# Convivial Regions Versus Sprawl: examples within Australia and within sub-continents of comparable physical scale

## 1) Introduction: dealing with sprawl "upstream" as well as on the spot

In the theme of the congress: "Urban growth without sprawl", it is inferred that sprawl is a bad thing and that there should be alternatives to this type of growth. To be at ease with this position, the need has been felt to have a glance at some familiar examples, so as to better appreciate the phenomenon.

The first three cases chosen here, Sydney, Paris and Cairo, were the object of study in a thesis published in 1997 (1). The case of Dacca has been added because of a change in nature of what can be considered as "sprawl". Some comparisons can be drawn.

Cairo, as an ancient foyer of civilisation has been marked by successive political regimes, so that one can observe the old quarters, the colonial city, then the more recent informal high density sprawl on agricultural land, contrasting the new satellite cities confirming a regional scale. Paris is an agglomeration of medium density, resulting from successive integration of villages and radical reconstruction of the central area. The new town concept followed in time, introducing concerted urbanisation on large areas of land within reach of the central city, in order to make way for intense pressure coming from the whole of the nation. Sydney as a city is a relatively recent development, beginning as a penal colony and trading post adapted to a very difficult terrain, followed by organic sprawl of relatively low density on the river plains to the west of the natural harbours. The resultant agglomeration covers an area similar to that of Paris and Cairo, but having a much lower level of population. The Dacca agglomeration has experienced extremely rapid growth following designation as capital of the new nation of Bangladesh in 1971. What is specific to this example is the very high density of population in the surrounding region. The dimensions of a potential urban region, considered in more classical terms of accessibility to central functions, covers about a quarter of the area of Bangladesh (144 000 / 4 = 36 000km2). As the national population is approximately 148 millions, a quarter of this figure gives an average regional population of 37 millions! There is an acute situation of impending sprawl by a population that is already present: the protection of agricultural land will depend on the choice of form of urbanisation! Through these examples, we can observe that, at a regional scale, there are various types of sprawl.

However, for each of these cases, there is a common denominator: each city is the hub of a highly centralised form of political power. As well as natural growth within a given region, there is exuberant growth due to both the commercial and political power structures. This is the place where all is decided, so this is where the jobs are. It is evident that sprawl must be dealt with already on the spot, (and many of the papers to be presented in congress will tackle this), but this is not sufficient. There must also be "upstream" action at a subcontinental scale to provide for alternative solutions to over-centralisation.

Within the context of a twelve page paper and a twenty minute intervention during a professional congress, it is obvious that one cannot hope to enter into detail. However the use of a large canvas is justified in order to convince that local or regional action is not enough. Present pressures are too strong, even in a low density situation such as Australia. Medium density parts of the planet, such as West Africa, already have seemingly inextricable problems and beyond these situations there are also the sub-continents of high average human density and in this regard one's attention is drawn to South Asia. This contrast of situations has influenced the choice of the sub-continental entities to be compared.

Sprawl can be considered as having a double cause :

- insufficient action for containing the urbanisation process of a given city but also
- over-concentration of development on a small number of cities.

Action is needed at both of these scales of spatial conception, before the inextricable nature of the problem appears. Over-concentration produces maximum tendency for sprawl, this in turn provoking imbalance with the environment.

This paper concentrates on the sub-continental scale and although the approach is essentially spatial, it is already an element of dialogue with the economists and the politicians.

## **2) Development patterns at a sub-continental scale :** some comparisons between Australia, West Africa and South Asia.

Australia: an island of sub-continental dimensions! For the inhabitants this scale of reality must be taken into account every day. It's the "let's work together" first phase of the Trialogue of last year's Isocarp congress (4) but also the Whiteheadian "(ap)prehension" largely developed in the thesis being prepared by Philippe Vaillant (5). However, comparisons outside Australia are needed in order to insert these elements of debate more clearly into the realities of our planet. Thus, two other geographical entities of comparable physical scale have been chosen to enable some brief comparisons of traditional and modern development patterns.

In this first example, the territory concerned corresponds to a nation of seven federated states plus a federal territory and several far flung islands. The capital cities account for some 60% of the population of most states. All are faced with ecological crises, particularly concerning water. Because of its predominantly dry climate, high temperatures and low density of population (this latter comparable to Canada, Saharan Africa, Mongolia and Siberia) it might be considered to be of marginal interest in solving the problems of the world. However, due to its physical dimensions and the unity in diversity of its system of government, there are lessons to be learned that might well be useful, if not directly applicable, elsewhere. It is the ambition of the paper to make this demonstration. In the pattern of urbanisation one can note the overwhelming predominance of the coastal state capitals developed as trading posts on the periphery of the island continent inhabited by nomadic people during some fifty thousand years. There are major contrasts between the traditional Aboriginal and the Colonial forms of land use because these express the contrasting experiences of decentralised and of centralised governance, the present state capitals reigning over quite vast territories and attracting extensive urbanisation that privileges the individual house on its independent plot of land.

West Africa, as considered here (6), is comprised of 19 sovereign nations with neither official overall boundary nor formal structure of coordination, although there exist various partial groupings for specific purposes. As for Australia, the ancient societies, rooted down into the land, were in deep contrast with the present situation of predominant coastal cities founded as trading posts and transformed into national capitals incorporating mixed ethnic groups. There are cases of unbalanced development and sprawl, with the particular example of Lagos ranking among the great population centres of the world.

South Asia (7) in turn is considered as being made up of 7 sovereign nations with neither official overall boundary nor formal structure of coordination, although as above, there are various partial groupings for specific purposes. Throughout history there has been a variety of motivations for the foundation of the cities and towns: service centres for early agriculture, or capitals of great empires. There are several giant cities as well as their equivalent in terms of human presence, this due to the high average density of population

Table 1 Ref. Atlas François Beautier 2006

| Concise table by sub-continent of examples referred to in this paper |           |               |                  |                                       |  |
|--|-----------|---------------|------------------|---------------------------------------|--|
| Name   | Area km2  | Population    | Inhab per<br>km2 | W.T. N° convivial regions Figs 1 to 4 |  |
| Australia  | 7 700 000 | 20 265 000    | 3                | 98                                    |  |
| Reg.average  | 78 571    | 206 786       |                  |                                       |  |
| West Africa  | 8 201 374 | 290 514 000   | 35               | 86                                    |  |
| Reg.average  | 95 365    | 3 378 069     |                  |                                       |  |
| South Asia   | 5 141 438 | 1 490 727 000 | 290              | 81                                    |  |
| Reg.average  | 63 475    | 18 404 037    |                  |                                       |  |

.The above table expresses the similarities and contrasts between the chosen examples. Let's keep in mind that these are only three among twenty or so sub-continental entities that can be identified in the world, each one deserving detailed study.

The predominant development pattern is that of gigantic coastal cities that encourage over concentration of activities that in turn creates population pressure that triggers sprawl. The tendency is towards this ever increasing concentration of commercial power, political power, then of decision making, inducing an unstoppable snowball effect with the mega city as the inevitable result. So why not complement city and regional attempts to find solutions with efforts to influence the overall development pattern — not necessarily at a planetary scale because this would be at risk of remaining too theoretical — but at the sub-continental scale where real issues of distribution of decision making, jobs, wealth and environmental protection can be tackled?

## 3) Autonomous regions as an alternative to excessive concentration of development :

The quest for alternative solutions.: this is the time for the "keen eye" (4), or the "vision" (5). Within the study territories, initiatives have been taken at the national scale to provide for alternatives to excessive coastal development. These include Delhi, Canberra, Islamabad, Abuja and Yamousoukro, but the equivalent is lacking at the sub-continental scale. Faced with the complexities of bringing together the numerous  $(see\ p.6)$ 

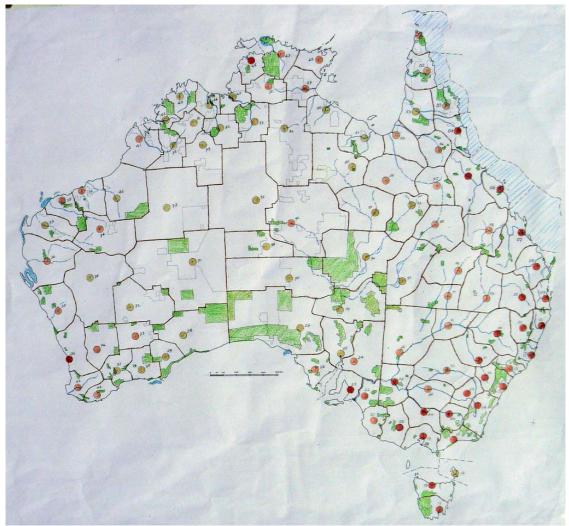


Fig. 1 Potential convivial regions in Australia (sketch of document to be presented at Isocarp congress) W.T.

## Table N°2 **CONVIVIAL REGIONS AUSTRALIA**

Key:

N : New South Wales T : Tasmania NT : Northern Territory V : Victoria

W: Western Australia Q: Queensland

S: South Australia Two letters with "/" indicate cross boundary

region proposed

Population category A: + 100 000
Population category B: 10 000 to 100 000 approx.
Population category C: - 10 000 approx Predominant town: NEWCASTLE

Proposed reference centre: CHARTERS TOWERS Given name for reference centre: "ORANBATH"

| State | No | Name predominant city, town of place  | Р | Situation        |
|-------|----|---------------------------------------|---|------------------|
| N/V   | 64 | ALBURY."WODONBURY"                    | Α | interior div     |
| N     | 62 | BATHURST."ORANBATH"                   | Α | interior div     |
| C/N   | 14 | CANBERRA                              | Α | key / coastal    |
| N     | 61 | DUBBO                                 | Α | interior div     |
| N     | 59 | GLEN INNES                            | Α | interior div     |
| N     | 60 | NARRABRI                              | Α | interior div     |
| N     | 12 | NEWCASTLE. SINGLETON                  | Α | coastal          |
| N     | 11 | PORT MACQUARIE."MACQUARIE"            | Α | coastal          |
| N     | 13 | SYDNEY.PARRAMATTA                     | Α | coastal          |
| N     | 63 | WALLENDBEEN."WALLENDEAN"              | Α | interior div     |
| N     | 10 | YAMBA."BANYABBA"                      | Α | coastal          |
| N     | 91 | BOURKE                                | В | warra-wala       |
| N     | 68 | BROKEN HILL." <b>MENINDEE LAKES</b> " | В | interior div     |
| N     | 92 | EUABALONG."WARRAWAY"                  | В | key / warra-wala |
| N     | 66 | HAY                                   | В | interior div     |
| NT    | 46 | DARWIN HARBOUR*."DARWIN CITY"         | Α | coastal          |
| NT    | 96 | ALICE SPRINGS                         | В | central          |
| NT    | 48 | "ARNHEM"                              | В | coastal          |
| NT    | 80 | KATHERINE                             | В | interior div     |
| NT    | 49 | NGUKURR                               | В | coastal          |
| NT    | 47 | OENPELLI                              | В | coastal          |
| NT    | 50 | BORRALOOLA                            | С | coastal          |
| NT/W  | 97 | MOUNT DOREEN                          | С | central          |
| NT    | 84 | NEWCASTLE WATERS                      | С | key / warra-wala |
| NT    | 83 | VICTORIA RIVER. "YINGAWUNARRI"        | С | warra-wala       |
| NT/W  | 45 | "YAMBARRAN"                           | С | coastal          |
| NT    | 98 | YULARA.CURTIN SPRINGS                 | С | central          |
| Q     | 9  | BRISBANE                              | Α | coastal          |
| Q     | 4  | CAIRNS HARBOUR*."CAIRNS HEIGHTS"      | Α | coastal          |
| Q     | 8  | HERVEY "BAY. "BOONARA"                | Α | coastal          |
| Q     | 6  | MACKAY. "WHITSUN"                     | Α | coastal          |
| Q     | 7  | ROCKHAMPTON                           | Α | key / coastal    |
| Q     | 58 | TOOWOOMBA. "BOOROONDOO"               | Α | interior div     |
| Q     | 5  | TOWNSVILLE.CHARTERS TOWERS            | Α | coastal          |
| •     |    |                                       |   |                  |

| Q         1         BAMAGA         B         coastal           Q         89         CHARLEVILLE         B         warra-wala           Q         86         CLONCURRY         B         warra-wala           Q         90         CUNNAMULA         B         warra-wala           Q         54         EINASLEIGH         B         interior div           Q         55         EMERALD         B         interior div           Q         56         EMERALD         B         interior div           Q         3         LAURA         B         coastal           Q         3         LAURA         B         coastal           Q         52         NORMANTON         B         coastal           Q         52         NORMANTON         B         coastal           Q         2         WEIPA, "ARCHER"         B         coastal           Q/S         34         BIRDSVILLE         C         central           Q/S         39         BUNLA         C         coastal           Q/NT         35         DURBAR         C         coastal           Q         37         WINDORAH."COOPER" <t< th=""><th>ī</th><th></th><th></th><th></th><th></th></t<>   | ī   |    |                               |    |                    |
|--|-----|----|-------------------------------|----|--------------------|
| Q         86         CLONCURRY         B         warra-wala           Q         90         CUNNAMULLA         B         warra-wala           Q         54         EINASLEIGH         B         interior div           Q         56         EMERALD         B         interior div           Q         55         HUGHENDEN         B         interior div           Q         3         LAURA         B         coastal           Q         88         LONGREACH         B         warra-wala           Q         20         NORMANTON         B         coastal           Q         57         SAINT GEORGE         B         interior div           Q         9         BIRDSVILLE         C         central           QYS         94         BIRDSVILLE         C         contral           QYS         95         BOULIA         C         coastal           QYS         96         BURKETOWN DOOMADGEE         C         coastal           QYNT         85         CAMOOWEAL         C         warra-wala           Q         93         WINDORAH."COOPER"         C         coastal           Q         93   | Q   | 1  | BAMAGA                        | В  | coastal            |
| Q         90         CUNNAMULLA         B         warra-wala           Q         54         EINASLEIGH         B         interior div           Q         56         EMERALD         B         interior div           Q         55         HUGHENDEN         B         interior div           Q         35         LAURA         B         coastal           Q         52         NORMANTON         B         coastal           Q         52         NORMANTON         B         coastal           Q         57         SAINT GEORGE         B         interior div           Q         2         WEIPA. "ARCHER"         B         coastal           Q/S         94         BIRDSVILLE         C         central           Q         95         BOULIA         C         central           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         52         AMOOWEAL         C         warra-wala           Q         53         JUBAR         C         coastal           Q/NT         52   | Q   | 89 | CHARLEVILLE                   | В  | warra-wala         |
| Q         54         EINASLEIGH         B         interior div           Q         56         EMERALD         B         interior div           Q         55         HUGHENDEN         B         interior div           Q         3         LAURA         B         coastal           Q         88         LONGREACH         B         warra-wala           Q         52         NORMANTON         B         coastal           Q         57         SAINT GEORGE         B         interior div           Q         57         SAINT GEORGE         B         interior div           Q         9         BIRDSVILLE         C         coentral           Q         95         BOULIA         C         central           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         53         DUNBAR         C         coastal           Q/NT         53         DUNBAR         C         coastal           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           S  | Q   | 86 | CLONCURRY                     | В  | warra-wala         |
| Q         56         EMERALD         B         interior div           Q         55         HUGHENDEN         B         interior div           Q         3         LAURA         B         coastal           Q         38         LONGREACH         B         warra-wala           Q         52         NORMANTON         B         coastal           Q         95         SINT GEORGE         B         interior div           Q         95         SUNDTAL         C         central           QYS         94         BIRDSVILLE         C         coastal           QYS         95         BOULIA         C         central           QYNT         85         CAMOOWEAL         C         coastal           QYNT         85         CAMOOWEAL         C         coastal           Q         87         WINTON. "DIAMANTINA"  | Q   | 90 | CUNNAMULLA                    | В  | warra-wala         |
| Q         56         EMERALD         B         interior div           Q         55         HUGHENDEN         B         interior div           Q         3         LAURA         B         coastal           Q         88         LONGREACH         B         warra-wala           Q         57         SAINT GEORGE         B         interior div           Q         2         WEIPA. "ARCHER"         B         coastal           Q/S         94         BIRDSVILLE         C         central           Q/S         94         BIRDSVILLE         C         central           Q/YT         15         BURKETOWN.DOOMADGEE         C         coastal           Q/YT         85         CAMOOWEAL         C         warra-wala           Q         93         WINDORAH. "COOPER"         C         coastal           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S/Y         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S </td <td>Q</td> <td>54</td> <td>EINASLEIGH</td> <td>В</td> <td>interior div</td>                        | Q   | 54 | EINASLEIGH                    | В  | interior div       |
| Q         55         HUGHENDEN         B         interior div           Q         3         LAURA         B         coastal           Q         88         LONGREACH         B         warra-wala           Q         52         NORMANTON         B         coastal           Q         57         SAINT GEORGE         B         interior div           Q         2         WEIPA. "ARCHER"         B         coastal           Q/S         94         BIRDSVILLE         C         central           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         55         CAMOOWEAL         C         warra-wala           Q         53         DUNBAR         C         coastal           Q         93         WINDON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         23         ADELAIDE         A         coastal           S         24         PETERBOROUGH         B         coastal           S <td< td=""><td>_</td><td>56</td><td>EMERALD</td><td>В</td><td>interior div</td></td<>                                  | _   | 56 | EMERALD                       | В  | interior div       |
| Q   3  |     | 55 | HUGHENDEN                     | В  | interior div       |
| Q         88         LONGREACH         B         warra-wala           Q         52         NORMANTON         B         coastal           Q         2         WEIPA. "ARCHER"         B         coastal           Q/S         94         BIRDSVILLE         C         central           Q/S         94         BIRDSVILLE         C         central           Q/S         94         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         53         DUNBAR         C         coastal           Q         93         WINDORAH. "COOPER"         C         central           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S  | _   |    |                               | _  |                    |
| Q         52         NORMANTON         B         coastal           Q         57         SAINT GEORGE         B         interior div           Q         2         WEIPA. "ARCHER"         B         coastal           Q/S         94         BIRDSVILLE         C         central           Q         95         BOULIA         C         central           Q         95         BOULIA         C         central           Q/NT         85         CAMOOWEAL         C         coastal           Q/NT         85         CAMOOWEAL         C         coastal           Q         93         WINDORAH. "COOPER"         C         coastal           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         23         ADELAIDE         A         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S <td></td> <td></td> <td></td> <td></td> <td></td>  |     |    |                               |    |                    |
| Q   57   SAINT GEORGE   B   interior div   |     |    |                               | _  |                    |
| Q         2         WEIPA. "ARCHER"         B         coastal           Q/S         94         BIRDSVILLE         C         central           Q         95         BOULIA         C         central           Q/NT         51         BURKETOWN.DOOMADGEE         C         coastal           Q/NT         85         CAMOOWEAL         C         warra-wala           Q         53         DUNBAR         C         coastal           Q         93         WINDORAH. "COOPER"         C         central           Q         87         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER NARACOORTE         B         coastal           S/V         21         MOUNT GAMBIER NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         27         TAILEM BEND MOORLANDS         B         coastal           S         27         TARCOOLA         C         interior div  |     |    |                               | _  |                    |
| Q/S         94         BIRDSVILLE         C central           Q         95         BOULIA         C central           Q/NT         51         BURKETOWN.DOOMADGEE         C coastal           Q/NT         85         CAMOOWEAL         C warra-wala           Q         53         DUNBAR         C coastal           Q         93         WINDON.**COOPER"         C central           Q         87         WINTON.**DIAMANTINA"         C key / warra-wala           S         23         ADELAIDE         A coastal           S         26         LOCK         B coastal           S         26         LOCK         B coastal           S         26         LOCK         B coastal           S         21         MOUNT GAMBIER.**NARACOORTE         B coastal           S         24         PETERBOROUGH         B coastal           S         24         PETERBOROUGH         B coastal           S         27         TALLEM BEND,MOORLANDS         B coastal           S         27         TAREGOLA         C interior div           S         25         PORT AUGUSTA         C coastal           S         25         PORT AUGUST   |     |    |                               |    |                    |
| Q         95         BOULIA         C central           Q/NT         51         BURKETOWN.DOOMADGEE         C coastal           Q/NT         85         CAMOOWEAL         C warra-wala           Q         93         WINDORAH. "COOPER"         C central           Q         93         WINDORAH. "COOPER"         C central           Q         87         WINTON. "DIAMANTINA"         C key / warra-wala           S         23         ADELAIDE         A coastal           S         23         ADELAIDE         A coastal           S         26         LOCK         B coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B coastal           S         24         PETERBOROUGH         B coastal           S         24         PETERBOROUGH         B coastal           S         27         ALLEM BEND.MOORLANDS         B coastal           S         27         ALREM EYER CITY"         C key / interior div           S         25         PORT AUGUSTA         C coastal           S         27         TARCOOLA         C coastal           T   |     |    |                               |    |                    |
| Q/NT         51         BURKETOWN.DOOMADGEE         C coastal           Q/NT         85         CAMOOWEAL         C warra-wala           Q         53         DUNBAR         C contral           Q         93         WINDORAH. "COOPER"         C central           Q         87         WINTON. "DIAMANTINA"         C key / warra-wala           S         23         ADELAIDE         A coastal           S         26         LOCK         B coastal           S // 21         MOUNT GAMBIER.NARACOORTE         B coastal           S // 22         TAILEM BEND.MOORLANDS         B coastal           S 22         TAILEM BEND.MOORLANDS         B coastal           S 70         MARLA         C interior div           S 69         MARREE. "LAKE EYRE CITY"         C key / interior div           S 25         PORT AUGUSTA         C coastal           S 27         TARCOOLA         C coastal           T 17         DEVONPORT. "DEVONTON"         A coastal           T 18         HOBART         A coastal           V 20         ARARAT         A coastal           V 15         BAIRNSDALE         A coastal           V/N 65         ECHUCA         A interior div </td <td></td> <td></td> <td></td> <td>-</td> <td></td> |     |    |                               | -  |                    |
| Q/NT         85         CAMOOWEAL         C         warra-wala           Q         53         DUNBAR         C         coastal           Q         93         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         24         PETERBOROUGH         B         coastal           S         70         MARLA         C         interior div           S         70         MARLA         C         interior div           S         70         MARLA         C         interior div           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           V         20         <  |     |    |                               | _  |                    |
| Q         53         DUNBAR         C         coastal           Q         93         WINDORAH. "COOPER"         C         central           Q         87         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         27         TAILEM BEND.MOORLANDS         B         coastal           S         27         TAILEM BEND.MOORLANDS         B         coastal           S         27         TARGUBLA         C         interior div           S         29         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal      <   |     | _  |                               | _  |                    |
| Q         93         WINDORAH. "COOPER"         C         central           Q         87         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S         26         LOCK         B         coastal           S         26         LOCK         B         coastal           S         26         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         27         TAILEM BEND.MOORLANDS         B         coastal           S         26         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           T         18         HOBART         A         coastal           V <td></td> <td></td> <td></td> <td>-</td> <td></td>   |     |    |                               | -  |                    |
| Q         87         WINTON. "DIAMANTINA"         C         key / warra-wala           S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         22         TAILEM BEND.MOORLANDS         B         coastal           S         70         MARLA         C         interior div           S         69         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           T         18         HOBART         A         coastal           T         16         LADY BARRON         C         coastal           V         20         ARARAT         A         coastal           V/N <td>_</td> <td></td> <td></td> <td>_</td> <td>_</td>  | _   |    |                               | _  | _                  |
| S         23         ADELAIDE         A         coastal           S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         22         TAILEM BEND.MOORLANDS         B         coastal           S         70         MARLA         C         interior div           S         69         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         69         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         26         PORT AUGUSTA         C         coastal           T         16         LADY BARRON         C         coastal  | Q   | 93 | WINDORAH. "COOPER"            |    | central            |
| S         26         LOCK         B         coastal           S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         22         TAILEM BEND.MOORLANDS         B         coastal           S         70         MARLA         C         interior div           S         69         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           T         18         HOBART         A         coastal           V         20         ARARAT         A         coastal           V         20         ARARAT         A         coastal           V/N         65         ECHUCA         A         interior div           V         19         MELBOURNE         A         coastal           V/N  |     |    |                               | С  | key / warra-wala   |
| S/V         21         MOUNT GAMBIER.NARACOORTE         B         coastal           S         24         PETERBOROUGH         B         coastal           S         22         TAILEM BEND.MOORLANDS         B         coastal           S         70         MARLA         C         interior div           S         69         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           T         18         HOBART         A         coastal           T         16         LADY BARRON         C         coastal           V         20         ARARAT         A         coastal           V         15         BAIRNSDALE         A         coastal           V/N         65         ECHUCA         A         interior div           V         19         MELBOURNE         A         coastal           V/N         67         MILDURA         A         interior div           W  | S   | 23 | ADELAIDE                      | Α  | coastal            |
| S         24         PETERBOROUGH         B         coastal           S         22         TAILEM BEND.MOORLANDS         B         coastal           S         70         MARLA         C         interior div           S         69         MARREE. "LAKE EYRE CITY"         C         key / interior div           S         25         PORT AUGUSTA         C         coastal           S         27         TARCOOLA         C         coastal           T         17         DEVONPORT. "DEVONTON"         A         coastal           T         18         HOBART         A         coastal           T         16         LADY BARRON         C         coastal           V         20         ARARAT         A         coastal           V         15         BAIRNSDALE         A         coastal           V/N         65         ECHUCA         A         interior div           V         19         MELBOURNE         A         coastal           V/N         67         MILDURA         A         interior div           W         34         PERTH         A         coastal           W         35  | S   | 26 | LOCK                          | В  | coastal            |
| S 22 TAILEM BEND.MOORLANDS B coastal S 70 MARLA C interior div S 69 MARREE. "LAKE EYRE CITY" C key / interior div S 25 PORT AUGUSTA C coastal S 27 TARCOOLA C coastal T 17 DEVONPORT. "DEVONTON" A coastal T 18 HOBART A coastal T 16 LADY BARRON C coastal V 20 ARARAT A coastal V 15 BAIRNSDALE A coastal V/N 65 ECHUCA A interior div V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 34 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 74 MERREDIN B interior div W 74 MERREDIN B key / interior div  | S/V | 21 | MOUNT GAMBIER. NARACOORTE     | В  | coastal            |
| S 70 MARLA C interior div S 69 MARREE. "LAKE EYRE CITY" C key / interior div S 25 PORT AUGUSTA C coastal S 27 TARCOOLA C coastal T 17 DEVONPORT. "DEVONTON" A coastal T 18 HOBART A coastal V 20 ARARAT A coastal V 15 BAIRNSDALE A coastal V/N 65 ECHUCA A interior div V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 37 KALGOORLIE B key / interior div W 74 MERREDIN W 76 NEWMAN B key / interior div   | S   | 24 | PETERBOROUGH                  | В  | coastal            |
| S       69       MARREE. "LAKE EYRE CITY"       C       key / interior div         S       25       PORT AUGUSTA       C       coastal         S       27       TARCOOLA       C       coastal         T       17       DEVONPORT. "DEVONTON"       A       coastal         T       18       HOBART       A       coastal         T       16       LADY BARRON       C       coastal         V       20       ARARAT       A       coastal         V/N       65       ECHUCA       A       interior div         V       19       MELBOURNE       A       coastal         V/N       67       MILDURA       A       interior div         W       34       PERTH       A       coastal         W       32       ALBANY.MOUNT BARKER       B       coastal         W       33       BRIDGETOWN       B       coastal         W       36       CARNARVON.GASCOYNE JUNCTION       B       coastal         W       35       GERALDTOWN.MULLEWA       B       coastal         W       73       KALGOORLIE       B       key / interior div         W       76<   | S   | 22 | TAILEM BEND. <b>MOORLANDS</b> | В  | coastal            |
| S 25 PORT AUGUSTA C coastal S 27 TARCOOLA C coastal T 17 DEVONPORT. "DEVONTON" A coastal T 18 HOBART A coastal T 16 LADY BARRON C coastal V 20 ARARAT A coastal V 15 BAIRNSDALE A coastal V/N 65 ECHUCA A interior div V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 37 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  | S   | 70 | MARLA                         | С  | interior div       |
| S 27 TARCOOLA C coastal  T 17 DEVONPORT. "DEVONTON" A coastal  T 18 HOBART A coastal  T 16 LADY BARRON C coastal  V 20 ARARAT A coastal  V/N 65 ECHUCA A interior div  V 19 MELBOURNE A coastal  V/N 67 MILDURA A interior div  W 34 PERTH A coastal  W 32 ALBANY.MOUNT BARKER B coastal  W 33 BRIDGETOWN B coastal  W 41 BROOME. "MOUNT CLARKSON" B coastal  W 36 CARNARVON.GASCOYNE JUNCTION B coastal  W 37 GERALDTOWN.MULLEWA B coastal  W 78 KALGOORLIE B key / interior div  W 74 MERREDIN B interior div  W 76 NEWMAN B key / interior div  | S   | 69 | MARREE. "LAKE EYRE CITY"      | С  | key / interior div |
| T         17         DEVONPORT. "DEVONTON"         A coastal           T         18         HOBART         A coastal           T         16         LADY BARRON         C coastal           V         20         ARARAT         A coastal           V         15         BAIRNSDALE         A coastal           V/N         65         ECHUCA         A interior div           V         19         MELBOURNE         A coastal           V/N         67         MILDURA         A interior div           W         34         PERTH         A coastal           W         32         ALBANY.MOUNT BARKER         B coastal           W         33         BRIDGETOWN         B coastal           W         41         BROOME. "MOUNT CLARKSON"         B coastal           W         36         CARNARVON.GASCOYNE JUNCTION         B coastal           W         38         DAMPIER. "HAMERSLEY"         B coastal           W         35         GERALDTOWN.MULLEWA         B coastal           W         73         KALGOORLIE         B key / interior div           W         74         MERREDIN         B interior div   | S   | 25 | PORT AUGUSTA                  | С  | coastal            |
| T         17         DEVONPORT. "DEVONTON"         A coastal           T         18         HOBART         A coastal           T         16         LADY BARRON         C coastal           V         20         ARARAT         A coastal           V         15         BAIRNSDALE         A coastal           V/N         65         ECHUCA         A interior div           V         19         MELBOURNE         A coastal           V/N         67         MILDURA         A interior div           W         34         PERTH         A coastal           W         32         ALBANY.MOUNT BARKER         B coastal           W         33         BRIDGETOWN         B coastal           W         41         BROOME. "MOUNT CLARKSON"         B coastal           W         36         CARNARVON.GASCOYNE JUNCTION         B coastal           W         38         DAMPIER. "HAMERSLEY"         B coastal           W         35         GERALDTOWN.MULLEWA         B coastal           W         73         KALGOORLIE         B key / interior div           W         74         MERREDIN         B interior div   | S   | 27 | TARCOOLA                      | С  | coastal            |
| T         18         HOBART         A         coastal           T         16         LADY BARRON         C         coastal           V         20         ARARAT         A         coastal           V         15         BAIRNSDALE         A         coastal           V/N         65         ECHUCA         A         interior div           V         19         MELBOURNE         A         coastal           V/N         67         MILDURA         A         interior div           W         34         PERTH         A         coastal           W         32         ALBANY.MOUNT BARKER         B         coastal           W         33         BRIDGETOWN         B         coastal           W         41         BROOME. "MOUNT CLARKSON"         B         coastal           W         36         CARNARVON.GASCOYNE JUNCTION         B         coastal           W         35         GERALDTOWN.MULLEWA         B         coastal           W         73         KALGOORLIE         B         key / interior div           W         74         MERREDIN         B         interior div           W <t< td=""><td></td><td>17</td><td>DEVONPORT. "DEVONTON"</td><td>Α</td><td>coastal</td></t<>                          |     | 17 | DEVONPORT. "DEVONTON"         | Α  | coastal            |
| T         16         LADY BARRON         C         coastal           V         20         ARARAT         A         coastal           V         15         BAIRNSDALE         A         coastal           V/N         65         ECHUCA         A         interior div           V         19         MELBOURNE         A         coastal           V/N         67         MILDURA         A         interior div           W         34         PERTH         A         coastal           W         32         ALBANY.MOUNT BARKER         B         coastal           W         33         BRIDGETOWN         B         coastal           W         41         BROOME. "MOUNT CLARKSON"         B         coastal           W         36         CARNARVON.GASCOYNE JUNCTION         B         coastal           W         38         DAMPIER. "HAMERSLEY"         B         coastal           W         35         GERALDTOWN.MULLEWA         B         key / interior div           W         74         MERREDIN         B         interior div           W         76         NEWMAN         B         key / interior div   | Т   | 18 |                               | Α  | coastal            |
| V 20 ARARAT A coastal V 15 BAIRNSDALE A coastal V/N 65 ECHUCA A interior div V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 37 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     |    |                               |    |                    |
| V 15 BAIRNSDALE A coastal V/N 65 ECHUCA A interior div V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 37 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div   |     |    |                               |    |                    |
| V/N 65 ECHUCA A interior div V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     |    |                               |    |                    |
| V 19 MELBOURNE A coastal V/N 67 MILDURA A interior div  W 34 PERTH A coastal  W 32 ALBANY.MOUNT BARKER B coastal  W 33 BRIDGETOWN B coastal  W 41 BROOME. "MOUNT CLARKSON" B coastal  W 36 CARNARVON.GASCOYNE JUNCTION B coastal  W 38 DAMPIER. "HAMERSLEY" B coastal  W 35 GERALDTOWN.MULLEWA B coastal  W 73 KALGOORLIE B key / interior div  W 74 MERREDIN B interior div  W 76 NEWMAN B key / interior div   | _   | _  |                               |    |                    |
| V/N       67       MILDURA       A interior div         W       34       PERTH       A coastal         W       32       ALBANY.MOUNT BARKER       B coastal         W       33       BRIDGETOWN       B coastal         W       41       BROOME. "MOUNT CLARKSON"       B coastal         W       36       CARNARVON.GASCOYNE JUNCTION       B coastal         W       38       DAMPIER. "HAMERSLEY"       B coastal         W       35       GERALDTOWN.MULLEWA       B coastal         W       73       KALGOORLIE       B key / interior div         W       74       MERREDIN       B interior div         W       76       NEWMAN       B key / interior div  |     |    |                               |    |                    |
| W 34 PERTH A coastal W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     |    |                               |    |                    |
| W 32 ALBANY.MOUNT BARKER B coastal W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div   |     |    | DERTH                         |    |                    |
| W 33 BRIDGETOWN B coastal W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     |    |                               |    |                    |
| W 41 BROOME. "MOUNT CLARKSON" B coastal W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     | _  |                               |    |                    |
| W 36 CARNARVON.GASCOYNE JUNCTION B coastal W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     |    |                               | _  |                    |
| W 38 DAMPIER. "HAMERSLEY" B coastal W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div   |     |    |                               | _  |                    |
| W 35 GERALDTOWN.MULLEWA B coastal W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div   |     |    |                               | _  |                    |
| W 73 KALGOORLIE B key / interior div W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div   |     |    |                               | _  |                    |
| W 74 MERREDIN B interior div W 76 NEWMAN B key / interior div  |     |    |                               | _  |                    |
| W 76 NEWMAN B key / interior div   |     | _  |                               |    | -                  |
|  | W   | 74 | MERREDIN                      | В  |                    |
| W 39 PORT HEDLAND. " <b>HEDLAND</b> " B coastal  | W   | 76 | NEWMAN                        | В  | key / interior div |
|  | W   | 39 | PORT HEDLAND. "HEDLAND"       | В. | coastal            |

| i    |    |                                  |   |                  |
|------|----|----------------------------------|---|------------------|
| W    | 43 | "ARAWARI"                        | С | coastal          |
| W    | 29 | BALLADONIA                       | С | coastal          |
| W    | 40 | "CARAWINE"                       | С | coastal          |
| W    | 30 | ESPERANCE PORT*."ESPERANCE CITY" | С | coastal          |
| W    | 78 | FITZROY CROSSING                 | С | interior div     |
| W    | 79 | HALL'S CREEK                     | С | interior div     |
| W    | 77 | "KUNAWARRITJI"                   | С | interior div     |
| W    | 44 | KUNUNURRA. "WYNDHAM HEIGHTS"     | С | coastal          |
| W    | 31 | LAKE KING                        | С | coastal          |
| W    | 72 | LEONORA                          | С | interior div     |
| W    | 75 | MEEKATHARRA                      | С | interior div     |
| W    | 37 | ONSLOW.NANUTARRA                 | С | coastal          |
| W/NT | 82 | "ORDVILLE"                       | С | warra-wala       |
| W    | 28 | RAWLINNA                         | С | coastal          |
| W    | 81 | "WALADJADARI"                    | С | key / warra-wala |
| W    | 42 | "WALCOTT"                        | С | coastal          |
| W    | 71 | WARBURTON. "NGAANYATJARRAKU"     | С | interior div     |

sovereign nations involved in most parts of the world, the case of Australia could be of some interest from a methodological point of view. The sketch map and table included above represent a theoretical approach to definition and designation of viable regions, with a regional capital as first rampart against mega city sprawl. They are the result of personal research spread out over a certain number of years (1), as well as of visits to numerous sites throughout Australia, but they engage only the author and in no way are involved with official policy at the various levels of government.

Some of the place names refer to a spot on the sunburnt bare ground, but for every one there is real potential due to its position within a given "boundary". One can imagine some 98 potentially autonomous regions... Could these be the building blocks for the future of the nation.

The regions would have sufficient autonomy to group together in diverse fashions to deal with shared preoccupations such as : coastal interests (desalination of water, port facilities, outside trade...); key continental transport services; resolution of previous state affairs; management of water catchment areas.

The whole represents a network of "comfortable" cities (2) with characteristics adapted to their place under the sun, each conceived and built in harmony with its specific regional environment, each one probably radically different from the present predominant urban forms.

In the present absence of an explanatory key to the preliminary sketch map included here (Fig.1), it needs to be mentioned that each point of colour implies a category of population level and therefore of aptitude to be designated as an autonomous, convivial, region. They do not represent an exact scale of the existing population, major cities being given the same importance as the smaller, so as to allow the true potential to become apparent...

#### 4) The role of major infrastructures at an adequate scale

Such a vision would remain highly theoretical unless the means could be found to put these regions on the map - a complex procedure, which could be initiated by imagining the amelioration of links between the parts of the territory concerned. It is time to talk about "user's tools" (4) or "proposition" (5).

But once again, let's be quite clear: the following maps have no official status and engage only the author as research material. While they have no pretension of being master plans for vast territories, they do, nevertheless have the pretension of tackling questions that

need to be introduced into a debate about urban sprawl. Included below is a sketch map for each of the three sub-continental entities.

For Australia (Fig.2), the essential element of the map is the trajectory for a multiple infrastructure linking the south-east of the territory to the north-west, the two reference points being "Warraway" on the Lachlan river and "Waladjadari" in the Kimberlies. Part of this is already an established itinerary and it could be envisaged that the pieces be brought together over time so as to create a coherent whole. To avoid any triumphalism, it is referred to as a "trail" and the diminutive name of "Warrawala" is adopted. It would be destined to serve the semi-fertile territory between its itinerary and the northern and eastern coastlines, as well as being a potentially strong axis to serve the inland regions. As a coordinated itinerary of essential services, it would be destined to include rail and urban water as priorities, then road, electricity, gas, multimedia... We should be reminded that earlier projects of similar scale provoked national debate, referring thus to the first north-south telegraph line, the Indian-Pacific standard rail track as well as the north-south Ghan line.

The case of Australia is highly pertinent in that the territory is under the jurisdiction of a single national government, whereas the other territories chosen as examples, although forming coherent entities at a similar scale, concern independent and sometimes hostile nations. They also have much higher levels of population, implying that any action would be much more difficult to envisage, while maintaining hope of follow through. It is nevertheless highly desirable to seek a vision of the whole.

The sketch of West Africa (Fig.3) invokes the need for reinforced coastal infrastructure, to balance established maritime and air links with Europe, but also an important infrastructure itinerary from the western coastlines along the Sahel belt and beyond to Egypt and the Middle East, thus creating a series of bastions against (cf p.9)

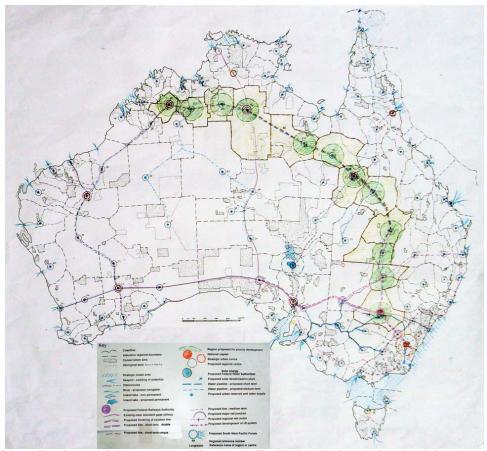


Fig.2 Australia : key regions and the "Warrawala Trail" (preliminary sketch of document to be presented at Isocarp congress) W.T.

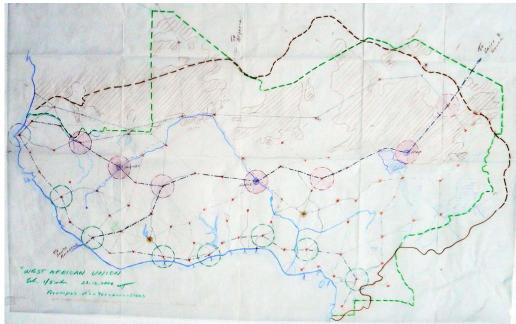


Fig. 3 West Africa : structuring the Sahel sand barrier (preliminary sketch of document to be presented at Isocarp congress) W.T.

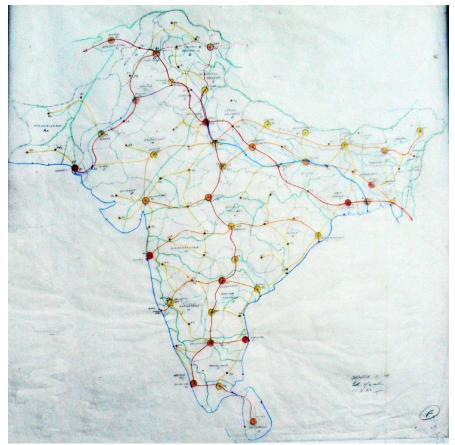


Fig. 4 South Asia : multiple means of access to the inland (preliminary sketch of document to be presented at Isocarp congress) W.T.

the process of desertification from the north. The Niger and Chad basins call for study and management as single entities.

In South Asia (Fig.4), both the Ganges and the Indus valleys pose the questions of need and potential for heavy transport of raw materials and industrial production from and to the world market, their trajectories being the references for coordinated complementary infrastructure. Also, a rapid and heavy duty rail line from north to south with branch lines, would enable sharing of the benefits of commercial and industrial development between the coastal cities and the regions of the interior. The target is a balance between coastal and inland development, through design and implementation of specific national and regional projects.

However, even if an overall, static vision is possible, there is also need for implementation strategies and, once again the case of Australia can serve as a potter's wheel to experiment a form to follow. That is the role of the following section of this paper

## 5) Priorities enabling balanced development : the case of Australia

Time and space not permitting within the context of Congress, this chapter limits itself once again to the particular case of Australia. Within this example a long process of research has been summarised in Table N°3 included below, much too concise to be diplomatically correct, but attempting to demonstrate the necessary transition from a federation of seven states (plus a capital and island territories), to a federation of convivial regions: a process giving time its full part to play! We are now in "the arena of interests" (4), or that of "(satisf)action" (5)

The intended outcome is that of a federation of the 98 "convivial regions" of Table N°2, having equal status before the federal government, located primarily in Canberra but with significant federal agencies in other parts of the territory, notably the conveniently located agency for standard continental railways at "Warraway" and also federal agencies for water and for solar energy at the outrageous, but highly symbolic, site of "Lake Eyre City" (where one encounters the extremes of shortage of water and plenitude of sunshine!).

The distribution of responsibilities throughout the regions will avoid over concentration of development in the existing major cities that are already provoking considerable ecological stress. The concept is less rooted into Colonial practices than into Aboriginal practices ensuring overall distribution of habitat throughout the whole of the territory. (see p.10)

 $\label{eq:Table N 3:} \textbf{Table N 3:}$  Table of phases for inauguration of autonomous regions: demonstration of procedure

Date: 20080417 (For given names: "xxx", see Table 2,

| Ph. | Phases to be envisaged   | Autonomous regions | Cumul<br>regions | States | Senate<br>Rep'n |
|-----|--|--------------------|------------------|--------|-----------------|
| 1   | Designation of centres and boundaries for future autonomous "convivial regions" with special mention of 9 "Key" regions (Canberra, "Warraway", "Lake Eyre City", Kalgoorlie, Newman, "Waladjadari", "Newcastle Waters", "Diamantina" and Rockhampton) as well as 12 "Warrawala Trail" regions ("Warraway", Bourke, Cunnamulla, Charleville, Longreach, "Diamantina", Cloncurry, Camooweal, Newcastle Waters, "Yingawunarri", "Ordville" and "Waladjadari").Installation of embryonic regional government institutions in each of the designated centres. | 0                  | 0                | 7      | 7               |
| 2   | Separation of Canberra region from NSW and fusion of this region with ACT to create first autonomous region.   | plus 1             | 1                | 7      | 8               |

| 3  | Separation of each state capital region from its corresponding existing state, with temporary sharing of existing facilities.   | plus 7  | 8  | 7               | 15 |
|----|---|---------|----|-----------------|----|
| 4  | Foundation of highly symbolic Federal "Water Management" and "Solar Energy" Agencies at the site of "Lake Eyre City" near Marree, beside Lake Eyre South. Ambition of renewable energy and water resource for all regional centres.   | 0       | 8  | 7               | 15 |
| 5  | Designation of "Warrawala" multiple infrastructure axis. (rail, water, electricity, gas, road). Beginning of work on priority rail sections: Lake Cargellico to Cunnamulla (142 cm gage), Charleville to Blackall (107 cm), Winton to "Diamantina" (107cm), Newcastle Waters to "Ordville" (142cm). Installation of 142cm gage HQ at Euabalong / "Warraway" and 107cm gage HQ at Longreach. | 0       | 8  | 7               | 15 |
|    | Wallaway and 1076111 gage fix at Longreach.   | O       |    | '               | 10 |
| 6  | Autonomy of all Category A1 regions, already satisfying agreed criteria for population (more than 100 000) and development.   | plus 6  | 14 | 7               | 21 |
| 7  | Autonomy of Category A2 regions having attained agreed criteria.  | plus 14 | 28 | (- Vic)<br>6    | 34 |
| 8  | Transfer of remaining State functions to new locations: NSW to "Warraway" SA and Tasmania (Lady Barron) to Port Augusta WA to Kalgoorlie NT to Newcastle Waters Q to "Diamantina"   |         |    |                 |    |
|    | Period of transition with regionalised management in liaison with Federal government.   | 0       | 28 | (-Tas)<br>5     | 33 |
| 9  | Development and population thresholds attained for remaining "Key" regions: "Warraway", "Lake Eyre City", Kalgoorlie, Newman, "Waladjadari", Newcastle Waters, "Diamantina". Progressive inauguration of corresponding autonomous regions.  | plus 7  | 35 | 5               | 40 |
| 10 | Development and population thresholds attained for remaining "Warrawala" regions: Bourke, Cunnamulla, Charleville, Longreach, Cloncurry, Camooweal, "Yingawunarri", "Ordville". Corresponding inauguration of autonomous regions.   | plus 8  | 43 | 5               | 48 |
| 11 | Autonomy criteria attained for remaining category B regions. B1:15 and B2:13. Corresponding inauguration of autonomous regions.   | plus 28 | 71 | 5               | 76 |
| 12 | Autonomy criteria attained for remaining category C regions. C1:13 and C2:14. Corresponding inauguration of autonomous regions.   | plus 27 | 98 | (-other states) | 98 |

It is important to enter into such an evolutionary process so as to gradually assume all aspects of the changes. The basis for an alternative future will not be laid until all 98 regions

will have entered into the Federal Senate and the last states devolved. Could bets be laid on the last region to enter?!

Study of the question of transfer of the reduced state capital functions towards provisional inland centres at a given moment in the mutation process would need particular attention.

By entering into such a process, attenuation of mega city production and consequent sprawl would be immediate, so provoking a fundamental change of attitude towards the territory and to the way of dealing with problems that are specific to the land! The 53 coastal regions have the advantages of a potential seaport and water desalinisation plant. Some interior regions already have rail (with some standard gage) but others need significant new transport links, plus a guarantied supply of carefully managed urban water!

Could Australia thus develop a method, open a way for sub-continental regions of similar dimensions in the world, so that the inhabitants might work together in peace, creating viable, liveable cities within regions of lasting ecological balance, contributing to the long-term health of the planet?

Politically, it is obvious that the question must be posed of how to put into motion such a process while avoiding social chaos, economic stress and the danger of an exaggerated pulsar effect due to short government mandates. Would constitutional change enable programming as a whole?

The reduction of the role of the primitive states would liberate the path towards agreements on ad hoc grouping of regions with common interests: the 53 coastal regions; regions of the major river basins; regions of the replaced state divisions; regions of the major infrastructure axes...

The overall effect could be considered as being a path towards sustainable urbanisation.

As was the case during several tens of thousands of years, we would be finally allowing the specific nature of the land to play fully its part in our lives, letting ourselves be moulded by the land, converging with the long experience of the Aboriginal people, sharing their consciousness of links with the land, that is the source of the specific ethos of Australia. With such links assured, modern Australia could never be an imitation of the diverse cultures of origin of its immigrant population. It's by going out from the big cities into the land that we can recognise who we are and how we can relate to the outside world in a specific way. This matter concerns the most recent and even the future migrants who have chosen to come here to live and to take part in a common experience, in a common effort, taking part in world affairs in a way that expresses a specific point of view.

## 6) Conclusions : potential fruits of concerted transformations

The two scales of conception and of action, sub-continental and regional, are complementary. In Australia they seriously question the predominant role of the existing states and, elsewhere in the world, even that of many existing national entities.

The concept calls for a role of real responsibility for the regional population, in contrast to armchair management of world affairs from a few mega cities.

There would be significant advantages in the creation of new sub-continental political entities, facilitating :

- the avoidance "upstream" of sprawl in component regions.
- water management in harmony with each water catchment area
- reduced ecological pressure on existing highly urbanised regions
- spontaneous distribution of migrant populations throughout a whole territory instead of extreme concentration in existing large cities
- maximum responsibilities for regional governments. (subsidiarity, devolution)

As for regional action, the need remains. Slotted into an overall pattern in which regional entities could hope to reach fulfilment, it is in fact in regions conceived and developed at this scale that many of the serious problems facing the planet could be tackled correctly and perhaps even be solved. However, political will is fundamental in order to

liberate the real possibility of development of a multitude of responsible and balanced human settlements – without sprawl.

At the regional scale, several key factors need to be identified and taken into account:

- imaginative assessment of the material reality and potential
- appreciation of human realities and perspectives
- protection of the natural environment and encouragement of accessible food production : we are all called upon to become good regional gardeners...
- renewable regional energy production : solar, wind, falling water, wave and tide
- a creative regional economy (3)
- creation of neighbourhoods adapted to climatic conditions, including semi-troglodyte, cooling-tower and covered walkway architecture adapted to hot climate areas
- choice of densities;
- adapted public transport;
- accessible regional governance, optimum regional autonomy.
  - ...and tangible conviviality!

But - an essential question remains : how to channel the vitality of the global economy into such regional living spaces ? Are we condemned to climb over each other in just a few mega-cities in which riches have been amassed and where too many crucial decisions are made ?

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- 2. Isocarp Congress 2004 Management of urban regions
- 3. Isocarp Congress, 2005, Making spaces for the creative economy
- 4. Isocarp Congress 2007, *Urban trialogues*
- 5. Vaillant, Philippe, 2008, *L'expérience territoriale éclairée par la pensée d'A.N.Whitehead,* Thesis in preparation, Université de Nancy II.

#### Notes:

- 6. West Africa in this paper refers to the following nations: Benin, Burkina Faso, Cameroon, Equatorial Guinea, Gambia, Ghana, Guinea Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal, Togo,
- 7. South Asia in this paper refers to the following nations: Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka.