Australia other than Alice Springs.

Methodologically, about 50 per cent of items were sociological in orientation, followed by those of a socio-legal framework. These included quasi-legal aspects associated with petrol sniffing, anti-social behaviour and community punishments. Eleven out of 64 were medical or psychiatric in orientation - however these 11 items contain considerable re-working of the same material (e.g., Nurcombe).

Twelve items considered the law itself - i.e. liquor laws, licences, restricted areas, or were submissions to change the law. All these referred to alcohol rather than drug use. Most of the material examined considered the individual and the social group rather than examining court statistics.

Large surveys were rare - there were only six items which could be designated as surveys over several communities or localities in the NT. One of these was the Under-Age Drinking Study (NT Liquor Commission, 1979). Twenty-two items could be considered to be small 'surveys', some of a 'personal observation' type. Only seven items contained statistics of any note, mostly on alcohol rather than petrol sniffing. Most of the available material was of a personal observation 'welfare' type rather than actual data collection or questionnaires - however some of these observations are by those experienced in the field with intimate knowledge of either the communities concerned or the subject matter. Eight items were based on anthropological participant observation methodology.

Ten items were in the form of submissions to Government enquiries or were the Reports of Government enquiries. Six were conference or workshop papers (e.g. ANZAAS).

The overall impression from this review is that there is a dearth of research into alcohol use among NT youth (one study, a few statistics), and a total absence of any literature documenting youthful drug abuse other than petrol sniffing.

Several individuals and agencies contacted complained of the inadequacy of the compilation of statistics on related areas (alcohol/drugs/crime) in the NT.

## PUBLICATIONS AND DOCUMENTS OF PARTICULAR INTEREST

Although what follows does not always have specific reference to youth in the NT, these are items sighted to which I would draw particular attention. All are referred to in the Bibliography at the end of this Report (Section 5).

### Reports

The Adams Report (1973) is a comprehensive document reporting on a Board of Inquiry investigation into the NT liquor laws. Apart from much detailed information on licensed premises, trading hours, convictions and other quasi-legal aspects, it contains case histories of the twelve 'worst offenders for drunkenness in Alice Springs', and discussion on liquor on Aboriginal Reserves. The Report concluded that the licensing system in the NT needed review and that its inadequacy contributed to the excessive consumption of liquor in the NT. In keeping with these conclusions, the Report recommended, among other things, the establishment of a Liquor Commission, redrafting the Liquor Ordinance, changes in trading hours and the instigation of educational programmes.

Another influential Report was the Hawkins-Misner Report of 1974. It recommended the decriminalisation of drunkenness. It also suggested the establishment of a detoxification centre in Darwin. The Liquor Commission's Reports are noteworthy (1979, 1982, n.d.) as they are excellent pieces of research based on substantial fieldwork and consultation. Their 1979 Study of Under-Age Drinking is the only one to deal specifically with youth.

The Liquor Commission's Report utilised questions which conform to those used in the Commonwealth Department of Health Survey. It is the only substantial survey of its kind in the NT. Questionnaires were sent to all NT high schools, totalling 5,500 pupils in all, between 12 and 17 years of age. Aboriginal schools were not surveyed but three Aboriginal colleges were included. 68 per cent of the school-attending population between those ages returned completed questionnaires. Unfortunately the Alice Springs part of the survey was largely invalidated as only 16 questionnaires were returned (out of 700); no explanation for this was apparent. The study also involved the convening of seminars in Darwin, Alice Springs, Tennant Creek and Katherine.

Not surprisingly the findings revealed that a 'significant majority' of 12-17 year olds do drink alcoholic beverages, at least occasionally. The frequency of consumption rises sharply from 15-17 years. As the Liquor Commission Report concluded,

The study has led to the recording of basic information on underage drinking... The information obtained will be valuable in future studies (1979:6).

The only other study of alcohol in the NT which has attempted a survey was conducted under the auspices of the Regional Council for Social Development in Alice Springs (Wauchope, 1975). Ms Wauchope collected statistics on alcohol consumption in the NT and data from Alice Springs on

offences, accidents and treatment programmes in the alcohol-related area. 3000 questionnaires were circulated to Alice Springs residents (of which 413 were returned). The questions tapped the perceptions of the public on alcohol use in the town. 107 high school students were consulted (Leaving and Matric levels) and Wauchope found that all but one said they had drunk alcohol at least once; 68 per cent had been 'tipsy' at least once, 52 per cent said they drank at least once a fortnight.

Thirty interviews were conducted with Aboriginal fringe campers, most of whom were 'younger men' - age not specified.

Submissions to Enquiries, for funds etc.

There are two submissions I shall mention: Cutter and Perkins (1976), and North Australian Aboriginal Legal Aid Service (NAALAS) (1981). Neither relate to youth but both contain valuable grass-roots information on the drinking patterns of Aboriginal people. Cutter and Perkins' submission for funds for an alcohol rehabilitation project/farm in Alice Springs was successful. Reference is made in passing to petrol sniffing. NAALAS wrote its submission in June 1981 in response to a press release issued by the Chief Minister in May concerning drunkenness and drinking in public places. This was to be the precursor to the 'Two Kilometre Law'. NAALAS expressed concern that the Government's proposals would cause mainly Aboriginal people - rather than European Australians - to fall foul of the legislation.

In 1975 a team of four people (three of whom were Aboriginal) conducted a 'general survey' of the causes and effects of alcoholism among Aborigines. This was as a result of recommendations of the Interdepartmental Committee on Alcoholism and Aborigines. Their Report (Leary et al., 1975) provides a useful overview of treatment and therapeutic facilities for Aborigines across Australia and Aboriginal opinion on the causes of, and possible intervention in, alcoholism.

A section in their Report is devoted to 'the Problem in Youth' and begins with the often expressed view that 'the authority structure had broken down and young people were going their own way' (1975:22). Attempts to rectify this perceived situation are described (i.e., reinstating Aboriginal 'Law') as are the difficulties encountered (i.e., young people were more interested in alcohol than in ritual affairs).

Leary et. al. suggest a variety of solutions: canteens, clubs, an educative task force. The writers express the view that 'preventative work in alcoholism must be given top priority' (1975:32). The issue of prevention is also discussed in Dodson (1981) - his realistic approach being that little change will take place in the dominant role played by alcohol in Australian society. Dodson describes what he calls the 'seed bed' for a life of excess drinking in a nine-year-old Aboriginal boy he met. 'When life pressures and the continuing colonising process threaten this lad, it's to this kind of environment he will be attracted. His memory will remind him where the seed bed of his emotional life was formed' (1981:10).

### Research studies on petrol sniffing

Nurcombe et al (1970) undertook a study of petrol sniffing at Elcho Island which was psychiatric in orientation. They selected 44 children (22 sniffers and 22 controls) and administered a behaviour and family background questionnaire. Their results were inconclusive, there being only a trend for petrol sniffers (degree of sniffing is undefined) to be 'slower' at school and to come from two particular clans. Eastwell's (1979) Maningrida study has been much quoted, particularly by the medical/psychiatric profession in the south. However, anthropologically his material is questionable, and Elsegood (n.d.), a member of the Community Development Remote Area Team, has disagreed with Eastwell's findings. Eastwell's analysis hinges on the absence of outstations for petrol sniffing clans, a state of affairs more complex than his account allows.

Morice, Swift and Brady (1981) have produced a Resource Manual which overviews the medical, psychological and sociological research on petrol sniffing in Australia. It provides what factual knowledge there is about the effects of lead and hydrocarbons and documents the interventions that have been attempted by Aboriginal communities throughout Australia (including the NT).

Hayward-Ryan (1979) reviewed the state of petrol sniffing in the NT by sending a short questionnaire to chairmen of community councils. He asked for the number of sniffers (but made no distinction between chronic or occasional sniffers), clan groups, whether girls were involved, and names and ages if possible. He presents figures from nine localities across the NT, as at December 1978, on the assumed number of sniffers. Galiwin'ku, Yirrkala and Maningrida figures are broken down into clan and language groups. Hayward-Ryan makes some useful comments, and ends by recommending further research and the involvement of the National Aboriginal Conference.

### Anthropological Studies

Since the mid-1970s some valuable anthropologically-oriented alcohol research has been written up. Reid and Mununggurr (1977) document the alcohol-related deaths of two Aboriginal men and the imputations of sorcery that ensued. The authors call for greater respect from health professionals for Aboriginal belief systems. Sansom (1977, 1980) and Collman (1979, 1980) each provide analyses of Aboriginal drinking patterns in town and fringe camp situations, the former for Darwin, the latter, Alice Springs. Stead (1980) compares two Aboriginal localities and the drinking business which takes place away from urban centres. He discusses the Central Australian Pintubi and the settlement of Borroloola, south of east Arnhem Land.

The 'two kilometre law' and the impact on drinking of town housing schemes with active Aboriginal councils are discussed by O'Connor (1983a, 1983b). However none of these items relates to drinking among young Aborigines. This may be because in at least some Aboriginal communities, drinking is an adult affair; petrol sniffing is 'kid's business', and the two age groups adhere to their choice of preferred intoxicant.

Overall there has been surprisingly little research undertaken in the areas of youthful drug taking and drinking in the NT. The only survey of drinking (NT Liquor Commission, 1979) was, methodologically, a straightforward questionnaire. The Liquor Commission's other research combined extensive consultation and fieldwork by known and sympathetic personnel with the compilation of hard data on alcohol sales. Research which blends participant observation with a precisely-aimed survey is one way of providing a balanced account. The findings from each area thus inform the conclusions drawn from the other, and prevent the statistical data from going 'off-target'. Such a methodology also helps to avoid approaching these issues one-sidedly.

## RESOURCES IN THE NORTHERN TERRITORY ON ALCOHOL AND DRUG USE

### Resource Guides

The NT Department of Health has recently published two useful booklets listing resources in the area of drugs and alcohol. They are:

Directory of Northern Territory Drug and Alcohol Resources (1983)  
NT Drug and Alcohol Bureau, NT Health. An essential guide to services and potential sources of current knowledge on alcohol, drugs and youth. Gives addresses, phone numbers and types of service.

The Media: A guide for workers in the health field with special reference to alcohol (1983).  
NT Drug and Alcohol Bureau, NT Health.

The Department of Health has also published a volume entitled Alcohol Policies for the 1980s which contains the proceedings of the conference of the same name, in Darwin, February 1980. This contains useful data and comment on the road toll, treatment facilities and vulnerable groups. The Department of Education's contribution focusses on youth education policies concerning alcohol and a curriculum development programme, 'Education about Drugs', is appended (pp. 121-238).

### Agencies in the field

There are several agencies in Darwin, for example, which have extensive knowledge about the current state of youthful drug and alcohol use. These agencies usually keep records of those they see, but naturally much of this information is confidential. However, I can note some examples of organisations which deal with children and adolescents and drug and alcohol use.

Fishermans Hut, Uniting Church, Darwin. A coffee shop, drop-in centre in town. They see some alcohol problems among under-age adolescents.

Sommerville Community Services, Outreach Programme and Drop-in Centre, Darwin (10-16 year age group). The Outreach programme operates a 'pick-up' service, a bus which covers Darwin streets until 3 am. This programme is now in its fourth year. Statistics are kept, but are strictly confidential as individuals are identified. However, the Director was able to tell me that there was, in his experience, little evidence of hard drugs among those they contact. However, alcohol abuse occurs in cycles and involves a range of children and young people from age six onwards. There have been occasional outbreaks of glue-sniffing associated with two major high schools in Darwin, but these outbreaks are sporadic and seem to be associated with a few key people.

F.O.R.W.A.A.R.D. (Foundation of Rehabilitation with Aboriginal Alcohol Related Difficulties) reported that they dealt with no under-age drinkers or drug cases.

The NT Police Department's Drug Squad collect statistics on the number of charges laid and amounts of drugs seized. These are monthly statistics passed onto bodies such as the NT Drug and Alcohol Bureau. However they do not have a uniform method of collecting statistics which would relate particular crimes to alcohol or drugs (other than breath-testing/driving offences).

Banyan House (Forster Foundation for Drug Rehabilitation), Darwin, produces bi-annual Reports to the Forster Foundation which contain statistics on their resident/outpatient/contact clients, their drugs of choice, history of drug-taking, family and ethnic background and other details. A spokesperson commented that the current trend is for multi-drug use (rather than pure heroin addiction as was the case 4-5 years ago). Banyan House take individuals from 18 years onwards, except in cases where a younger person is firmly entrenched in hard drug use.

The Department of Health Annual Reports include data on alcoholism and drug addiction, although prior to 1979 the Reports were very brief. From 1983 onwards there will be a section on alcohol and drug use statistics within the Department of Health Annual Reports. This will take the place of the Department's Quarterly Bulletins, which ceased in 1981.

A valuable compilation of statistics was published by the Department of Health in 1981: Some Statistics on Alcohol use in the Northern Territory (extract from the Department of Health Bulletin issue no. 31, quarter ending 31 March 1981). This compilation provides an overview of the major developments in alcohol policies and the recommendations of various Government Enquiries. It describes how the NT Drug and Alcohol Bureau came into being and describes one of its functions as being 'to monitor and report on alcohol and other drug issues in the Northern Territory' (1981:2).

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## The social and political significance of two Swedish restrictive systems

BY PER FRÅNBERG

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### Background

When the United States, Finland, and Norway chose prohibition as a method of solving the problems related to alcohol, Sweden had already chosen another path with the introduction of the Bratt system in 1917. The Bratt system, which gave the Swedish government supreme control over the trade in liquor, was, however, not regarded as a final solution by members of the temperance movement in Sweden, who instead regarded the system with contempt and suspected an attempt by their adversaries to put the question of prohibition on ice. Their assumptions were to be proved right. The Bratt system contented many former prohibitionists, and the hard-liners thus lost the final battle in the referendum for prohibition held in 1922.

The Bratt system must be considered as a compromise between governmental financial interests and friends of moderate drinking, especially among politicians with roots in temperance. The system meant great benefits to the state

budget, while private profits in the liquor benefits were remarkably reduced. This fact became obvious even to politicians from the temperance movement who aspired to careers in government. In fact, many of these politicians tried to pour water on the prohibition fire in their own temperance organizations. This became obvious in 1915, when the International Order of Goodtemplars of Sweden met in Umeå. One faction of the Order wanted a policy that aimed at direct prohibition without delay or temporary compromise; another faction, led by the grand master and the professional politicians of the Order, wanted a temporary compromise, which the Bratt system offered, and they pressed for a local veto in questions related to trade in alcohol. The latter faction won the bitter struggle in the Order and the referendum was postponed, but they lost the voting over a local veto in the Parliament. The opponents in the Order claimed that this "tactical policy" ultimately also led to the defeat of prohibition in Sweden.<sup>1</sup>

In my own research on this period and its aftermath, I have concentrated on the city of Umeå and its environs in the county of Västerbotten in northern Sweden. In Västerbotten the sentiment in favor of prohibition was very strong and prohibition as a political question dominated local politics almost entirely. When the Bratt system was enforced, much against the will of the people of the county, there was a strong reaction. The temperance movement in Västerbotten refused to realize that the cause was lost, even after the defeat in the referendum in 1922. The leaders of the temperance organizations in the county lived with the illusion that the only solution to the question of alcohol in society was prohibition and therefore they refused to give in. They also thought that the lost referendum only implied a temporary setback, which meant that temperance organizations all over the country would at last awake and intensify the struggle against the Bratt system until they finally reached their goal, prohibition. Therefore the movement in Västerbotten concentrated its strength immediately after the referendum on minimizing

profits in the liquor benefits were this fact became obvious even to the temperance movement who aspired to the fact, many of these politicians tried prohibition fire in their own temperance. This was obvious in 1915, when the Indemplanters of Sweden met in Umeå. They wanted a policy that aimed at direct prohibition or temporary compromise; the grand master and the professional wanted a temporary compromise, but they refused, and they pressed for a local veto to trade in alcohol. The latter struggle in the Order and the referendum they lost the voting over a local veto. Proponents in the Order claimed that the referendum also led to the defeat of

the period and its aftermath, I have written about Umeå and its environs in the northern Sweden. In Västerbotten prohibition was very strong and the question dominated local politics. When the Bratt system was enforced, much of the county, there was a strong temperance movement in Västerbotten refused prohibition, even after the defeat in the referendum. The members of the temperance organizations with the illusion that the only way to get alcohol in society was prohibition refused to give in. They also thought that a referendum was a temporary setback, which would intensify the struggle against the prohibition. They finally reached their goal, prohibition in Västerbotten concentrated on the referendum on minimizing

the injurious consequences of the Bratt system. It tried to shape a more restrictive system within the Bratt system; as a result of these efforts, the Umeå system emerged, which, without violating the law, in the end was to result in local (county) prohibition.<sup>2</sup>

The Umeå system was to a large extent built on the fact that the law made it possible in practice to enforce a local veto in spite of the rejection of such a reform in Parliament. People were only allowed to buy liquor and wine from special monopoly shops ("Systembolag"). These Systembolag shops were located primarily in the cities, which meant that the rural population had to go to town to get their liquor. Every Systembolag furnished its own limited district with alcohol and customers had to show a book ("motbok"), which told the shopkeeper how much alcohol per month a person was entitled to (a maximum of four liters). The town council had to give the Systembolag an "oktroj" and could thus also limit the rations of alcohol. It was possible to refuse oktroj, but then the inhabitants of the district had the right to move their ration books to another district and so receive their four liters a month. In 1923, when Umeå got a left-wing majority (freethinking Liberals and left-wing Social Democrats), this new prohibitionist council had to confirm the oktroj much against its will, but it cut down the rations to a maximum of one liter per person and also put strong restrictions on the sale of fortified wine. Furthermore, the restaurants and saloons in the district were deprived of their licenses. The chief feature of the system, however, was a manipulation of the age limit. The ordinary limit to get a motbok was 25 years of age. In the Umeå system, this limit was raised every year by one year and would thus guarantee that nobody who had not reached 25 years of age by 1923 would be able to get a book. The city of Umeå and the southern part of the county would be gradually dried out.<sup>1</sup>

The Umeå system was much discussed in the prohibitionists' central organizations and was once launched as a program

for the entire temperance movement. The Umeå system was also the subject of a vote in the Parliament in 1925, but it fell through. The Umeå system did not get any branches in other parts of Sweden and was able to survive for only four years in Umeå. The fall of the system was due to several factors.<sup>4</sup>

*Politically* the system was dependent on a narrow left-wing majority in the city of Umeå. This majority was indeed so feeble that one or two frondeurs could overturn the system. This actually happened when two Social Democrats joined forces with the Conservatives in 1928. The weak point here was that the communities in the countryside, which were up to 90% prohibitionist, were not allowed to give their votes for the system. This was only a matter for the citizens of the town in which the Systembolag was located.

*Economically* the Umeå system caused troubles for shopkeepers and merchants, who complained bitterly that business suffered severely because almost every salesman tried to avoid the dry city. The merchants were generally Liberals and reluctantly had to follow the party line, which was drawn up by the majority of freethinkers. The prohibitionists in the party also threatened a boycott if a merchant should fail to fall into line. So, much against their will, the merchants had to give quiet approval to the system, but a secret plot was under way in their local organization at the time the system was abandoned.

*Control factors* were not sufficient. The chief of police regarded the system as almost illegal and tried to do as little as possible against violations. The police aversion to the system led to widespread vigilantism on the part of the temperance organizations, and this led to a clash with the police which became irreparable. This struggle went on for years and can easily be followed in the city's left-wing newspapers. The editors of these newspapers were the leading politicians of the Liberal and Social Democratic parties and their enthusiasm gave further nourishment to the vigilantist

movement. The Umeå system was in the Parliament in 1925, but it fell and did not get any branches in other areas. It was able to survive for only four years in Umeå. This was due to several factors.<sup>4</sup>

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The Umeå system caused troubles for shopkeepers. They complained bitterly that business almost every salesman tried to cheat. The prohibitionists were generally Liberals and Conservatives, the party line, which was drawn up by the prohibitionists. The prohibitionists in the county if a merchant should fail to pay for alcohol against their will, the merchants had to pay for the system, but a secret plot was made to abolish the system at the time the system was in place.

The Umeå system was not sufficient. The chief of police was considered most illegal and tried to do as little as possible. The police aversion to the Umeå system and the vigilantism on the part of the prohibitionists and this led to a clash with the government. This struggle went on for several years. It followed in the city's left-wing newspapers were the leading force. The Social Democratic parties and the prohibitionists gave nourishment to the vigilantist

tendencies. The bitter war between the left-wing leaders, both members of Parliament, and the police continued during the whole era of the Umeå system and resulted in endless lawsuits from both sides. These controversies furnished the big newspapers in Stockholm, generally on the wet side, with hot stories; the system was genuinely ridiculed and Umeå represented as a town inhabited by fools and fanatics. The campaign in the big-city press made most communities unwilling to test the system.<sup>5</sup>

The Umeå system as such collapsed in 1928, but it managed to survive in parts. The one-liter limit was not abandoned until the late 1930s. The defeat for the temperance parties was confined to the facts that one saloon in the city got its license back and that rations of fortified wine in the motbok were extended a bit. The limited system received a boost when the leader of the freethinking Liberals, Gustav Rosén (the senator), was appointed country governor in 1932. Rosén was one of Sweden's ablest politicians of the time, and many Liberals and Social Democrats claimed that he, and not Carl Ekman, should have been the prime minister of Sweden. With this prominent populist prohibitionist as governor, the Conservatives and the wet Social Democratic minority had little or no chance of altering the system further. Rosén, who was inspired a great deal by the American temperance movement, also tried to introduce a county veto, but this was against Swedish law and could therefore not be enforced.

The purpose of the Umeå system was basically to prepare the ground for a new referendum or a law that would confirm prohibition in Sweden. As time went by, this became something of an illusion when the main temperance organizations became more and more inclined to compromise with the government. To a large extent, this new policy can be explained by the fate of prohibition in the U.S., Finland, and Norway.<sup>6</sup> When these countries began to discuss the Bratt system as a possible solution to their own problems, the

Swedish prohibitionists lost many of their main arguments and drew up a revisionist policy. Only in Västerbotten was the banner of prohibition still waving high.

### The Bratt system and the Umeå system

As shown above, there were many possibilities to manipulate and alter the Bratt system. This is very unusual according to Swedish legal practice. Research into the Bratt system has mainly been done by persons related to the Systembolag or its Control Board ("Kontrollstyrelsen"). Most research does not deal with broader legal and policy questions, but is primarily occupied with technical problems. Historians such as Sven Lundkvist have made great contributions to the understanding of the economic, political, and social background of the Bratt system, but Lundkvist's studies end where the Bratt system begins to function, and many interesting questions about the system are still unanswered.

Lundkvist's research in the field clearly reveals the uncertainty among politicians and parties before the introduction of the system.<sup>7</sup> The Social Democratic party had a majority of prohibitionists at the beginning of the century, as did the Liberal party, where the freethinking Liberals rapidly grew in number. The temperance movement could exert strong pressure on these parties and there were well-advanced plans to form a genuine Prohibitionist party, which would certainly have depleted the two left-wing parties and would have caused an irreparable setback to their march to power.<sup>8</sup> The leaders of the leftist parties, however, were very uncertain as to how to handle questions related to prohibition, but had no intention of making their parties purely prohibitionist. For the Social Democratic party, the connection with prohibition and temperance had been a great mobilizing resource; the leader Hjalmar Branting was rather irritated by the degree to which prohibitionist questions still influenced the party members.<sup>9</sup> Branting and most of the leading politicians in the

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### Bratt system

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party regarded the prohibition question as a hindrance to the solution of far more important issues. Therefore, they tried to tone down the significance the question had in the party and were willing to reach quick compromises in order to sweep it under the carpet.

The Liberal party had to face much the same situation. The leaders, Karl Staaff and Nils Edén, had to keep a minority of so-called city radicals and a majority of freethinkers in the same party fold. The city radicals were generally "wets" and supporters of the Bratt system, and the freethinkers were almost entirely "dry." The latter faction was very disappointed with the compromises that led to the Bratt system and threatened to found a Prohibitionist party of its own, hoping that discontented Social Democrats would join them. The freethinking Liberals dreamed of shaping a broad coalition party of the lower classes and making it a classless people's party. They certainly intended to use the strong grass-roots feeling for prohibition to achieve their goal. (They did not, however, form this party until after the referendum, in 1923, but by then prohibition had already lost most of its attraction.) Under these circumstances the Liberal leaders, who were not personally in favor of prohibition, willingly accepted the Bratt system as a life buoy.

In this situation, the Conservatives, who were against prohibition, benevolently accepted the system. As in the U.S., many industrialists were deeply disturbed by the drinking habits of their workers, which had a retarding effect on production.<sup>10</sup> The Bratt system provided an excellent solution to this problem, since rations were related to the level of tax paid: an entrepreneur was often entitled to four liters a month, while his workers received less. The Bratt system thus was agreed upon by Conservative party leaders as a solution that could reduce prohibition fever.

Dr. Bratt himself was clearly aware of the political dilemmas attached to the temperance question. He therefore had to

keep the system open for local interpretation to a certain degree. Dr. Bratt declared in 1919 that it was possible for prohibitionists on the local level to hinder the formation of a Systembolag in their municipality. In his efforts to keep his system open, Bratt certainly saw himself as a spokesman for the leading politicians and thus could show his goodwill without risking anything.<sup>11</sup> This also indicates that Bratt must have had a strong mandate from leading political circles to shape a smooth system that could be accepted as at least a temporary settlement, even by prohibitionists. The narrow victory for the wet side in the referendum in 1922 underlined further to politicians the necessity of a flexible, functioning system. Under the Bratt system, the Social Democrats skillfully succeeded in neutralizing their prohibitionists in the 1920s.<sup>12</sup> The referendum meant the split of the Liberal party, but the freethinking Liberals very soon became aware that prohibition was no longer a single issue that could support a party; even they became inclined to accept the Bratt system within certain limits, and thus the air gradually went out of the prohibition balloon.

It is under these circumstances that the Umeå system should be seen, as having been formed as a protest against the Bratt system. But the Bratt system had the elasticity to swallow and finally destroy the Umeå system. The strength of the Bratt system was its flexibility, which made extensive compromises practicable, as in the case of the Umeå system.

The Umeå system could satisfy the dour prohibitionists of Västerbotten who had no intention of being overridden by the Bratt system. Paradoxically, the prohibitionists of Västerbotten led the crusade against the Bratt system, the only guarantee they had of being able to apply their restrictive rules. There was only a single protest from one member of the temperance movement in the county when the system fell in the 1950s. This is remarkable, as there was no talk of replacing the Bratt system with prohibition. On the contrary, the new alcohol policy (1955) gave every person the right to



- Notes
1. P. Frånberg, *Umeåsystemet: En studie i alternativ nykterhetspolitik 1915-1945* (Umeå, Sweden, 1983), p. 36; H. Johansson, *Den svenska godtemplarrörelsen och samhället* (Stockholm, 1947), p. 250.
  2. Frånberg, *supra* note 1, ch. 6.
  3. *Id.* at 130.
  4. *Id.* at 151-56.
  5. *Id.* at 139.
  6. Johansson, *supra* note 1, at 96. For the discussion of introducing parts of the Swedish system in the U.S. and Finland, see N. H. Clark, *Deliver Us from Evil: An Interpretation of American Prohibition* (New York, 1976), p. 217; J. Kallenautio, "Finnish Prohibition as an Economic Policy Issue," *Scandinavian Economic History Rev.* 3 (1981).
  7. S. Lundkvist, *Politik, nykterhet och reformer: En studie i folkrörelsernas politiska verksamhet 1900-1920* (Uppsala, Sweden, 1974).
  8. *Id.* at 233.
  9. For the discussion of these questions in Finland, see I. Sulkunen, *Why Did the Finnish Working Class Come to Support Prohibition?*, Report from the Social Research Institute of Alcohol Studies no. 151 (Helsinki, 1981).
  10. L. Engelman, *Intemperance: The Lost War Against Liquor* (New York, 1974), pp. 7, 13.
  11. Bratt, in *Tidskrift för Systembolagen* no. 2 (1918).
  12. Frånberg, *supra* note 1, at 84-89. The party had to treat temperance with silk gloves until its goal, universal suffrage, was finally reached in 1921.

ALCOHOL RATIONING  
AND  
CONTROL SYSTEMS  
IN GREENLAND

by

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ABSTRACT

A semi-autonomous former colony of Denmark, Greenland has suffered the alcohol abuse problems common to both Inuit and Native American peoples and the nations of Northern Europe. From August 1, 1979 through March 31, 1982, Greenland's Home Rule Government attempted to control these problems through individual rationing, later replaced by a public information campaign urging voluntary moderation. Based on original fieldwork, this paper describes these attempts, analyzes their effects on related social problems (particularly crime), and compares them with alcohol control systems in Arctic Canada. Special attention is given to the complex inter-relationships between alcohol politics, criminal politics, and the economic and labor force needs of a developing country.

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Introduction: History

A semi-autonomous former colony of Denmark, Greenland has suffered the alcohol abuse problems common to both Inuit and Native American peoples and the nations of Northern Europe. Greenland has a long history of prohibition and rationing. In 1782, 41 years after Danish colonization of Greenland began, the colonial administration prohibited the sale or distribution of alcohol to Greenlanders. But various loopholes soon developed, enabling Greenlandic employees of the Royal Greenland Trade Department and the Christian mission to obtain liquor, although not as much as the Danes. Those Greenlanders not in government employ could be served liquor as a reward for special jobs such as whale-flensing, water-carrying and coal-mining. Rationing was introduced in 1929, still granting greater quantities to privileged groups--Danes and employed

Greenlanders. With the Constitution of 1953, which incorporated Greenland as an integral province of the Danish realm, demands grew for an end to these discriminatory practices. On December 15, 1954, alcohol rationing in Greenland was abolished (Udvalget for Samfundsforskning i Grønland 1961: 137-138; Mellemann 1974/75: 227-232).

In 1978, following a series of studies on alcohol abuse in Greenland and a public plebiscite regarding prohibition or alcohol restrictions, the Greenland Council passed a rationing ordinance. This attempt to control alcohol abuse problems by individually limiting supply went into effect on August 1, 1979--three months after the new Home Rule government took office. After two and a half years, and without any referendum, rationing was abruptly repealed by the Home Rule Parliament, effective April 1, 1982. In lieu of limiting supply, the government then instituted a public information campaign urging voluntary moderation.

This paper describes these attempts at alcohol control, analyzes their effects on related social

problems, particularly crime, and compares them briefly with alcohol control systems in Arctic Canada. Special attention is given to the complex inter-relationships between alcohol politics, criminal politics, and the economic and labor force needs of a developing country.

#### Prohibition:

In some municipalities rationing was preceded by one month's prohibition or other short-term restrictions. On July 1, 1979, the City Council of Nuuk, Greenland's capital, abruptly shut down all sale and distribution of alcohol until August 1, 1979, when rationing was to go into effect. It was hoped that this brief prohibition would reduce absenteeism in the town's fish factory long enough to process three shiploads of codfish which had been waiting in the harbor. Here we come to one of the underlying themes of this paper--the relationship between the labor force requirements of a developing society and growing capitalism, and alcohol politics. We will return to this theme later.

Prohibition is, of course, an invitation to bootlegging, and the reef-studded waters between Nuuk

and Manitsog (Sukkertoppen), the nearest neighboring municipality, were churning that month with ~~specimens~~ traffic. (See Figure 1.) Nevertheless, overall consumption in Nuuk was drastically reduced, the crime rate fell, institutions for children emptied out, and--possibly because it was so short-term--the one month of prohibition had generally positive results (Johannsen 1981).

#### Rationing: The Point System

On August 1, 1979, the point system of alcohol rationing went into effect in all of Greenland. Every person 18 years and over, and not under criminal sanction, was entitled to 72 points or rationing coupons per month. One point equalled one beer; luxury-strength beer required 1½ points; a ¾ liter bottle of wine was 3 points, reduced from 6 to encourage a more Mediterranean drinking pattern; a ¾ liter bottle of fortified wine (sherry or port) took 12 points, as did a small bottle (35 cl) of hard spirits; and a large bottle--¾ liter--of hard liquor required 24 points, which was a full third of a month's rations.

Figure 2 (q.v.) shows what a sheet of 72 points, or rationing coupons, looked like. It is easy to see the practical weaknesses of this system. Technically, when buying alcohol, one was supposed to present the entire sheet, with one's identifying sticker--showing name, address and birthdate on top. The coupons were legally non-transferable, yet these rules were never enforced. In practice, one need only present the coupons themselves; neither the top of the sheet nor any I.D. was ever requested. This obvious design weakness was ultimately used as a reason or excuse for abolishing rationing altogether, instead of simply changing the system.

Of course, the predictable occurred: points were openly sold on the black market, becoming a kind of alternate currency for which one could buy everything from skis to soapstone carvings. An entire sheet of 72 points sold for up to 1200 kroner, then the equivalent of about \$150-200.

#### Rationing: The Pros

Nevertheless, the point system had the following positive effects:

(1) Overall consumption of alcohol was reduced markedly.

(2) There was less drinking done at home (Spiritusarbejdsgruppen n.d.: 6).

(3) Children and youth were better cared for; child neglect occurred extremely rarely, and children's homes emptied out (Ibid.).

(4) Requests for emergency cash advances from the Social Welfare Office ceased almost entirely (Ibid.).

(5) By limiting the amount of money one could spend on alcohol, rationing indirectly made extra monies available to the population for other goods--clothing, stereos, TVs, records and tapes, as well as better hunting equipment, guns, etc.

(6) As indicated on Chart 1 (q.v.), Greenland's crime rate dropped markedly, especially violent crimes--murder, attempted murder, and assault. Even though rationing did not begin until after the middle of 1979, the murder rate for that year dropped 33% (from 15 to 10) from 1978, and fell yet another 30% (from 10 to 7) in 1980. Attempted murder was 12% lower (from 25 to 22) in 1979, and assault down 27% (from 437 to 321). Sex crimes dropped 19% (from 93 to 75), and suicides and

CHART 1

Comparison of Selected Crimes 1978-1982 Before, During and After Alcohol Rationing in Greenland (population 50,000)

Source of Data: Politimesteren i Grønland 1982

Nature of Offense or Event	Pre-Rationing	Rationing Begins July/August	Rationing In Effect	Rationing In Effect	Rationing Ends April 1, 1982
	1978	1979 (% change from previous year)	1980 (% change)	1981 (% change from previous year)	1982 (% change from previous year)
All Reported Crimes	4683	4445 (down 5%)	4956 (up 11% from 1979; up 6% from 1978)	5399 (up 8%)	5725 (up 6%)
Homicide	15	10 (down 33%)	7 (down 30% from 1979; down 53% from 1978)	11 (up 57%)	11 (no change)
Attempted Homicide	25	22 (down 12%)	22 (no change from 1979; down 12% from 1978)	26 (up 27%)	34 (up 31%)
Assault	437	321 (down 27%)	358 (up 12% from 1979; down 18% from 1978)	405 (up 13%)	449 (up 11%)
Sex Crimes	93	75 (down 19%)	119 (up 59% from 1979; up 28% from 1978)	112 (down 6%)	131 (up 17%)
Theft	2525	2511 (down .6%)	2657 (up 6% from 1979; up 5% from 1978)	2745 (up 3%)	2953 (up 8%)
Suicide & Attempted Suicide	42	37 (down 12%)	45 (up 27% from 1979; up 7% from 1978)	43 (down 4%)	57 (up 33%)

(Continued on next page)

CHART 1 (continued)

Comparison of Selected Crimes 1978-1982 Before, During and After Alcohol Rationing in Greenland (population 50,000)

Source of Data: Politimesteren i Grønland 1982

Nature of Offense or Event	Pre-Rationing	Rationing Begins July/August	Rationing In Effect	Rationing In Effect	Rationing Ends April 1, 1982
	1978	1979 (% change from previous year)	1980 (% change)	1981 (% change from previous year)	1982 (% change from previous year)
Detained Drunks	1538	1139 (down 26%)	1378 (up 21% from 1979; down 10% from 1978)	1698 (up 23%)	2376 (up 40% from 1981; up 108% from 1979)
Narcotics Offenses	17	53 (up 212%)	60 (up 13% from 1979; up 253% from 1978)	166 (up 177%)	134 (down 19%)
Drunk Driving (DWI)	223	186 (down 17%)	240 (up 29% from 1979; up 8% from 1978)	238 (down .8%)	255 (up 7%)
Traffic Accidents	84	72 (down 14%)	102 (up 42% from 1979; up 22% from 1978)	145 (up 42%)	117 (down 19%)
Vandalism	727	706 (down 3%)	754 (up 7% from 1979; up 4% from 1978)	828 (up 10%)	982 (up 19%)

attempted suicide fell 12% (from 42 to 37). The number of detained drunks was reduced by 26% (from 1538 to 1139), driving-while-intoxicated fell 17% (from 223 to 186), and traffic accidents, 14% (from 84 to 72).

In addition, a study conducted by Nuuk's Police Station Chief revealed that the number of domestic quarrels to which police were called in that municipality dropped 58% (from 253 to 105), if one compared the five-month period of January 1 through May 31, 1978 with the same period in 1980 (Rasmussen 1982a). For all of Greenland in that period, however, the decline was only 19.4% (Johannsen 1981).

(7) According to Greenland's Department of Corrections and Probation, during the entire period of alcohol rationing, fewer problems were experienced with clients under supervision/probation, and the recidivism rate dropped (Kriminalforsorgen i Grønland 1981: 2). In addition, since offenders who were sentenced to supervision with treatment for alcohol abuse, and offenders in Greenland's open correctional institutions, were simply denied their points/rationing coupons, the Department of Corrections

and Probation could avoid the forced administration of Antabus (Disulfuram), which they otherwise use. Thus alcohol rationing was a very useful tool in corrections in Greenland.

#### Rationing: The Cons

Unfortunately, after 1979's almost across-the-board fall in the crime rate, 1980 and 1981 saw it slowly inch its way up again.

Although the violent crime rate still reflected some restraint, the pattern of crime changed. More thefts, burglary and even occasional muggings occurred for the purpose of obtaining: points (rationing coupons), money to buy points (and alcohol), items to fence for points, and alcohol itself.

An active black market for points/rationing coupons developed. Outside the town's main super-market trade took place openly. There was even a sign, hand-printed in Greenlandic, with the word "pointit" and an arrow, directing the non-cognoscenti to the area where one could buy and sell coupons. As mentioned, a whole sheet of 72 coupons could cost 1200 kroner, or \$150-200. Others dealt privately, some members of the Blue Cross Temperance Society reputedly selling

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their points to regular customers every month. One policeman, who is Deputy Mayor of a large town, even condoned the practice some students had of selling their points, thus "earning" an extra monthly stipend for healthier hobbies and entertainment, such as records, tapes, stereo or photographic equipment. As this conservative politician pointed out, this extra income enjoyed by some students and aged did not cost the government anything--at least not directly.

Although prosecution for this type of individual-level sale of points was rare to nonexistent, black market activities had the effect of engaging a large segment of the population in criminal acts. And a few major cases of wholesale theft and re-sale of rationing sheets from a municipality, and outright printed forgeries of rationing sheets, were prosecuted in the courts.

In addition, heavy users who simply could not do without their accustomed quantities of alcohol, were forced to buy points. As the Department of Corrections and Probation stated, "the group which previously only used a considerable part of its earnings for alcohol must now use the rest to buy points. Therefore, there are relatively more persons

[i.e., among their clients] who wind up in social need because of the point system alone" (Kriminalforsorgen i Grønland 1981: 3). These negative consequences tended to strike the poorest in the population.

Predictably, alcohol smuggling increased, as did home-brewing and distilling, both of which were also illegal. One taxi company illegally sold hard spirits at night for at least 300 Danish kroner (then about \$50) per bottle. Theft of lighter fluid, glue, paint thinner, etc., occurred with significant frequency and in one case the accused had drunk hair-waving lotion.

Narcotics cases, almost exclusively involving hash, rose spectacularly from a mere 17 in 1978 to 53 in 1979 (the year rationing was introduced); then 60 in 1980, and in 1981 the figure rose to a whopping 166--almost triple the number of the year before. This rise was possibly due to greater police enforcement efforts, but also possibly due to "some unscrupulous elements [who had] attempted to take advantage of the current situation of deprivation among young people to build up a market in Greenland" (Johannsen 1983: 3). In some places, it was said, one could buy a gram of hash for 6 points (Ibid.).

Finally, the rationing system was also criticized as being expensive to administer (Spiritusarbejdsgruppen n.d.: 6-7).

Repeal: KeasQns

All these negative effects--especially the new patterns of criminality, black market, and the dangers of sickness from home brewing--were cited by many officials as arguments for repealing alcohol rationing.

A commission set up by the Home Rule Government to research the issue cited most of these pros and cons, also pointing out that rationing places individuals in a non-adult situation, thus echoing the complaint that rationing was an unnatural control, and that the people must learn to drink with moderation, not through external controls, but through a public education campaign (Spiritusarbejdsgruppen n.d.: 10-11).

Yet the commission admitted that, besides these many rationalizations, the real reason was the basic unpopularity of the system:

With a review and analysis of the statements and materials presented regarding the rationing system, the work group [commission] must point out,

that the current system cannot be said to be one-sidedly bad and

that the information presented on the drinking pattern of the population apparently shows a desirable change in the direction of greater consumption of alcohol-weak "home rule brew" [a light beer of only 1.75% alcohol] and of table wine, to the decline of strong beer, fortified wine and hard spirits.

That the work group [commission] despite this and despite the lack of concrete evidence/figures on the effects of the point system suggests anyway that the point system be abolished is due to the fact that in the population, in the municipalities, in the rest of the public administration, in some unions and organizations there seems to be a widespread desire that the point system be repealed.

(Spiritusarbejdsgruppen  
n.d.: 13-14; translation  
and emphases mine)

So, more than anything else, alcohol rationing was admittedly an unpopular system. And one might also point out that the government and legislature were coming up for re-election the next year. Only two members of the then 21-member legislature (20 were present) abstained from supporting the repeal of alcohol rationing during the vote taken on March 27, 1982. One of these was a member of Blue Cross, the

Temperance Society, and the other was a policeman who felt that the April 1 date for returning to open sale of alcohol was entirely too early, and that no preparations had been made to ease the population gradually back to unlimited access to alcohol, nor to handle possible negative results of that (Illiams 1982: 22; Joelsen et al., 1982).

In addition, more than one individual in a position to know has suggested that alcohol rationing was repealed because it constituted a major inconvenience for those members of the government who are themselves accustomed to consuming large quantities of alcohol.

Finally, if one is truly seeking a possible hidden agenda behind the repeal of alcohol rationing, then one must look at the economic needs of a developing country. On February 23, 1983, just five weeks before the legislature's vote to repeal alcohol rationing, Greenland voted in a public plebiscite to withdraw from the European Economic Community (or Common Market). The pullout date was then projected as January 1984, a deadline which has not been met. In 1982, Greenland received 37.6 million Danish kroner (\$4.5 million) in assistance from European Community

(Common Market) funds, amounting to 3.9% of the Home Rule Authorities' total revenues. These figures for 1983 are projected to be 66.2 million Danish kroner (\$7.4 million), or 6% of revenues. Withdrawal from the European Community will mean loss of these grants, unless another relationship can be established with the European Community.

It can therefore not be deemed unwelcome that the enormous rise in the sale of alcohol following the abolition of rationing brought into Greenland's treasury a windfall of 107.6 million Danish kroner--\$12.9 million, and 24 million kroner or \$3 million more than expected--thus changing an anticipated deficit to a surplus.

Although this extra income was not the conscious reason that rationing was repealed, Greenland does, nevertheless, have a history of rising proceeds of alcohol taxes contributing to its treasury. In 1960, alcohol taxes contributed only 2.3 million kroner to the treasury, constituting 27% of the total proceeds from duties. In 1965, alcohol taxes gave 11 million kroner, or 41% of the total proceeds from duties; in 1966, 12.6 million kroner, or 40%; in 1967, 14.4 million kroner or 42%; in 1968, 14.6 million kroner or 36%; in 1969, 16.9 million kroner

or 38%; and in 1970, 22.5 million kroner or 47.9% of the total proceeds from duties, which was then 47 million kroner (Spølling 1974, Bilag III:3-5).

For whatever mixed bag of reasons, the Greenland Parliament voted on March 27, 1982 to abolish alcohol rationing in Greenland, effective April 1, 1982. With only four days' warning and no alternate program of control, the legislature made access to alcohol unlimited for those 16 and over. Although the work group/commission on alcohol rationing had recommended doubling or tripling taxes on strong beer, fortified wines and hard spirits to discourage consumption, the legislature raised taxes only 25% (to 8.5%) on strong beer and hard spirits. In addition, they legalized home brewing while maintaining prohibition against home distilling. This time home brewing was described on the floor of the legislature as a harmless Greenlandic tradition, usually consumed together with food and rarely exceeding the strength of ordinary pilsner.

It is difficult to determine exactly why the legislature and government made these decisions, and why they ignored the recommendations of the alcohol commission regarding taxation. Perhaps such steep increases would have been regarded as punitive and been highly unpopular. And, as mentioned, everyone

was coming up for election just one year down the road.

#### Repeal: Results

As a result of the repeal of alcohol rationing, consumption skyrocketed. Figures from KGB--The Royal Greenland Trading Company (Den Kongelige Gronlandske Handel)--show that importation rose 60%, and, more or less, what gets imported gets used.

Demand for beer in Greenland was so great that in the summer of 1982, Denmark's two main breweries--Carlsberg and Tuborg--had to work three shifts around the clock just to meet Greenland's demand--the demand of a total adult population of only 33,735 people.

In the months of April, May and June 1981, 9.3 million drinks were imported. For the same months in 1982, the figure was a little over 15 million, reflecting a rise of a good 60%.

Importation in June 1982 was especially steep: 6.7 million drinks, or 7 drinks per adult per day. (And remember that these averaged figures include adults who do not drink or who drink very little, which means that some people were drinking even more!)

In rounded figures, these 6.7 million drinks were composed of:

4.5 million pilsners (ordinary beers),  
56,000 luxury beers,  
barely 100,000 light pilsners (1.75% alcohol),  
34,000 bottles of hard spirits,  
131,000 bottles of table wine,  
plus 6,000 bottles of fortified wine (sherry and port).

From these figures, it is easy to see that the most popular drink is beer.

In the entire 15-month period from April 1981 through June 1982, 54.4 million drinks were imported-- a consumption rate of 3.8 drinks per adult per day-- of which 2.3 drinks took the form of ordinary beer. (Again, these figures include adults who abstain or drink lightly, which means that some individuals were drinking even more.)

Heavy beer drinking, then, marks the pattern of alcohol use in Greenland. In Greenland and Denmark, people drink beer much the way Americans drink Coca-cola. Beer is simply a beverage, but one that also happens to be alcoholic.

The alcohol consumption statistics for the

entire year 1982 were even more staggering: Consumption of beer rose 71%, "luxury beer" (i.e., stronger beers such as Gold Export Tuborg and Carlsberg Elephant) 313%, and hard liquor 85.5% over 1981. In a land with an adult population of 33,735 (the total population is about 50,000), there were imported (and consumed) 37.1 million ordinary beers (pilsner), 476,000 luxury beers, 244,000 whole bottles of hard liquor, 1.2 million bottles of wine, and--if one is also interested in nicotine addiction--141 million cigarettes and 2 million cigars and small cigars. That means that in 1982, each adult citizen consumed, on the average: 46 cartons of beer (and there are 24 beers to a carton), 14 luxury beers, 7 1/2 bottles of hard liquor, 34 bottles of wine, 1 1/2 bottles of fortified wine (e.g., port or sherry), 3792 cigarettes, and 58 cigars.

Considering that 16% of the consumption occurred in restaurants, the above cost the average consumer 17,100 Danish kroner (about \$2050)! If the above had all been purchased in the stores alone, then it would have cost the average consumer 13,600 kroner (about \$1630)!

In all, 461 million kroner (about \$55.21

million!) were spent in Greenland in 1982 for beer, wine and hard spirits. This brought in 107.6 million kroner (\$12.9 million) in liquor taxes, plus 1.6 million kroner (\$191,617) in tax on light beer (with 1.75% alcohol) into Greenland's Treasury (some 24 million kroner or \$3 million more than expected). Add to the aforementioned amount for alcohol duties, another 84.7 million kroner (about \$10.14 million) in tobacco taxes, and you have one-fifth of the Greenlandic Treasury's total income for 1982! That amount is some 41 million kroner (about \$4.9 million) more than estimated in the budget, and since tobacco consumption fell about 4% since 1981, this "unexpected" windfall is due to the explosion in alcohol consumption since the end of rationing on April 1, 1982. (See Figure 3.)

Of course, this binge is not without its human and social costs. In the capital of Nuuk, the public children's homes are overflowing, and the Social Welfare Office has had to place ads in the newspapers appealing for private homes willing to engage in child care. Nuuk's Police Station Chief estimated that the number of domestic quarrels that the police get called out to has increased by 100% since the end of alcohol

rationing (Rasmussen 1983). According to the police statistics for 1982 (Politimesteren in Grønland 1983), in Nuuk (pop. 10,000) alone, 1982 incidences of vandalism increased from 191 to 255 (up 33.5%), sex crimes tripled from 12 to 36, and the number of drunks held in detention increased from 502 to 703 (up 40%). Most interestingly, the number of narcotics violations more than quadrupled, from 18 to 82. Since alcohol seems to be the drug of choice in Greenland, one would expect other drug use to drop when alcohol rationing ended. (In fact, this was even used as a rationalization for ending rationing.) Since the "hash hound" (trained sniffing dog) only began to be used in the last month or two of 1982, the statistics cannot reflect the dog alone. According to Nuuk Station Chief Jens Rasmussen (1983), the figures reflect a police decision to crack down on drugs in Greenland. These drugs are mostly hash and related (cannabis) substances. Fortunately, there is no heroin problem in Greenland.

Several local police station leaders have gathered statistics for their municipalities comparing crime figures during and after rationing. In Sisimiut (Holstenborg), Greenland's second largest

town (population about 4,000), the 2 1/2 month period between April 1 and June 15 were compared for 1981 and 1982 (Chart 2):

	<u>1981</u>	<u>1982</u>	<u>Percent Increase</u>
Break & entries and common theft	17	70	+311%
Domestic quarrels and fights	88	266	+156%
Assault	9	20	+122%
Detention of drunks	65	127	+ 49%
Serious vandalism	18	36	+100%

(Fisher 1982a)

Moreover, neither alcohol consumption levels nor crime statistics have shown any tendency to return to a more reasonable pre-repeal level.

A comparison of the first with the fourth month of post-repeal crime statistics in Nuuk showed the following (Chart 3):

	<u>April 1982</u>	<u>July 1982</u>
Homicide or Attempted Homicide	1	2
Assault	9	14
Theft & Break-in	57	91
Vandalism	30	31
Domestic Quarrels & Disturbing the Peace	157	142

Arrested/Detainees	118	114
Released without Charge (domestic quarrels, drunks)	67	69
Charged for Offense, Report Made	51	48

(Rasmussen 1982b)

When one looks at Greenland as a whole (see Chart 1), theft in 1982 increased 7.6% over 1981 (from 2745 to 2953 cases), vandalism 18.6% (from 828 to 982), and although homicide remained exactly the same (11), attempted homicide rose 30.8% (from 26 to 34), and assault rose 10.86% (from 405 to 449).

With a population of 50,000, Greenland probably holds a world record for suicide or attempted suicide. In 1982, the figure was 57 (over 40 succeeded in taking their own lives, according to the Station Chief), a 32.6% increase over 1981's 43, and a 54.05% increase over 1979's 37 suicides or attempted suicides. This means that in Greenland, the annual suicide rate is over 80 per 100,000. Compare with San Francisco and Denmark's 35-40 per 100,000.

It is also said that Greenland holds something of a world record for broken jawbones, which in some areas (e.g., Paamiut/Frederikshab) doubled and quadrupled in 1982, thanks to assaults committed under the influence

of alcohol. Thus beverage alcohol--even more than Coca Cola--can be dangerous to your teeth.

Hospitals and emergency rooms across Greenland have also felt the brunt of the repeal of rationing. In the first three months of 1982--while Greenland was still under rationing--only 60 people visited the emergency room in Ilulissat (Jakobshavn)--a town of about 2500 people. But after only two months and 10 days following rationing's repeal, 140 had to go to the emergency room there--triple the rate during rationing (Illinmi 1982: 22).

In Narsaq, a municipality of 2000 people, the number of injured persons per month has increased by 58% since the repeal of rationing. The number of injuries per month from assaults and muggings rose 126%--i.e., more than double that during rationing. Eighty-nine percent of the perpetrators of assault were male, and of these 96% were under the influence of alcohol when the assault was committed (Ibid.: 21).

In addition to injuries, doctors in Sisimiut (Holsteinsborg) recorded a 90% rise in venereal disease in the wake of rationing's repeal. On June 3, 1982, Sisimiut's head physician wrote to the town council. "It must be up to the politicians whether

action ought to be taken, but we in the health sector will support every system which limits alcohol abuse" (Sørensen 1982). In the summer of 1982, Sisimiut's Police Station Chief, Bjarne Fisher, and Department of Corrections and Probation officer, Mona Rosing Olsen, said in an interview that they would at that point even support complete prohibition in Greenland (Fisher 1982b; Olsen 1982).

The alcohol crisis has also had other side effects. Six murders occurred in a two-week period at the end of May and beginning of June 1982. Three of these murders were committed by an escapee from Nuuk's open correctional institution. These tragic events, most committed under intoxication, spurred a demonstration for "a peaceful and more harmonious society."

Because of the steep rise in crime as a result of rationing's repeal, tolerance for Greenland's extremely lenient criminal code and open correctional institutions began to wane. As a result of demands for greater security, the same Greenland legislature

that repealed rationing in March, approved construction in October 1982 of a closed wing in Nuuk's open correctional institution. Remarked one Greenlandic member of Parliament, "I didn't want to vote for it, but the people expected me to" (Steenholdt 1982). Although it is not the intention that this closed wing be used to house long-term inmates, it may well represent a developing nation's first step toward the birth of a prison. Some ordinary citizens are blaming the extremely lenient Greenland Criminal Code instead of the critical intervening variable, alcohol. Thus one can argue that the end of alcohol rationing spelled the beginning of the end of Greenland's extremely liberal criminal code and sanction system, which kept even murderers and rapists employed and integrated in the society (cf. Schechter 1982).

On the other hand, ironically, the alcohol crisis has made the inmates of the open correctional institutions extremely popular among one segment of the population--employers. The repeal of rationing has made Greenland's labor force more unstable, but the inmates in correctional institutions are seen (and sometimes preferred) as a stable labor force that comes on time, comes every day, and shows

up sober. It can be argued that if there weren't a serious alcohol problem in Greenland, it might be difficult to employ the inmates, who earn regular wages. But if there weren't a serious alcohol problem in Greenland, there would not be so many inmates to employ!

In terms of the economic life of this developing country, alcohol also takes its toll. Labor power is so unstable at Godthåb Fish Industry that it loses about two to three million kroner (about \$250,000-300,000) per year and often has to dump tons of codfish it purchased but could not get processed and frozen before spoilage occurred. In desperation it has even been suggested that confirmations, which usually turn into big drinking bashes, be held either earlier in the spring or later in the fall so as to avoid the busy summer fishing season. (See Figure

In addition, as monies pour into buying alcohol, other businesses suffer. Sale of clothing, radios and photography equipment dropped 25%, and businesses threatened to lay off workers. This is the exact opposite of what occurred during rationing, when businesses picked up by 25-50%.

Alternatives to Rationing: Public Information Campaign

In the spring of 1982, the Home Rule Government began distributing public information materials urging voluntary moderation in alcohol use. These materials consist of posters, buttons, stickers, newspaper ads, postcards, a TV videodrama, and a magazine serving as a forum for opinions on the "alcohol debate."

The earliest posters used scare and shame tactics. The poster in Figure 4 is a very realistically staged photograph showing a violent domestic quarrel, with an empty beer can in the background. The caption reads (in both Greenlandic and Danish): "Goodbye to points! But what about the women and children?" The poster in Figure 5 reads: "A confirmation: Does it have to end this way?" and shows the newly confirmed children, clad in their national costumes, standing glumly in the foreground, while in the background, the party the adults have made for them has turned into a drunken brawl. And the poster in Figure 6 shows a man passed out in the street, with the caption "Not me on payday!"

At the same time, a series of eight stickers

and identical buttons (much like campaign buttons) were distributed, also free of charge. Figure 7 shows these stickers with English translations. Although the stickers and buttons were intended to be serious, they were often regarded humorously, particularly the "I have a hangover" button, and the "Today I will be sober" button. The latter was sometimes worn to the bars with "not" added to the slogan.

Later posters and postcards took a much more subtle approach--so subtle that, in the case of the postcards, the alcohol control message might be lost. The new slogan is "Let us show the world that we can govern (meaning also rule or control) ourselves"--an indirect reference to Home Rule, a source of national pride. The postcards and posters in Figures 8 through 12 emphasize not the degradation of alcohol abuse, but pride in the beauty of the land and the strength of the traditional Greenlandic culture: the successful sealhunter in kayak, sealskins stretched out to dry by his industrious wife, a woman sewing sealskin boots, fishing boats in the moonlight, a shepherd on horseback, etc. New slogans urge: "Do not drink yourself from your knowledge" or "Do

not drink yourself from your freedom."

Pretty though these materials may be, their effectiveness--if measured by alcohol consumption and crime statistics--appears to be null.

Supply-Side Prevention: Rationing and Restrictions in Greenland Today

In Greenland, only two municipalities and a monopoly-run mining town have maintained alcohol rationing. Both municipalities are extremely isolated communities, whose inhabitants are dependent upon hunting for their livelihood, and hunting and drinking do not mix well. In Avanersuaq/Thule, in far Northwest Greenland, every person over 20 years old is allowed 50 points per month. In Illoqqortoormiut/Scoresbyaund, in far Northeast Greenland, three points are issued daily to each adult from Monday through Thursday, and six on Friday, three of which can only be used on Saturday. That totals 72 points per month, but the most one can save up is two weeks' worth of coupons, or 36 points. In both Avanersuaq and Illoqqortoormiut, a beer is worth 1 point, a bottle of wine, 5, and a half bottle of hard spirits, 10.

Both these municipalities had previously tried distributing points once a week, but too many people got drunk at the same time and could not work or hunt. And in both municipalities, the decision to ration and the form rationing takes are made by the town council.

Although the town councils of the local municipalities have the right to limit the sale and serving of liquor, only the above two of Greenland's 18 municipalities have continued rationing, and Avanersuaq/Thule is again putting the question before its citizens. Ten other municipalities have restricted the times during which liquor may be sold or served beyond that required by the law passed by the Greenland Parliament.

Nevertheless, the municipalities' local self-determination is limited, especially in granting or denying liquor licenses. In a recent case, the town council of Qeqertarsuaq/Godhavn twice refused to renew the liquor license of the town's only bar, located close to the town school. Despite vandalism in the school, assaults, and the accidental deaths of three people who had left the bar drunk (one froze to death and two fell into the harbor), the Green-

landic Parliament narrowly overrode the wishes of the municipality and renewed the liquor license for another eight years. The town council angrily reacted by prohibiting all serving of liquor on Friday, Saturday and Sunday, and restricting service to Monday through Thursday, between 6 p.m. and midnight. Said the town's mayor, Lars Pele Berthelsen: "Why sacrifice so much money for the alcohol campaign and then at the same time impede us to this degree, as soon as we try to stop the drinking?" (Sermitsiak 1983: 5; translation mine).

In the mining town of Marmorilik, it is the mining company, Greenex, that decides how much one may drink. Two or three months after the end of alcohol rationing in April 1982, Greenex closed down the town bar permanently and instituted its own rationing system. Abandoning the point-coupon system, Greenex issued I.D. cards which are to be punched whenever an individual purchases alcohol. The sample I.D. card shown in Figure 13 makes illegal transference much more difficult than the coupon system.

Since the population consists of about 330 people, of whom some 300 are male manual laborers, the company decided to permit 24 points per week (96

points per month) plus unlimited purchase of table wine. These privileges, however, can be sharply reduced or completely curtailed if the individual fails to show up for work. Five absences or a single fight can be cause for firing.

Since the pay is good (about \$1700 per month minimum plus free room and board), the jobs desirable, and the labor force carefully screened before hiring, Greenex's system appears to be effective. Greenex Chief Consultant Jonas Nielsen, who is also the town constable, feels that a modified version of Greenex's I.D. card system, with a reduced ration of perhaps 60 points, would work in the rest of Greenland. Interestingly, one of the subgroups outvoted in the alcohol commission had suggested a similar alternative--rationing books which would be stamped--but this suggestion was never accepted (Spirituarbejdsgruppen n.d.: 11-12). Recalling the Faroese system of denying liquor purchases to those who owed rent, taxes, etc., Nielsen further suggested that people only be issued quarterly alcohol I.D. cards if they were not behind on such payments (Nielsen 1982, 1983). Greenland's Minister of Social Affairs, Agnethe Davidsen, who has recently

publicly supported rationing, albeit not the coupon system, is also interested in the Faroese system.

#### Supply-Side Prevention: Alcohol Control in Arctic Canada

The Greenlandic pattern of alcohol rationing initiated by an island-wide referendum and legislated and repealed (this time without popular plebiscite) by the Greenland Parliament, reflects the profound centralizing tendencies of both the Greenlandic and Danish governments. This centralism can be seen in many other government areas, from land-and-city planning to the police and criminal justice system (cf. Schechter 1983).

By contrast, the system of alcohol control in Arctic Canada reflects that nation's federal tradition. The Northwest Territories' Liquor Ordinance provides for "Local Option," which is exercised to a far greater extent than the Greenlandic municipal councils' power to limit sale and serving of alcohol.

Local communities can choose between no restrictions (or "wet"), a prohibition system (or "dry"), and a community control system ("semi-dry"). Control systems vary, but often limit the amount or kinds of alcohol allowed into the community. In addition, locally chosen alcohol education committees may "indecree" individuals who abuse alcohol by limiting or halting their ordering privileges. That is done by placing their names on lists of indecreeed persons, and by refusing to sign liquor order forms for them. Figure 14 shows a sample form for ordering liquor from the government-run liquor store in Probiasher Bay to the settlement of Broughton Island, which has a community control system. The form bears two signatures and the stamp of the Broughton Island Alcohol Education Committee. Indecreeed persons may appeal the Alcohol Education Committee's decision to the local Justice of the Peace, who makes the final decision (Department of Social Services, Baffin Region n.d.: 1-3).

Most communities in the Northwest Territories do not have liquor stores. Fort Smith, Fort Simpson, Pine Point, Tungsten and Cambridge Bay have privately

owned stores or "agencies" which are open to the public and under government control. Inuvik, Hay River and Norman Wells have government-run stores which are open to the public. And Frobisher Bay and Yellowknife each have a government-run warehouse which is closed to the public but used for sending orders elsewhere in the Northwest Territories (Jones 1983; Northwest Territories Liquor Control System and Liquor Licensing Board 1982: 16-27).

Communities which do not have open liquor stores and which are not under prohibition can order alcohol from the above-mentioned stores. This procedure is slow and cumbersome, requiring forms, stamps and signatures, and thus reducing impulse buying and drinking, and probably also reducing overall consumption. (See Figure 14.) It is also very expensive, since everything is sent via air freight. For example, it costs CAN \$1.80 per kilo, with a minimum of CAN \$19 for up to 11 kilos, to fly liquor from Frobisher Bay to Cape Dorset, its nearest neighbor. It costs CAN \$3.87 per kilo, with a minimum of CAN \$19 for 5 kilos, to Pond Inlet, Frobisher's farthest neighbor. And from Frobisher to Hall Beach,

Nanisivik and Resolute Bay, it costs about CAN \$2.31 per kilo, with a minimum charge of CAN \$27 for up to 11 kilos (Ibid.).

As a result of a petition (no plebiscite was held), the liquor store in Frobisher Bay was closed to public sale and its own residents on April 30, 1976, and is now used exclusively as a warehouse outlet for filling orders outside of Frobisher Bay. Conversations with a variety of community residents, including inmates as well as staff at the Baffin Correctional Center, journalists, customs officials, government employees, the Royal Canadian Mounted Police, and the agent who runs the Frobisher Bay Liquor-Store-turned-warehouse, all indicate satisfaction and relief that the store was closed to local purchasing. Among the positive effects cited were: less drinking in the home, fewer domestic quarrels and disruptions, less impulse spending, more peaceful streets, less crime, and a consequent reduction in the size of the R.C.M.P. force in Frobisher Bay. Not one person interviewed expressed a desire for reopening the store. Bar hours in Frobisher Bay remain the same: 3 to 7 p.m., and 8 to 10:30 or 11 p.m.

Residents of Proviser Bay can order liquor without restriction from stores elsewhere in the Northwest Territories. Air freight from Yellowknife to Proviser Bay costs CAN \$3.37 per kilo for shipments under 45 kilos, CAN \$3.01 per kilo for 45 to 100 kilos, CAN \$2.89 per kilo for over 200 kilos, and CAN \$2.72 per kilo for 500 to 1000 kilos. Liquor brought in from outside the Northwest Territories requires an import permit (see Figure 15) and the following fees:

spirits: CAN \$1.00 per 40 oz. bottle  
          CAN \$2.00 per 25 oz. bottle  
wine:      CAN \$2.00 per 3 liters or  
          CAN \$2.00 per 4 26 oz. bottles  
beer:      CAN \$2.00 per case of 12 bottles

(Jones 1963)

Added to freight charges, these fees make getting drunk an expensive proposition. As might be expected, however, some people circumvent these duties by having a bottle or two smuggled in with their weekly or monthly shipments of groceries from Montreal or Toronto.

The Northwest Territories' Liquor Ordinance

gives the ordinary citizen far more power to influence liquor control than the average citizen has in Greenland. To hold a plebiscite, at least 20 eligible voters of a community must petition the Minister of Justice and Public Services in Yellowknife. The petition or letter must indicate which of the three systems (i.e., no restrictions, prohibition, or a control system) the people wish to vote upon, and the geographical radius which the system would affect. If the community will be voting on a control system, the petition must also identify the group, such as a local Alcohol Education Committee, which will have the authority, once elected, to approve, deny, or alter the quantities or kinds of alcohol to be allowed into the community.

If at least 60% of the votes are in favor of the new regulations proposed in the plebiscite, changes will be made accordingly. Without 60% approval, the situation will remain the same as before the plebiscite was held. Depending upon the content of the questions to be decided, plebiscites can usually be held once every two or three years (Dept. of Social Services, Baffin Region n.d.: B-10;

cf. also Liquor Ordinance 1970: 1032-1034; Council of the Northwest Territories 1982: 17-20; Summary of Proposed New Liquor Ordinance n.d.: 3).

In real terms, local option means that via plebiscite, 60% of the voters can (1) prevent a liquor store from opening in a community that has no liquor store; (2) prevent the granting of a liquor license in a community that has no such licenses; (3) cause the closing of a liquor store; (4) cause the revocation of liquor licenses. The law, however, does also make some provision to protect preexisting liquor establishments (Liquor Ordinance 1970: 1032-1034; Council of the Northwest Territories 1982: 17-20; Summary of Proposed New Liquor Ordinance n.d.: 3).

Many communities in the Northwest Territories have taken advantage of local option, holding frequent plebiscites and experimenting with different rules in search of those that best suit local conditions. The result is a checkerboard of regulations varying across the Northwest Territories, and a flexibility and decentralization of control unknown in Greenland.

At present, the following communities in the Northwest Territories are under prohibition:

- (1) Rae-Edzo (since Aug. 20, 1976; the second plebiscite on discontinuing prohibition was held on Oct. 29, 1979 and defeated)
- (2) Lac La Marte (since Mar. 18, 1977)
- (3) Pangnirtung (since Sept. 1, 1977; the second plebiscite proposing local controls was held on May 15, 1979 and defeated)
- (4) Fort Franklin (since Oct. 3, 1977)
- (5) Gjoa Haven (since Feb. 15, 1978)
- (6) Rae Lakes (since May 15, 1978)
- (7) Snowdrift (since July 1, 1978)
- (8) Sanikiluaq, including all of the Belcher Islands (since July 1, 1978)
- (9) Fort Good Hope (since Nov. 17, 1978)
- (10) Lake Harbour (since Apr. 15, 1979)
- (11) Eskimo Point (since July 16, 1979)
- (12) Pelly Bay (since Sept. 12, 1979)
- (13) Coral Harbour (since May 1, 1980)
- (14) Nahanni Butte (since Nov. 30, 1980)

(Liquor Control System and Liquor Licensing Board n.d.)

The following communities have liquor stores or outlets and no restrictions on purchasing:

- (1) Inuvik
- (2) Fort Smith
- (3) May River
- (4) Pine Point
- (5) Tunstun

(Jones 1983; Liquor Control System and Liquor Licensing Board 1982: 18-27)

The following communities have liquor stores or outlets with restrictions:

- (1) Fort Simpson (store hours reduced and weekly rations in effect since Dec. 15, 1980)
- (2) Norman wells (daily rations in effect since July 14, 1980)
- (3) Cambridge Bay (Beer sales from Hudson Bay Store were temporarily suspended from Oct. 3, 1980 to Apr. 2, 1981)

(Liquor Control System and Liquor Licensing Board r.d.: Jones 1983)

The following communities have no restrictions, and citizens may order what they like from the liquor warehouses:

- (1) Grise Fjord
- (2) Resolute Bay

- (3) Cape Dorset
- (4) Nanisivik
- (5) Fort Resolution (Prohibition had been in effect from Sept. 26, 1978 to May 3, 1980, and rationing before that)
- (6) Fort Norman (Prohibition had been in effect from Feb. 1, 1978 to Nov. 6, 1980)
- (7) Frobisher Bay (Liquor Store closed Apr. 30, 1976 as a result of petition)
- (8) Rankin Inlet (Beer Store closed Nov. 23, 1978)

(Ibid.)

The following communities have some form of restriction or community control, often under the authority of an Alcohol Education Committee or similar body:

- (1) Pond Inlet (had been under rationing from July 1, 1975 to Feb. 22, 1977)
- (2) Hall Beach (had been under prohibition from June 9, 1977 to Apr. 19, 1982)
- (3) Igloodik (since Mar. 13, 1978)
- (4) Repulse Bay (since Feb. 1, 1979)
- (5) Arctic Bay (since May 23, 1980)

(6) Fort Liard (weekly rationing, as of Oct. 1, 1980)

(7) Clyde River (since Mar. 29, 1982)

(8) Broughton Island (since Mar. 29, 1983)

(Ibid.)

This rundown shows 18 different communities with at least five different types of alcohol regulations running the full spectrum from prohibition to no restriction. It offers exciting possibilities for future research regarding the effects of these varying ordinances. How, for example, do plebiscites introducing prohibition, rationing, or other restrictions influence consumption? The closing of the beer outlet in Rankin Inlet on November 21, 1978, together with strikes of beer suppliers, caused a decrease in beer sales in the 1978-79 fiscal year (Liquor Control System and Liquor Licensing Board 1979). Charts 4 and 5 show fluctuations in liquor sales in terms of gallons (liters) and Canadian dollars. More research is needed to determine the relationship, if any, between these figures and fluctuations in alcohol restrictions. Perhaps more importantly, we need to compare indices of social problems, as these communi-

Northwest Territories Liquor Control System

	<u>Gallons of Sales</u>				<u>% Change</u>	<u>Total</u>	<u>Gallons of Absolute Alcohol Sold</u>	<u>% Change</u>
	<u>Spirits</u>	<u>Wine</u>	<u>Beer</u>	<u>Beer</u>				
1974-75	96,732	57,700	652,161			84,164		
1975-76	99,488	48,000	738,148			87,916	-3.20	
1976-77	109,743	48,452	738,236			90,395	-2.20	
1977-78	106,990	56,905	742,186		306,081	86,193	+6.42	
1978-79	107,641	56,093	671,797	-7.78	835,531			
1979-80	104,319	56,498	661,070	-1.63	821,887			
1980-81	111,304	54,942	712,539	+6.92	878,785			
1981-82	548,114	257,582	3,422,427	+5.8	4,228,123	418,701	+5.9	

Liter Sales

1981-82	548,114	257,582	3,422,427	+5.8	4,228,123	418,701	+5.9
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(Sources: 25th, 26th, 27th and 28th Annual Reports, Northwest Territories Liquor Control System and Liquor Licensing Board.)

CHART 5

**LIQUOR CONTROL SYSTEM  
SALES HIGHLIGHTS**

<u>Year Ending March 31</u>	<u>Sales</u>	<u>Gross Profit</u>	<u>Gross Profit % of Sales</u>	<u>% Increase in Sales</u>
1969	1,981,847	2,060,748	51.8	15.0
1970	4,781,210	2,314,611	48.8	20.1
1971	5,589,192	2,671,637	47.6	16.8
1972	6,509,584	3,107,027	47.7	16.4
1973	7,496,174	3,585,040	47.7	15.2
1974	8,274,012	4,252,030	48.8	16.1
1975	9,574,266	4,864,861	50.8	9.9
1976	10,681,708	5,081,679	48.1	14.7
1977	11,280,747	5,181,094	46.0	2.7
1978	12,150,944	5,241,284	43.1	7.7
1979	11,781,114	5,942,821	46.9	5.2
1980	13,174,588	6,674,938	46.4	4.7
1981	15,184,548	7,289,791	48.0	11.5
1982	17,750,366	8,154,080	45.9	16.9

Figures in Canadian Dollars

Source: 28th Annual Report, Northwest Territories Liquor Control System and Liquor Licensing Board, 1982.

ties move from one form of alcohol regulation to another. Fluctuations in the crime rate, such as that documented for Greenland in Charts 1, 2 and 3 of this paper, would be an invaluable contribution.

Conclusion

Through the Inuit Circumpolar Conference, Greenland has for several years been engaged in cultural exchanges with Alaska and Arctic Canada. Perhaps it is time for Greenland to consider Canada's multitude of alternatives to Greenland's far more centralized and uniform systems of alcohol control. Perhaps it is time for Greenland to ask the advice of her citizens in one plebiscite or many.

In the autumn of 1983, an informal poll on alcohol control was taken in Nuuk, in which 510 people, or about 10% of the capital's population, participated. The poll revealed dissatisfaction with the current lack of restrictions, which only 30% supported. Seventy percent wanted either rationing (with 72 points) or prohibition. The results were as follows:

Chart 6: Informal poll on preferred alcohol regulations, Nuuk, Greenland (pop. 10,000), October 1983  
(Source: Nuuk Ugeavis 1983: 14)

Age of Respondents	No Restric- tions	Rationing 72 Points	Prohi- bition	Total Responding
12-17 years old	19 (23.2%)	34 (41.5%)	29 (35.3%)	82 (16%)
Adults	114 (31.0%)	154 (36.0%)	140 (33.0%)	428 (84%)
TOTAL	153 (30.0%)	188 (37.0%)	169 (33.0%)	510 (100%)

But finally, when all the endless statistics are read and digested, perhaps what speaks most eloquently is the sadness and suffering in this eighth-grade boy's school essay on "How I experience alcohol in daily life":

....I know that alcohol is harmful, and I know that it doesn't have any useful effects. Therefore I hope that someday they'll close down selling it while I'm still alive, or also, that my parents will join Blue Cross [temperance society].

Well, when a person drinks, it must be because he/she has delightful experiences, but our experiences are not lovely. For example, a child becomes afraid when its parents drink. You wonder a lot. For example, when my mother is drunk one thinks, "perhaps she'll die." That's

how I feel. It's also bad when they argue/fight. Awake all night, can't fall asleep because you feel so insecure, sad, crying, you have all these bad experiences. But that's why we also sometimes try to say stop.

It is not particularly funny to see Father go home with a case under his arm. Sometimes I think about throwing the case out, but can't. I don't like to come home and see them drinking in the living room. So I ask for money and leave again. I first come home again very late, when they have gone to bed. It feels more secure when they are in bed. But the next morning I get up in a house which hasn't been cleaned, where there's still drinking. You become very insecure. He couldn't hit the toilet bucket when he went out to pee. It stinks out there and it has to be cleaned.

I have many experiences with alcohol use. I don't think that alcohol is a good thing. That's the way it is. When my father doesn't have anyone to drink with, he telephones around to his friends and invites them. And they come. I grow sad, the feelings inside me are not nice. When my parents go to bed drunk, their bedroom smells of liquor.

I also become sad when, for example, someone asks me: "Where is your mother?" So I just answer, "My parents are sleeping." I'm also ashamed when I go out with empty beer cases. The other children ask, "Who has drunk them?" I'm also ashamed when I accompany my parents along the road while they are drunk. I feel very ashamed.

Grandmother says to me: "You must not be together with drunk people." I remember her words, when I see drunk people. My grandparents do not drink.

That's why I love them and fetch water for them.

When I see my parents drink, I also remember the sentence: "Thou shalt honor thy father and mother."

Sometimes I meet a young man who is drunk. Even though he invites me, I don't go with him.

When I come home and see something good on the television, I become afraid, because I am home alone. I come to think about alcohol. There is also an older man who goes around and tries to sell something when he's drunk. I have had unpleasant experiences with him. But he laughs so funny. It sounds almost like: "Whued."

When my parents have been drinking, either I don't go to school, or I come an hour late. Then I am very ashamed.

There is also an old man, who always says, "It doesn't matter, does it?" Some time ago I saw him answer the call of nature by a house. He is also very pitiable.

Finally I just want to say  
bye!

(Written by a boy in the eighth grade;  
Illimi 1982: 7-8; translation mine.)

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200 1  
Esa Österberg

## THE PRICING OF ALCOHOLIC BEVERAGES AS AN INSTRUMENT OF CONTROL POLICY

### 1) The purpose of the inquiry

In examining the <sup>ing</sup>prices of alcoholic beverages as an instrument of control policy, one's interest is drawn ultimately to the question of whether alcohol consumption can be curtailed and guided by an active pricing policy. An attempt is made in the following to elucidate the problems involved by reviewing econometric studies dealing with the consumption and prices of alcoholic beverages and examining the price trends in certain countries.

### 2) Have the prices of alcoholic beverages any effect on consumption?

Although doubts have often been expressed, especially in everyday discussion, about the effect of pricing policy on the consumption of alcoholic beverages, it can be stated on the strength of many econometric studies that price changes are bound up with changes perceived in the consumption of alcoholic beverages (Appendices 1A-1D). The effect of prices has been reported in econometric studies in precise numerical terms, price elasticities, besides which it has been sought to explain the changes taking place in alcohol consumption. In the following, then, consideration will be given to the explanation of consumption and the interpretation, generalization and application of the results

2)

of the econometric studies.

3) On explaining alcohol consumption

On quite a general level, it may be observed that the consumption of alcoholic beverages is based in a very complicated way on factors that may be designated as the "use value" of the beverages. There are two distinguishable sides to the use values of alcoholic beverages: on the one side, human beings have preferences or needs, which they seek to satisfy; and, on the other side, alcoholic beverages have properties by means of which human beings are able to satisfy their needs. It is quite significant in this connection to note that human needs are not psychological constants but are bound to time, place and social circumstance. Inasmuch as needs are historically determined, they change in the course of time, in response to evolutionary progress and upon the persons' concerned moving from one region to another. Nor are the properties of alcoholic beverages beneficial to people constant, either, for they likewise change with progress - and they are developed knowingly, too.

By way of example, it may be stated that alcoholic beverages presumably have at least the following use values: <sup>as a</sup>nutriment (wine, in France and Italy; beer, in Germany), <sup>as an</sup>essential commodity for alcoholics, <sup>as a</sup>medicine, and <sup>as an</sup>agent intended to enhance pleasure by, among other things, aiding in the making of contacts, releasing from inhibitions, breaking the everyday routine and escaping from realities. The significance of these use values varies with different classes of people, different regions and different periods of time. Further, it may be stated that in its many practical ap-

3)

plications, alcohol can be replaced by other commodities, and that the relationship with such substitutes is variable, too. Alcohol consumption and the changes taking place in the consumption of alcoholic beverages may be considered to be connected with the following circumstances: 1) (varying) human needs, which are bound up with time and place, 2) the (varying) properties of alcoholic beverages, or their capability of satisfying human needs, 3) the (varying) capability of other products to satisfy the same needs as alcoholic beverages do, 4) the (varying) real incomes of people and the (varying) distribution of income, 5) the (varying) restrictions imposed on the production and retail distribution of various alcoholic beverages and surrogates, and 6) the (changing) prices of alcoholic beverages in relation to the prices of near substitutes.

When it has been endeavored in econometric studies to interpret the changes taking place in the consumption of alcoholic beverages in the light of changes taking place in consumer incomes, alcohol prices, the prices of near substitutes and the general price level as well as in the distribution systems and sales restrictions, what is involved is only statistical interpretation. In econometric research, explaining consumption in the ordinary sense is therefore not in question.

#### 4. On the problems and limitations of econometric studies

Many problems are involved in econometric studies aimed at interpreting changes in the consumption of alcoholic beverages. First, it should be noted that the analyses performed are not i

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themselves produce any new information — but only organize the information that exists in latent form in the basic data used (SOU 1972:91). This circumstance highlights the significance of accuracy and veracity in the primary information. On the other hand, it also means that the results of the analyses apply in principle only to the regions, times and conditions that produced the primary data. If, for instance, the prices used as the dependent variable had risen at an even rate during the period under investigation, the econometric analysis would not reveal what might have happened had the prices risen abruptly or if the prices had decreased steadily.

In the second place, it is obvious that all the relevant dependent variables could not be taken into account in econometric studies. Thus, for example, the behavior of the markets has in most cases been perforce assumed to have been constant. This means that in econometric studies, preferences or needs, the properties of alcoholic beverages, the properties of other commodities and the distribution of income have in most cases been assumed to remain constant. If the influence of these factors has been included in a trend, the assumption will have been that the effects have been rectilinear.

In econometric studies, also the effect of dependent variables on the independent variable — or elasticities — has most frequently been assumed to be constant. Since, moreover, it has been necessary, on account of the procurement of basic information, to resort to a large aggregate level with respect to both the consumers and the alcoholic beverages, the constant price elasticity depicts the average reaction of different indi

5)

viduals and of the same individual to the average change in the prices of alcoholic beverages taking place during the period under investigation. In reality, different individuals and groups react in different ways to changes in the prices of alcoholic beverages, and the reaction of the same individual is also apt to change in the course of time.

In the fourth place, it is apparently difficult to distinguish the influence of different dependent factors if the dependent variables have developed along parallel lines during the period under investigation. This is true, for instance, when an increase in consumption is connected with rising incomes, falling prices and a rising trend brought about by non-economic variables.

#### 5. On the results of econometric studies

Although econometric studies include many problems, they can also be made to yield useful information, provided their limitations are borne in mind. The econometric studies carried out show fairly consistently that alcoholic beverages have behaved on the market like other commodities: as prices have risen, the consumption of alcoholic beverages has generally declined, and as prices have fallen, the consumption of alcoholic beverages has generally increased (Appendices 1 A-1 D). Studies have shown, furthermore, that the magnitude of the effect of prices varies in different groups of beverages, different countries, different regions (Appendix 1 C) and different periods even within the same country (Appendix 1 A).

From econometric studies it is obvious that there exist no universal values for elasticities of different beverage groups. For instance the price elasticity for beer seems to be very low in Canada (-0.03), Ireland (-0.17) and in Finland (-0.20), but very high in Sweden (-3.0). Also the elasticities for spirits vary a great deal in different countries (-0.3 to -2.0). The same is true for wine (-0.3 to -1.72). Although part of the observed differences is due to the different models and methods which have been applied, to the nature of the estimated elasticities (long- and short term elasticities) and also to the method of aggregating the basic data, it is obvious that elasticities are no properties of the beverage types themselves. The values of the elasticities and the differences in these values must be seen in the light of relative prices of alcoholic beverages, systems of distribution and use values. As a moderate conclusion it might perhaps be suggested that price elasticity may be greater for off-sales than for on-sales (Sweden and Finland) and that price elasticity may increase at the lifting of sales restrictions (Sou 1972:91). It seems, however, that the results of econometric studies apply only for the area with which the study is concerned.

If econometric demand analysis has sufficiently explained the observed variation in consumption and if other circumstances can be assumed to be constant, econometric models may be of help to predict the consumption of alcohol. Then also the elasticities may be used in planning price policies. The price elasticity expresses the effect of price changes in consumption and therefore it can be used in estimating how large price rises are required to attain the wanted level of consumption. Price elasticities can also be used to foresee how much an attainable price rise will cut off the consumption and to decide what are the most sensitive objects of restrictive price policies.

6. The development of prices in some countries

CANADA: From 1949 to 1971 the real prices of alcoholic beverages have slightly fallen with exception of wine. The real price of beer has fallen mostly (1949 107, 1971 90). The yearly changes have been small. (Appendix 2 A)

NETHERLANDS: From 1952 to 1967 the real prices of alcoholic beverages have fallen. The real price of wine have fallen mostly (1952 137, 1967 89). There are some big changes in prices, for example the real price of genever rose 20 % in 1966 and the consumption of spirits (alcools) decreased 23 %. (Appendix 2 B)

ITALY: From 1951 to 1966 the real prices of alcoholic beverages have slightly risen. The development of real prices have not been even and in 1965 there are big changes. (Appendix 2 C)

BELGIUM: From 1953 to 1964 the real prices of alcoholic beverages have slightly fallen. After 1964 the development differs. There are quite large yearly changes in late 1950s and after 1965. (Appendix 2 D)

GERMANY, FED. REP.: From 1955 to 1965 the real prices of alcohol beverages have fallen quite a lot. After 1965 the development of prices differs and there are big yearly changes especially in 1966. (Appendix 2 E)

SWEDEN: From 1956 to 1968 the real prices of alcoholic beverages have risen with exception of light wine (constant) and strong beer (fallen prices). In 1956 and 1957 there are big changes in prices and in consumption. (Appendix 2 G and 2 E)

FINLAND: In the period 1951-1973 the real price of alcohol have been constant. The real prices of wine and other spirits have fallen and the real price of vodka has risen. The yearly changes of prices have been small. (Appendix 2 I)

Appendix 1 A

Demand elasticities

Author	Country and time-period	Beverage	Income Elasticity	Price Elasticity	Trend (%/year)
Almqvist (1948) <sup>1</sup>	Sweden 1923-1939	Spirits	0.3	-0.3	
"	"	Wine	1.2	-0.9	
"	"	Liquor	0.30	-0.37	
"	"	Wine	1.32	-0.72	
Andström-Ekström <sup>1</sup> (1952)	Sweden 1931-1954	Spirits	0.9	-0.3	
		Wine	2.0	-1.6	
Byding-Rosen <sup>1</sup> (1959)	Sweden 1920-1951	Spirits (Renad Brännvin)	0.6	-0.4 -0.1	
		Wine	0.9	-1.6	
		Medium Beer	0.6	-1.2	
Itfeldt-Jorner <sup>1</sup> (1972:91)	Sweden 1956-1968	Off-sale Vodka	0.0	-0.9	-0.3
		" Other Spirits	1.4	-2.9	-
		" Fortified Wine	0.2	-0.7	-
		" Light Wine	-	-0.6	+7.3
		" Strong Beer	1.9	-3.0	-
		" Spirits	0.4	-1.2	-
		" Wine	(0.9)	-0.7	+5.8
		" Spirits + Wine	0.7	-1.0	-
		On-Sale Vodka	1.0	-0.3	-7.0
		" Other Spirits	0.2	-0.5	-
		" Strong Beer	0.0	-	-

## Appendix 1 B

## Demand elasticities

Author	Country and time-period	Beverage	Income Elasticity	Price Elasticity	Trend (% year)
Stone (1954) <sup>1</sup>	United Kingdom 1920-1938	Spirits	0.6	-0.6	
		Wine (imported)	1.4	-0.6	
		Wine (domestic)	1.7	-0.3	
"- 2	"-	Spirits	0.54	-0.72	
		Beer	0.14	-0.73	
Simon (1966) <sup>1,2</sup>	USA 1955-1961	Spirits	-	-0.79	
Niskanen (1960) <sup>2</sup>	USA 1934-1954	Spirits	-	-1.74	
Niskanen (1962) <sup>2</sup>	USA	Spirits	-	-1.42	
Niskanen <sup>1</sup>	USA 1934-41, 47-60	Spirits	-	-2.0	
Walsh -Walsh (1970) <sup>2</sup>	Ireland 1953-1967	Spirits	1.94	-0.57	
		(after correcting for serial correlation bias)	2.06	-0.44	
		Beer	0.78	-0.17	
Schweitzer (1969) <sup>2</sup>	Canada	Alcoholic Beverages	0.88	-0.19	
Lau (1973) <sup>2</sup>	Canada 1949-1969	Spirits	0.68	-1.45	+0.94
		Wine	1.43	-1.65	+2.1
		Beer	0.20	-0.03	+0.2

Sources: <sup>1</sup> Efterfrågan på rusdrycker i Sverige, SOU 1972:91, Stockholm 1972

<sup>2</sup> H. H. Lau: Time Series Regression Analysis of Per Adult Consumption of Alcoholic Beverages I, Canada 1949-1969

H. H. Lau: Cost of Alcoholic Beverages as a Determinant of Alcohol Consumption

Author: H.H. Lau (1973)

Country and time-period: Eight Canadian Provinces 1933-1969

Spirits			
Province and time-period	Income Elasticity	Price Elasticity	Trend (% year)
Nova Scotia 1933-1969	1.50	-1.19	-2.90
New Brunswick 1955-1969	1.35	-0.80	negative
Quebec 1939-1969	1.89	-0.60	-4.17
Ontario 1935-1969	1.38	-1.60	no
Manitoba 1944-1969	0.62	-0.58	+2.41
Saskatchewan 1946-1969	0.19	-0.23	+4.03
Alberta 1953-1963	0.00	-1.30	+2.86
British Columbia 1953-1969	0.94	-1.74	-1.24

Wine			
Province and time-period	Income Elasticity	Price Elasticity	Trend (% year)
Nova Scotia 1933-1969	0.82	-1.52	no
New Brunswick 1955-1969	0.78	+1.67	no
Quebec 1939-1969	2.25	-0.40	-0.36
Ontario 1935-1969	0.69	-0.15	no
Manitoba 1944-1969	1.37	-0.56	+2.45
Saskatchewan 1946-1969	0.01	-0.90	positive
Alberta 1953-1969	0.03	-2.75	+7.77
British Columbia 1953-1969	1.94	-4.56	no

Beer			
Province and time-period	Income Elasticity	Price Elasticity	Trend (% year)
Nova Scotia 1933-1969	1.51	-0.95	-2.57
New Brunswick 1955-1969	1.16	-0.58	no
Quebec 1939-1969	2.02	-1.08	-4.45
Ontario 1935-1969	2.11	-0.55	-2.17
Manitoba 1944-1969	0.70	-0.17	no
Saskatchewan 1946-1969	0.07	-0.38	+1.24
Alberta 1953-1969	0.00	-1.19	no
British Columbia 1953-1969	0.53	-1.36	+0.60

Author: Nyberg (1967)

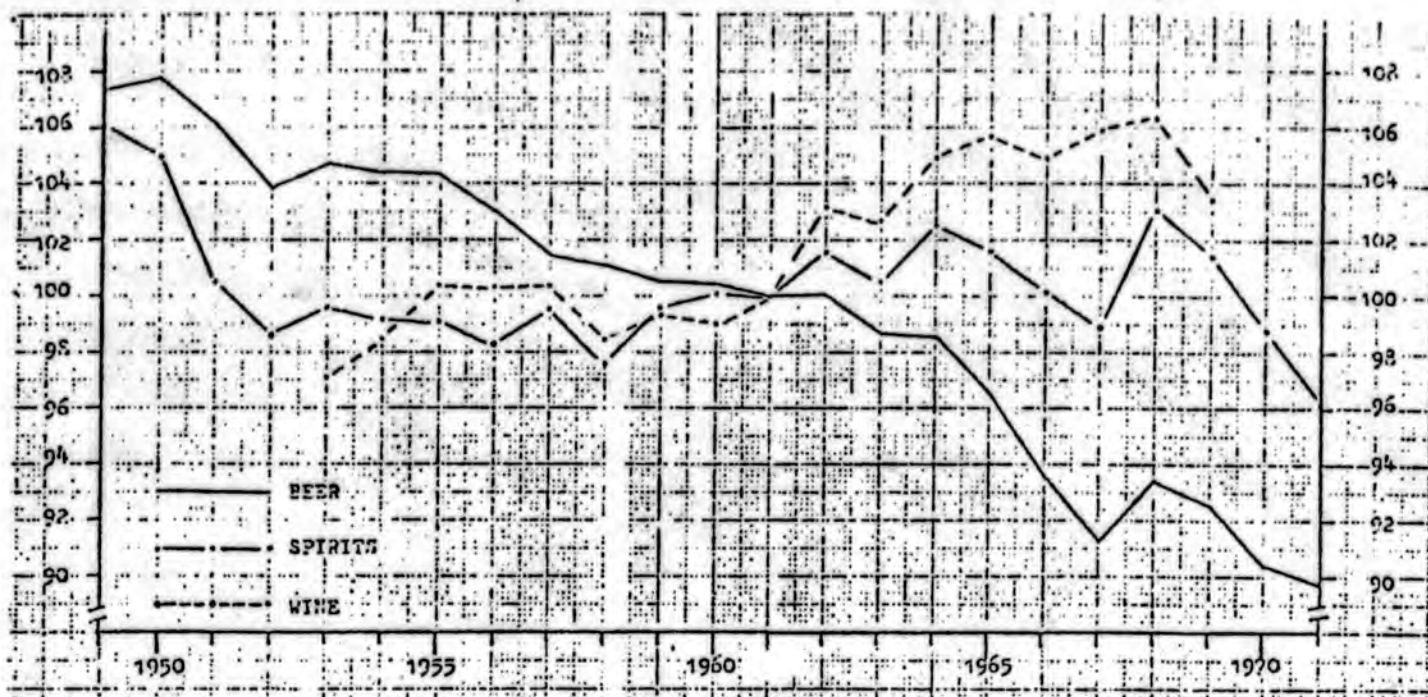
Country and time period: Finland 1949-1962

Static Model		
Beverage	Income Elasticity	Price Elasticity
Vodka	0.42	-0.13
Other Spirits	1.30	-0.95
Wine	0.97	-0.83
Beer	0.97	-0.49
Total Off-Sales	1.05	-1.17
Total On-Sales	0.94	-0.99
Total Sales	1.01	-1.11

Dynamic Model			
Beverage	Income Elasticity		Price Elasticity
	Long run	Short run	
Vodka	0.84	0.25	-0.60
Other Spirits	1.62	0.49	-1.10
Wine	1.29	0.39	-0.99
Beer	0.64	0.17	(+0.01) -0.20
Total Off-Sales	1.14	0.34	-0.99
Total On-Sales	0.87	0.26	-0.38
Total Sales	1.03	0.31	-0.75

Price and cross elasticities $e_{p, ij}$ (estimated by preference funktion)				
1	J			
	1	2	3	4
1. Vodka	0.91	-0.19	-0.09	-0.05
2. Other Spirits	-0.21	1.40	-0.10	-0.05
3. Wine	-0.33	-0.31	1.72	-0.09
4. Beer	-0.17	-0.15	-0.08	0.60

Price Indexes in 1961 Prices, Canada 1949-1971, 1961=100



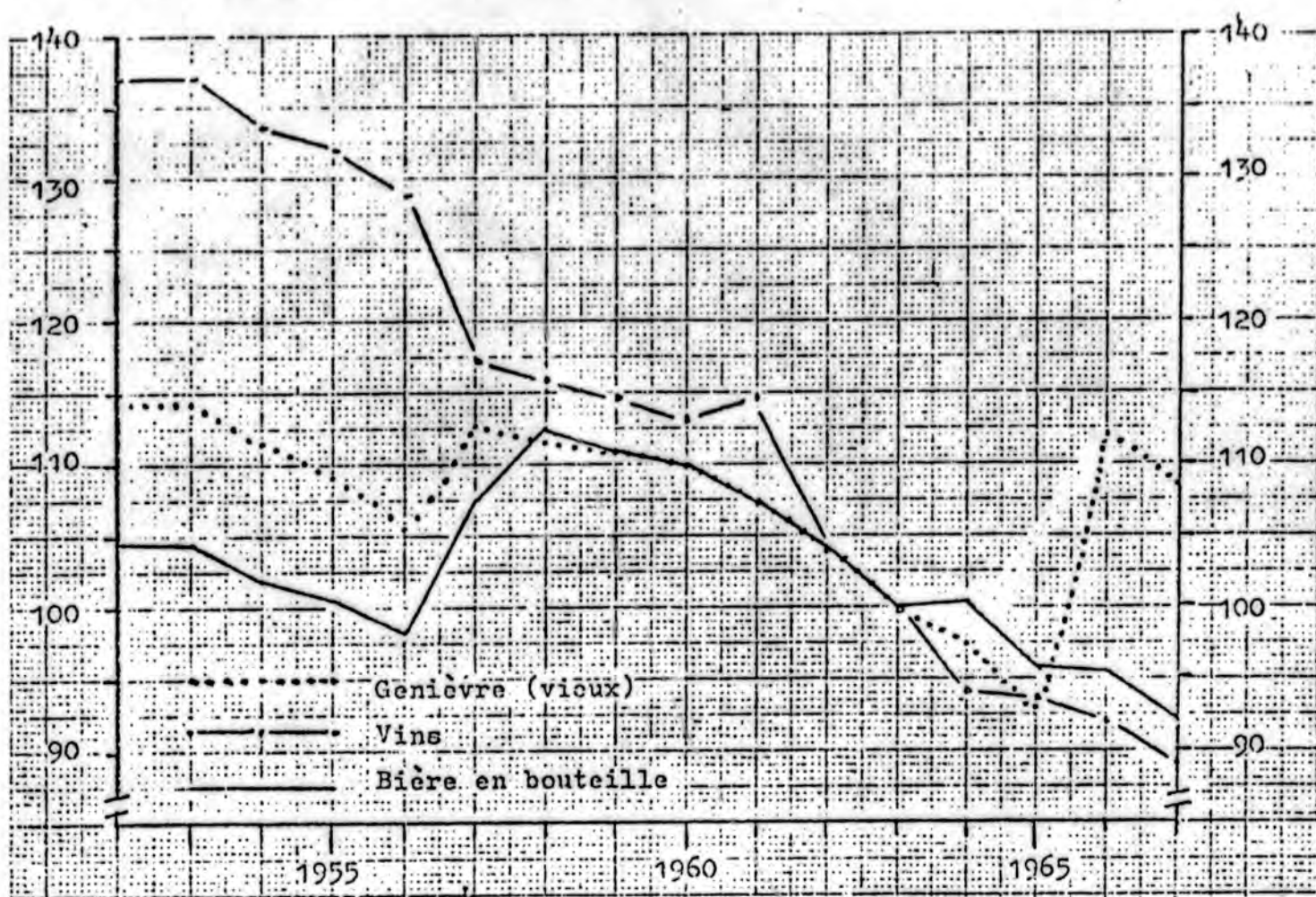
Per Adult Consumption of Alcoholic Beverages (gallons) and Price Indexes in 1961 Prices (1961=100), Canada 1949-1971

YEAR	Per Adult Consumption				Price Indexes		
	BEER	SPIRITS	WINE	ABSOLUTE ALCOHOL	BEER	WINE	SPIRITS
1949	18.0910	0.952386	0.506235	1.36650	107.313		106.163
1950	17.8443	0.987085	0.517351	1.36982	107.709		104.907
1951	18.2279	1.01160	0.523783	1.39984	106.182		100.568
1952	19.3673	1.05261	0.523668	1.47319	103.769		92.6505
1953	19.8296	1.07654	0.526125	1.50627	104.698	97.1730	99.6309
1954	19.0271	1.07206	0.541305	1.46679	104.394	98.5936	99.2658
1955	19.3979	1.11360	0.556040	1.50430	104.351	100.403	99.1343
1956	19.7854	1.17682	0.576087	1.55217	103.02	100.392	98.3479
1957	19.8897	1.19957	0.601678	1.57958	101.548	100.413	99.5970
1958	19.1007	1.25842	0.659578	1.56293	101.074	98.4930	97.6136
1959	19.7640	1.24240	0.668543	1.59212	100.531	99.4609	99.6220
1960	19.8996	1.24303	0.692230	1.60220	100.494	99.0351	100.161
1961	19.9502	1.26439	0.719573	1.61840	100.000	100.000	100.000
1962	20.3272	1.29970	0.743381	1.65598	100.049	103.294	101.660
1963	20.8522	1.36130	0.789456	1.71344	98.7172	102.715	100.534
1964	21.2357	1.34956	0.781154	1.72659	98.5873	104.523	102.557
1965	21.2909	1.49174	0.978154	1.80174	96.5922	105.726	101.676
1966	21.6642	1.56576	0.931782	1.85860	93.5369	104.967	100.180
1967	21.9082	1.63053	0.973926	1.90345	91.3345	105.921	98.9001
1968	21.7415	1.61724	1.008410	1.89532	93.4222	106.358	103.164
1969	22.1904	1.62661	1.131800	1.94125	92.5100	103.477	101.434

Sources: H. H. Lau: Time Series Regression Analysis of Per Adult Consumption of Alcoholic Beverages I. Canada 1949-1969

H. H. Lau: Cost of Alcoholic Beverages as a Determinant of Alcohol Consumption

Price Indexes in 1963 Prices, Netherlands 1952-1967, 1963=100

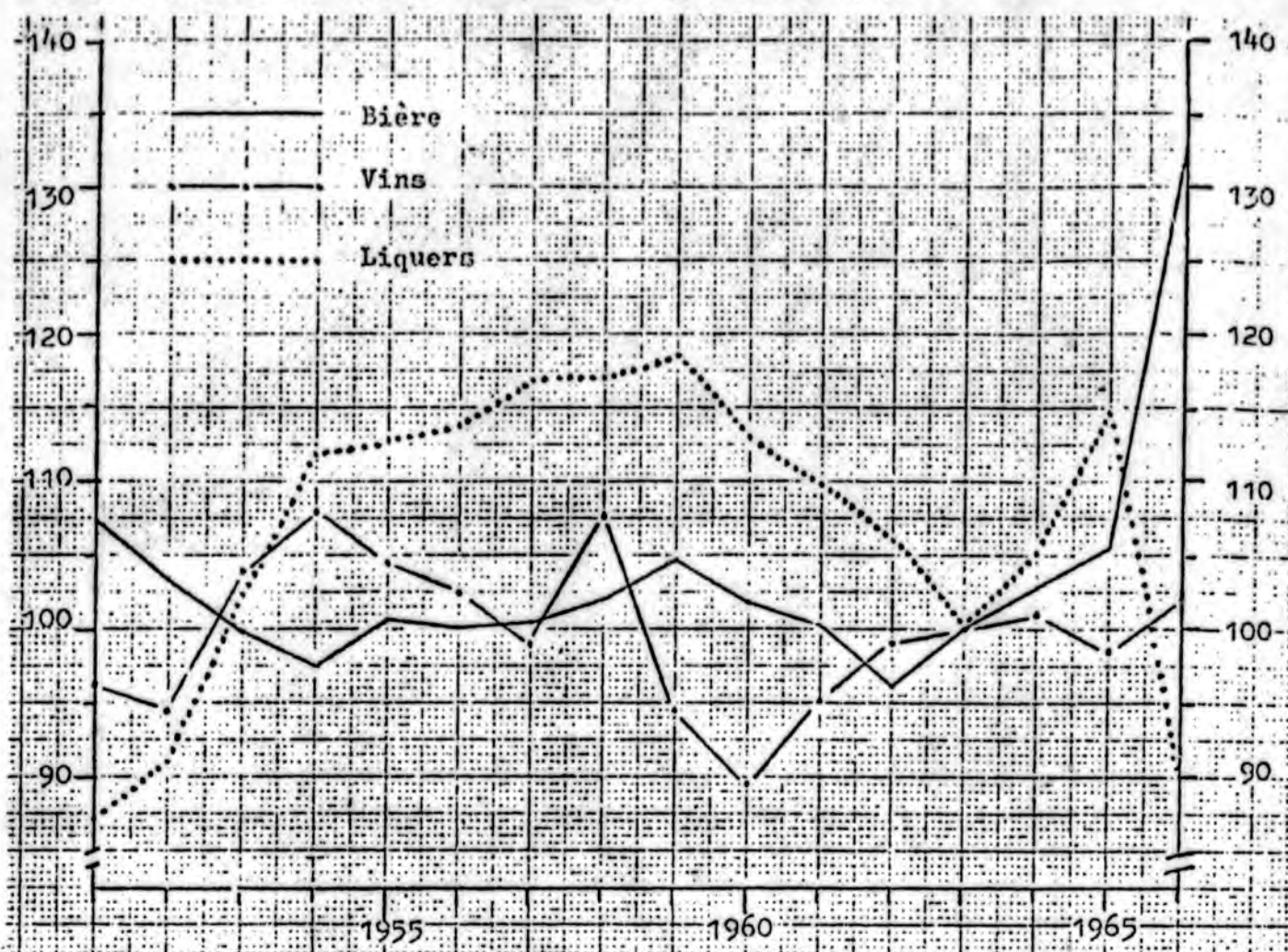


Volume and price indexes, Netherlands 1952-1967, 1963=100

Année	Volume			Indice volume de la consommation privée intérieure	Price				Consommation privée
	Bière	Vins	Alcools		Boissons non alcoolisées	Bière en bouteille	Vins	Genièvre (vieux)	
1952	30,3	19,3	66,9	57	86,0	82,5	108,2	90,3	79
1953	34,6	22,9	65,8	60	86,8	82,5	108,2	90,3	79
1954	38,4	31,3	70,9	64	85,1	82,5	108,2	90,3	81
1955	46,7	40,3	72,5	63	85,1	82,5	108,2	89,7	82
1956	50,5	49,9	81,6	74	84,3	82,5	103,2	88,7	84
1957	59,8	53,0	67,9	74	90,9	94,4	103,2	92,2	83
1958	60,6	52,7	70,2	74	97,5	100,0	103,2	99,7	89
1959	70,0	53,6	69,2	78	100,0	100,0	103,2	100,0	90
1960	73,6	69,2	76,1	82	100,8	100,0	103,2	100,0	91
1961	82,4	87,3	80,5	87	100,8	100,0	106,7	100,0	93
1962	87,6	93,4	92,6	93	100,0	100,0	100,0	100,0	96
1963	100,0	100,0	100,0	100	100,0	100,0	100,0	100,0	100
1964	113,8	111,9	104,2	106	103,3	106,3	100,0	103,2	106
1965	122,6	131,6	135,7	114	109,9	106,3	104,0	103,2	111
1966	130,2	139,1	104,0	117	114,0	112,7	109,0	132,3	118
1967	149,4	167,2	120,1	122	117,4	112,7	109,0	132,3	122

Source: Effets du prix et du revenu sur la consommation des boissons dans les États membres des Communautés, Bruxelles 1972.

Price Indexes in 1963 Prices, Italy 1951-1966, 1963=100



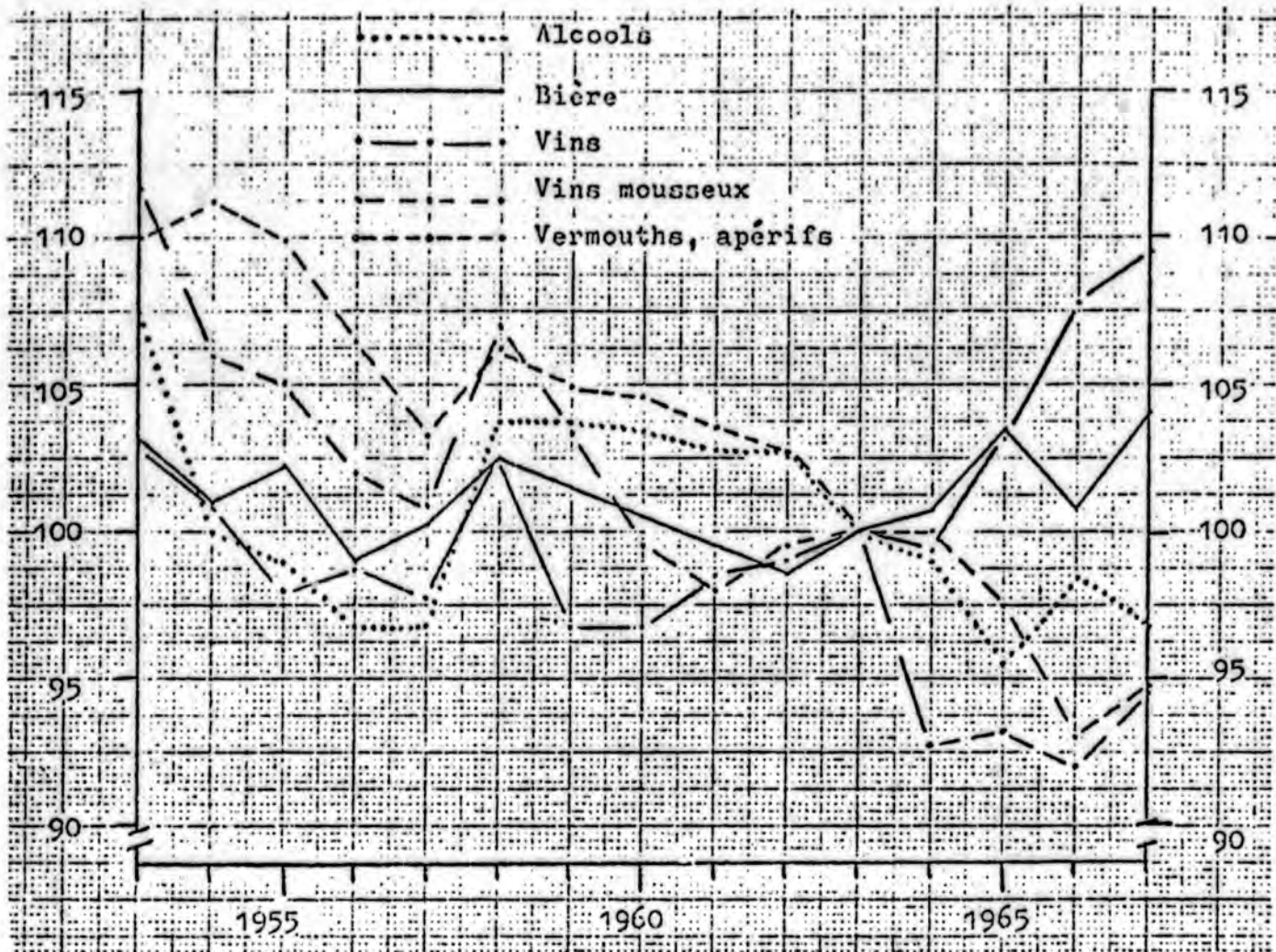
Volume and price indexes, Italy 1951-1966, 1963=100

	Volume				Price				Ensemble des boissons	Consommation totale
	Vins	Bière	Liqueurs	Ensemble des boissons alcoolisées	Vins	Bière	Liqueurs	Ensemble des boissons alcoolisées		
1951	63,9	34,1	39,0	57,9	65,1	72,4	58,7	64,8	70,0	67,5
1952	68,3	35,3	40,7	61,7	67,0	73,3	64,6	67,1	72,2	70,9
1953	72,7	37,6	44,1	65,3	78,2	75,0	76,9	77,9	80,9	75,2
1954	77,2	38,8	45,8	69,6	84,0	75,8	87,0	83,9	87,7	77,8
1955	81,9	41,2	49,2	73,9	83,1	80,0	89,7	83,5	88,4	79,5
1956	85,9	41,2	51,7	77,3	84,2	82,3	93,4	84,9	88,5	82,1
1957	87,0	42,4	53,4	78,5	82,1	83,3	96,8	83,5	87,6	82,9
1958	88,1	45,9	55,9	80,0	92,2	87,2	100,0	92,6	94,7	85,5
1959	91,2	55,3	58,5	83,6	80,8	89,4	101,4	83,2	87,4	85,5
1960	92,6	62,4	62,7	85,9	78,1	88,7	98,6	80,7	85,9	87,2
1961	94,3	75,3	67,8	89,1	84,8	89,1	97,5	86,4	89,9	88,9
1962	96,2	91,8	81,4	93,9	92,4	89,7	99,0	92,9	94,7	93,2
1963	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1964	97,1	103,5	102,5	93,4	107,2	109,1	111,6	108,0	108,1	106,0
1965	102,0	108,2	103,4	102,7	108,7	116,3	126,2	111,7	113,0	110,3
1966	108,1	125,9	105,1	109,4	115,3	149,5	101,6	117,2	117,5	112,8

Source: Effets du prix et du revenu sur la consommation des boissons dans les États membres des Communautés Européennes 1951-1966

Appendix 20 BELGIUM

Price Indexes in 1963 Prices, Belgium 1953- 1967, 1963=100

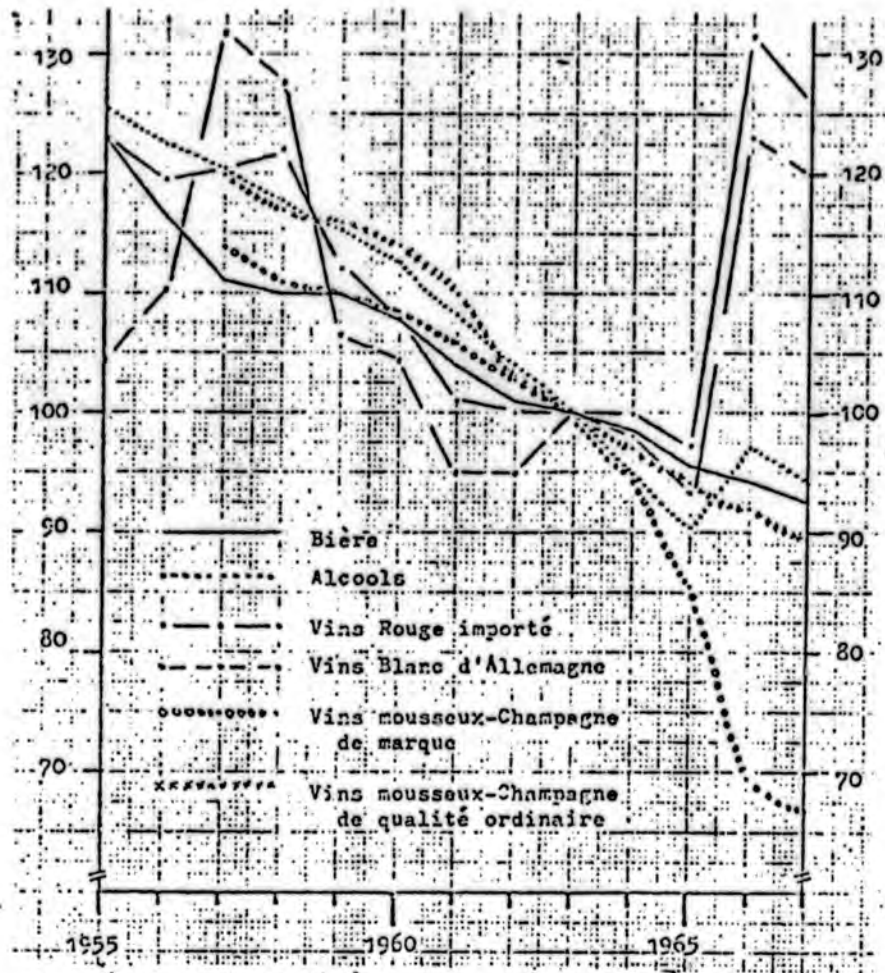


Volume and Price Indexes, Belgium 1953-1967, 1963=100

		1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Volume	Vins	62,4	71,7	73,3	81,5	88,3	77,4	81,4	93,3	101,0	91,2	100,0	106,2	116,0	112,7	110,0
	Vins mousseux	69,6	75,7	79,3	78,8	88,0	79,9	80,2	89,4	85,4	92,5	100,0	124,9	153,1	143,9	159,9
	Vins et vins mousseux (3)	63,4	72,2	74,1	81,2	88,2	77,8	81,3	92,8	95,9	91,4	100,0	103,6	120,7	115,6	116,3
	Vermouths, apéritifs (4)	93,9	98,9	98,9	100,0	105,8	107,9	109,5	118,8	119,6	116,5	100,0	101,1	114,7	88,0	130,1
	Ensemble des vins (3 + 4)	66,6	74,6	76,4	82,9	89,9	80,5	83,9	95,2	100,8	93,7	100,0	107,9	123,2	114,1	117,5
	Bière	99,5	94,3	96,9	94,5	98,4	99,2	103,5	92,5	101,7	99,5	100,0	104,8	102,6	102,5	106,1
	Alcoola	58,5	60,3	61,6	61,7	65,7	62,3	60,0	78,3	74,4	87,8	100,0	103,5	122,1	103,1	98,2
ENSEMBLE DES BOISSONS ALCOOLISÉES	84,9	83,5	85,7	85,4	89,8	87,9	90,6	93,5	95,5	95,9	100,0	104,4	109,7	104,6	107,5	
Price	Vins	89,5	89,5	86,0	89,5	91,3	95,7	92,3	93,1	95,8	97,2	100,0	104,0	112,0	122,0	127,0
	Vins mousseux	97,0	93,8	92,2	92,2	94,2	100,8	93,4	95,8	95,4	97,6	100,0	97,2	101,2	104,1	109,7
	Vins et vins mousseux (3)	90,4	90,0	86,8	89,8	91,7	97,2	93,0	93,4	95,9	97,3	100,0	103,0	110,9	119,2	124,0
	Vermouths, apéritifs (4)	96,4	98,5	95,4	95,4	96,4	100,1	100,0	100,6	100,6	100,7	100,0	101,7	105,7	105,3	110,0
	Ensemble des vins (3 + 4)	91,0	90,9	87,7	90,5	92,1	97,4	93,7	94,0	95,2	97,4	100,0	103,2	109,9	118,3	120,6
	Bière	89,7	89,7	89,7	89,7	93,6	96,7	96,7	96,7	96,7	96,7	100,0	103,5	112,4	114,1	122,7
	Alcoola	93,3	88,7	86,7	87,6	90,4	97,9	98,9	99,5	100,0	100,8	100,0	103,7	103,6	111,4	112,2
ENSEMBLE DES BOISSONS ALCOOLISÉES	90,7	89,9	89,1	89,7	93,0	97,2	96,9	96,9	97,4	97,7	100,0	104,7	109,9	114,3	119,4	

Source: Effets du prix et du revenu sur la consommation des boissons dans les

Price Indexes in 1963 Prices, Germany, Fed. Rep. 1955-1967, 1963=100



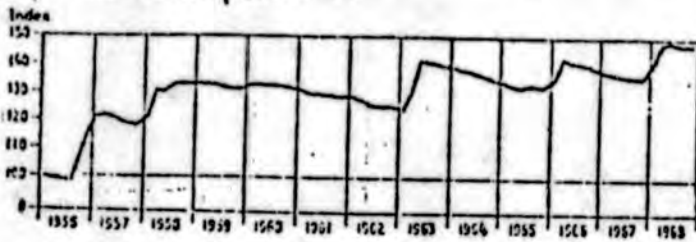
Volume and Price Indexes, Germany, Fed. Rep. 1955-1967, 1963=100.

		BOISSONS	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Volume	Vins mousseux .....		27,9	35,0	42,2	49,3	58,4	70,3	75,3	90,2	100,0	124,9	154,2	125,1	127,7
	Vins .....		62,9	64,1	54,2	53,0	73,0	79,2	93,5	94,4	100,0	89,0	108,2	118,9	116,6
	Vins et vins mousseux ...		59,6	61,3	53,1	52,7	71,6	78,4	95,3	94,0	100,0	92,4	112,6	119,5	117,6
	Bière .....		52,3	57,1	65,9	69,5	75,5	80,5	87,4	93,4	100,0	109,1	110,2	114,8	116,5
	Alcools .....		46,2	52,7	57,7	55,2	53,3	72,6	81,2	92,5	100,0	95,5	110,2	95,6	91,2
Price	Vins mousseux-Champagne de marque .....				99,9	99,9	99,9	99,9	100,0	100,1	100,0	97,0	90,2	76,3	74,6
	Vins mousseux-Champagne de qualité ordinaire .....				105,4	105,4	105,4	104,9	103,8	100,2	100,0	59,1	99,3	100,5	100,0
	Vins Blanc d'Allemagne ..	87,6	94,5	115,6	115,0	96,8	96,2	89,8	92,5	100,0	100,5	53,4	134,9	133,9	
	Vins Rouge importé .....	103,3	102,6	105,9	109,9	102,0	99,3	95,4	97,4	100,0	102,0	102,6	144,1	140,2	
	Bière .....	103,2	100,0	97,6	99,2	100,0	99,2	98,4	93,4	100,0	100,0	100,8	103,2	103,2	
	Alcools .....	105,2	105,2	105,7	106,1	105,1	103,5	102,2	101,2	100,0	97,0	95,4	105,4	104,9	

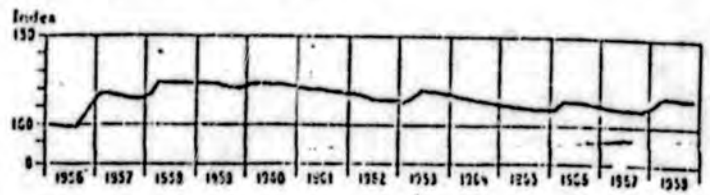
Source: Effets du prix et du revenu sur la consommation des boissons dans les Etats membres des Communautés, Bruxelles 1972.

Price Indexes in 1956 Prices, Sweden 1956-1968, I/1956=100

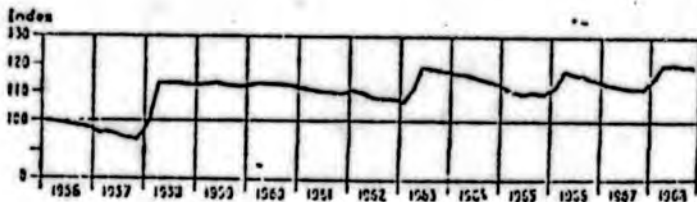
a. Vodka, off-sale



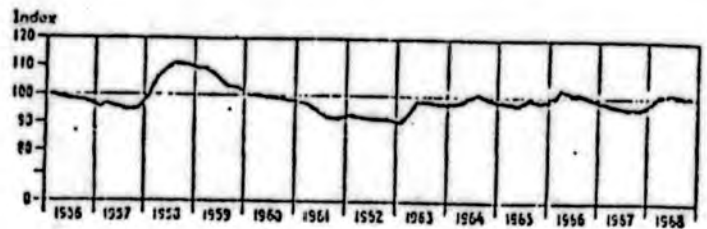
b. Other Spirits, off sale



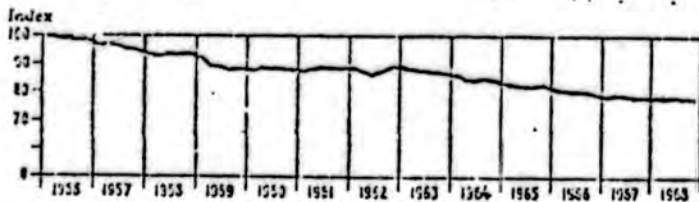
c. Fortified Wine, off sale



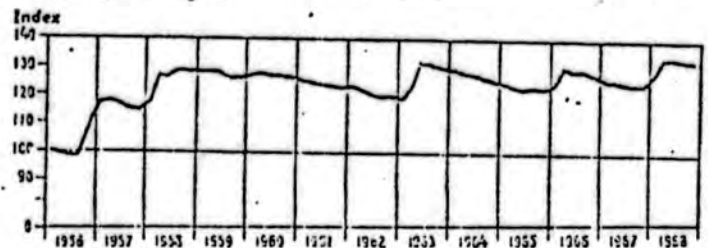
d. Light Wine, off sale



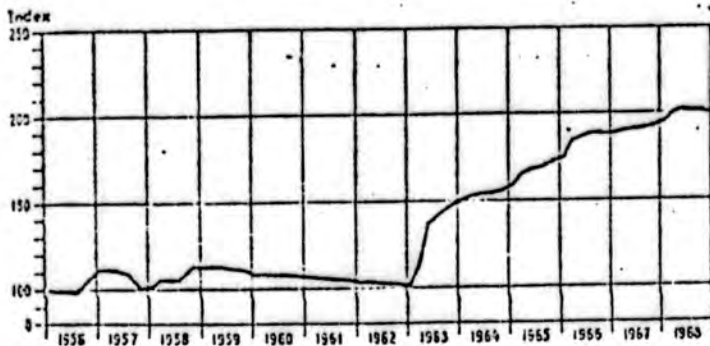
e. Strong Beer, off sale



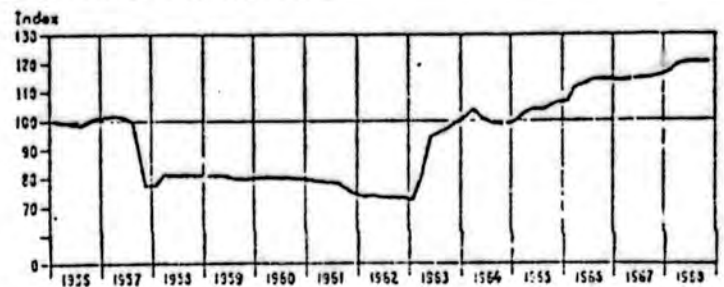
f. All Beverages, off-sale



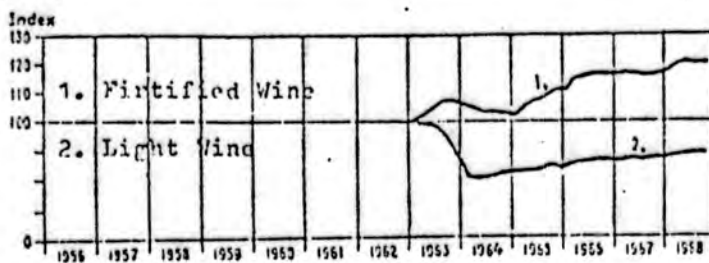
g. Vodka, on-sale



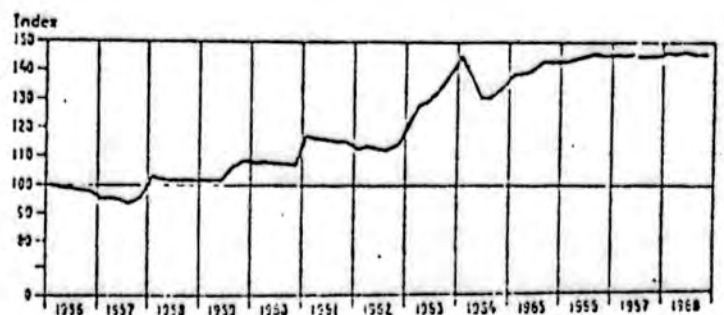
h. Other Spirits, on-sale



i. Fortified and Light Wine, on-sale



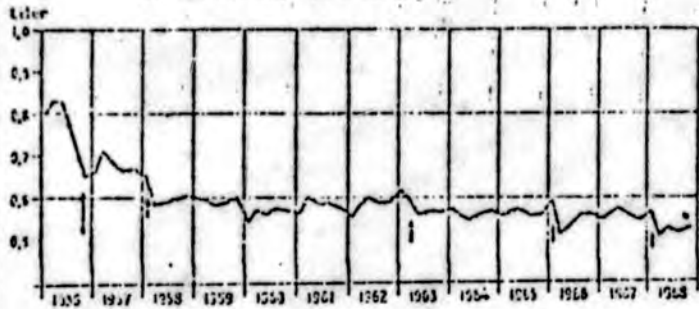
j. Strong Beer, on-sale



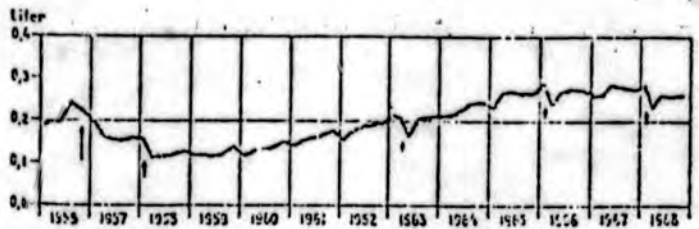
Appendix 2 G. SWEDEN

Consumption of Alcoholic Beverages litres per capita, Sweden 1956-1968

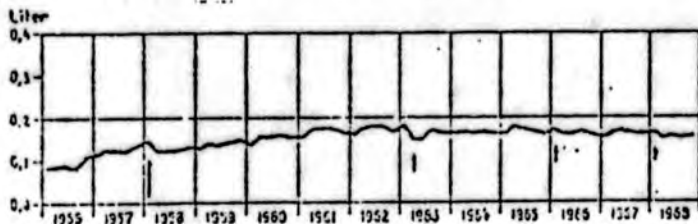
a. Vodkas, off-sale



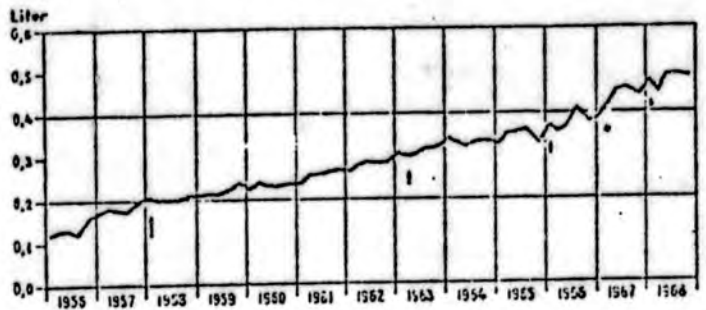
b. Other Spirits, off-sale



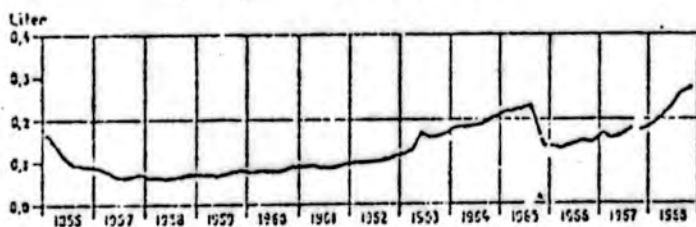
c. Fortified Wine, off-sale



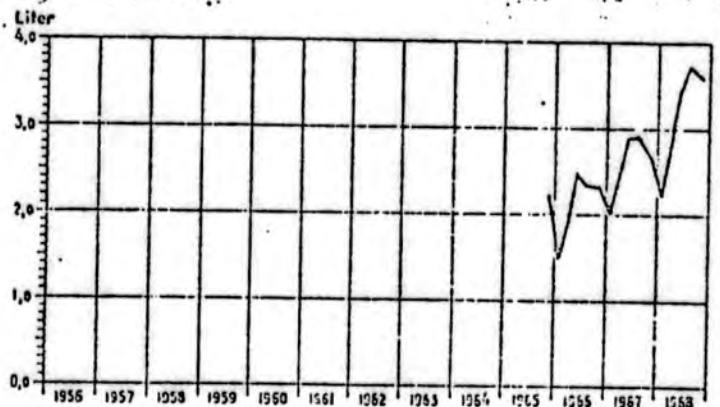
d. Light Wine, off-sale



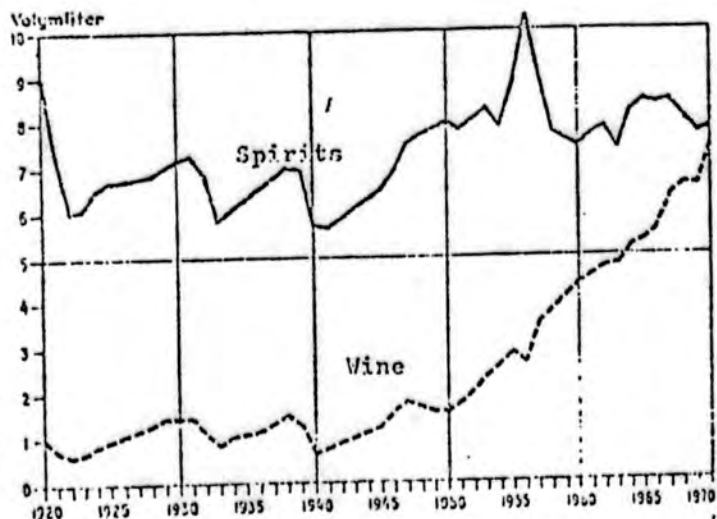
e. Strong Beer, off-sale



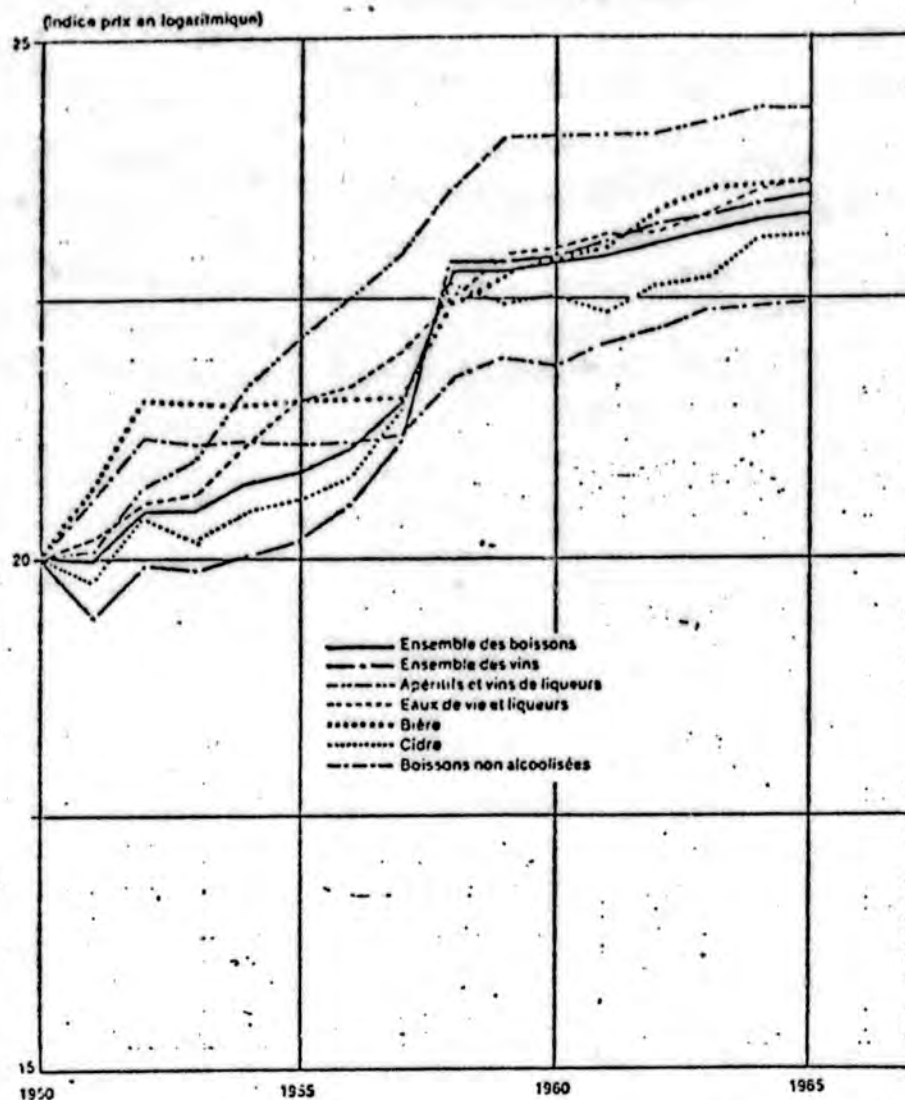
f. Medium Beer, off-sale



g. Total sales, litres per adult



EVOLUTION DU PRIX DES BOISSONS EN FRANCE DE 1950 A 1965



Indices des prix à la consommation, 1951=100

1948	77
1951	100
1952	111
1953	110
1954	110
1955	111
1956	113
1957	116
1958	133
1959	142
1960	147
1961	152
1962	159
1963	167
1964	173
1965	177

TABLEAU I

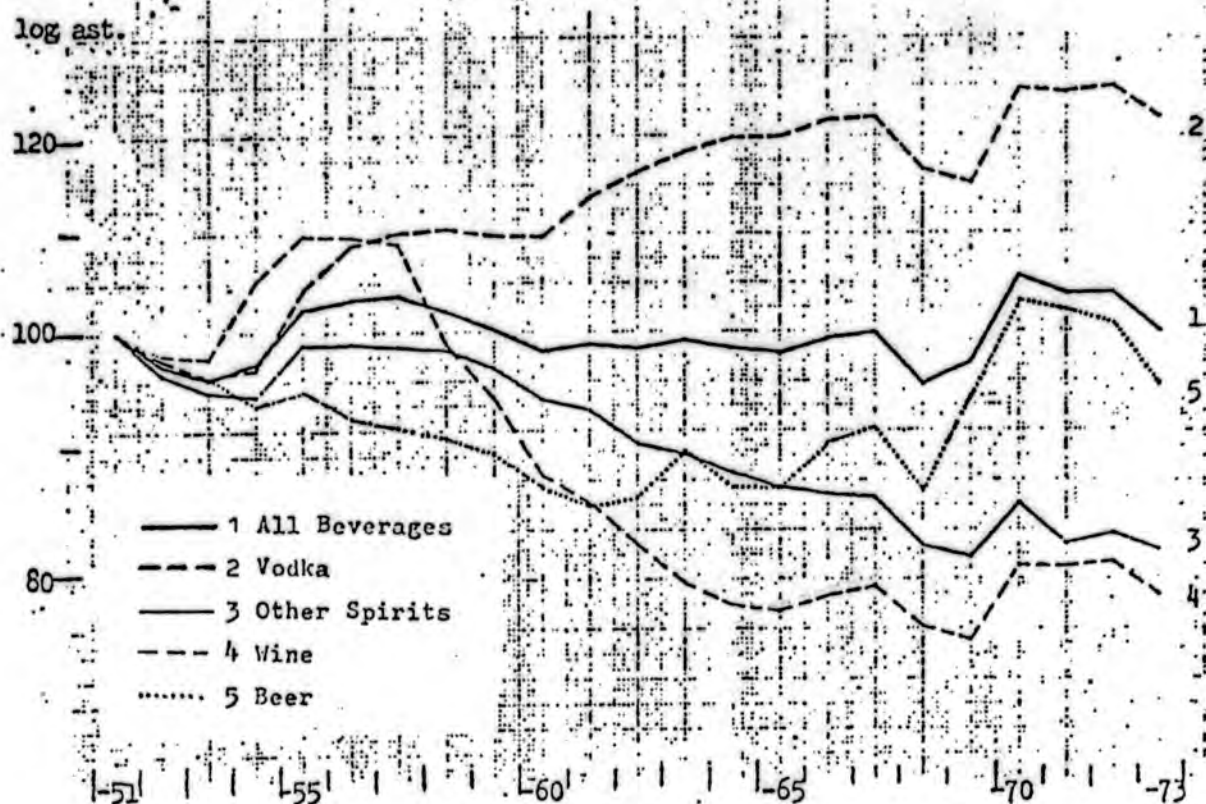
EVOLUTION DE LA CONSOMMATION DES BOISSONS ET DE LA CONSOMMATION TOTALE EN FRANCE DE 1950 A 1965

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Vins courants	100,0	95,6	100,9	102,7	107,3	110,0	111,4	117,7	113,7	103,5	110,0	110,5	114,1	114,4	116,6	117,2
Vins Champagne	100,0	100,0	100,0	100,0	117,0	133,0	155,0	176,0	136,0	141,0	172,0	190,8	29,7	231,1	256,5	295,0
V.D.N.	100,0	100,0	111,4	121,4	161,4	187,1	221,3	248,6	178,6	240,0	235,7	278,1	298,7	310,1	325,0	341,2
Vins A.O.C.	100,0	138,2	147,5	149,3	162,3	177,7	194,7	177,0	164,0	180,0	225,4	207,2	225,6	239,6	244,6	258,3
Ensemble vins	100,0	105,6	109,9	111,8	116,4	123,6	122,1	124,1	115,9	117,9	125,9	125,5	120,4	134,8	138,2	141,7
Aper. et vins de liqueurs	100,0	106,5	104,7	94,1	87,6	78,1	82,6	84,8	76,7	75,3	77,8	85,9	92,8	104,3	119,7	135,2
Eaux de vie et liqueurs	100,0	116,8	112,9	109,4	100,0	88,1	96,5	94,6	88,9	87,1	90,3	94,4	99,3	112,8	113,1	121,6
Bière	100,0	104,4	115,2	123,9	120,4	143,5	150,0	187,0	210,9	228,3	204,3	252,3	250,5	253,8	293,1	231,4
Cidre	100,0	102,0	103,4	93,9	87,2	84,5	71,6	67,6	58,8	62,2	59,1	57,1	54,2	54,4	57,5	48,8
Boissons non alcoolisées	100,0	108,4	119,6	132,9	143,4	179,7	195,8	227,3	215,4	232,9	244,5	289,2	309,2	344,8	397,6	390,8
Ensemble des boissons	100,0	106,3	108,8	110,1	111,5	115,4	117,3	121,3	116,4	119,5	123,8	129,0	134,7	142,5	151,5	156,1
Consommation totale	100,0	106,7	110,4	116,4	121,2	128,0	136,5	144,8	145,3	148,1	156,1	165,0	176,7	188,9	197,4	204,6

Source: Effets du prix et du revenu sur la consommation des boissons dans les Etats membres des Communautés, Bruxelles 1972

Appendix 2 I. FINLAND

Price Indexes in 1951 Prices, Finland 1951-1973, 1951=100.



The Consumption of Alcoholic Beverages in 100 % alcohol litres per capita, Finland 1951-1972

	Vodka			Other Spirits			Wine			Beer			All Beverages		
	off	on	Σ	off	on	Σ	off	on	Σ	off	on	Σ	off	on	Σ
Koko maa 1972	0,997	0,251	1,248	0,728	0,213	0,941	0,530	0,104	0,634	1,410	0,847	2,277	3,685	1,415	5,100
Vuonna 1971	1,019	0,224	1,243	0,638	0,182	0,820	0,521	0,081	0,602	1,281	0,774	2,055	3,459	1,261	4,720
» 1970	0,882	0,211	1,093	0,499	0,166	0,665	0,487	0,078	0,565	1,250	0,729	1,979	3,118	1,184	4,302
» 1969	0,801	0,182	0,983	0,446	0,153	0,601	0,435	0,081	0,517	1,407	0,697	2,104	3,070	1,118	4,200
» 1968	0,732	0,115	0,847	0,441	0,141	0,582	0,440	0,070	0,510	0,577	0,361	0,938	2,190	0,687	2,877
» 1967	0,711	0,090	0,801	0,475	0,150	0,625	0,409	0,068	0,477	0,465	0,270	0,735	2,060	0,578	2,638
» 1966	0,695	0,061	0,756	0,482	0,177	0,659	0,377	0,070	0,447	0,408	0,225	0,633	1,962	0,533	2,495
» 1965	0,701	0,046	0,747	0,460	0,184	0,644	0,335	0,067	0,402	0,363	0,196	0,559	1,859	0,493	2,352
» 1964	0,700	0,015	0,745	0,426	0,184	0,610	0,295	0,067	0,362	0,316	0,179	0,495	1,737	0,475	2,212
» 1963	0,736	0,047	0,783	0,433	0,191	0,624	0,247	0,067	0,314	0,280	0,170	0,450	1,696	0,475	2,171
Kuusikymmen 1972	0,762	0,052	0,814	0,413	0,197	0,610	0,196	0,063	0,259	0,259	0,168	0,427	1,630	0,480	2,110
Vuonna 1961	0,729	0,059	0,858	0,350	0,185	0,535	0,166	0,060	0,226	0,227	0,168	0,395	1,512	0,472	2,014
» 1960	0,795	0,061	0,856	0,279	0,169	0,448	0,140	0,054	0,194	0,186	0,163	0,349	1,400	0,447	1,847
» 1959	0,785	0,063	0,848	0,221	0,156	0,377	0,115	0,046	0,161	0,170	0,160	0,330	1,291	0,425	1,716
» 1958	0,708	0,063	0,771	0,229	0,151	0,380	0,112	0,040	0,152	0,159	0,158	0,317	1,208	0,412	1,620
» 1957	0,662	0,052	0,724	0,272	0,153	0,430	0,195	0,043	0,238	0,167	0,165	0,332	1,296	0,428	1,724
» 1956	0,662	0,055	0,727	0,321	0,164	0,485	0,248	0,051	0,299	0,153	0,170	0,323	1,384	0,450	1,834
» 1955	0,701	0,069	0,773	0,351	0,171	0,525	0,269	0,057	0,346	0,153	0,169	0,322	1,500	0,466	1,966
» 1954	0,625	0,067	0,692	0,375	0,161	0,536	0,288	0,059	0,347	0,134	0,175	0,309	1,422	0,462	1,884
» 1953	0,529	0,061	0,590	0,132	0,155	0,287	0,313	0,057	0,370	0,133	0,174	0,307	1,407	0,447	1,854
» 1952	0,565	0,052	0,617	0,502	0,183	0,685	0,198	0,055	0,253	0,149	0,170	0,319	1,414	0,469	1,883
» 1951	0,624	0,012	0,656	0,199	0,207	0,706	0,058	0,042	0,100	0,150	0,174	0,324	1,331	0,455	1,786
» 1938	0,846	0,014	0,860	0,133	0,088	0,221	0,018	0,010	0,088	0,032	0,232	0,264	1,059	0,174	1,233