Writ on Water: Closing the Traverse in the Tri-State Area of New South Wales, South Australia, and Victoria

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The histories of the Victorian-South Australian, the Victorian-New South Wales and the South Australian-New South Wales borders are well known and have been the subject of much comment. Except for passing comment and speculation, the junction of the Victorian, South Australian and New South Wales borders has not been properly discussed or subject to analysis. The authors here offer their resolution of the 'missing' borders in the tri-state area of Victoria, New South Wales and South Australia in the locale of Mildura-Renmark where the three states abut.

Keywords: State boundaries, borders, Victoria, South Australia, New South Wales

INTRODUCTION

The histories of the Victorian-South Australian, the Victorian-New South Wales and the South Australian-New South Wales borders are well known and much written of (Clark, 1971a; 1971b; 1984a; 1984b; Middleton, 1999; 2001; 2003; Curnow, 1984; 1989; 1994; Cumbrae-Stewart, 1933; Dunn, 2004). Following a recent series of articles in *The Age* newspaper on the Murray River (Waldon, 2005) which initiated an exchange of letters to the editor (Sloan, 2005; O'Neill, 2005) we offer our interpretation of the location of the borders between the three Australian states of Victoria, South Australia (SA) and New South Wales (NSW), where these three states abut, that is, the tri-state area in the vicinity of Renmark and Mildura. While the legally defined locations of the Victorian-SA, the NSW-SA and the Victorian-NSW borders have been resolved, that of the Vic-SA-NSW border has not. This unresolved border links the resolved Victorian-SA, NSW-SA and Victorian-NSW borders. Through neglect or other failure to maintain the physical manifestations (or markings on the ground), the Victorian-SA border is currently in need of re-establishment as was the case of the NSW-SA border which was successfully re-established in the 1980s (Vincent, 1996). The failure of the respective state governments to maintain the physical evidence of the locations of the resolved borders is unrelated to the issue of the unresolved border linking the three states as discussed in this paper. This paper is concerned with the location

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of the border along the river between the points W, M, and T shown at Figure 1.

Figure 1. The borders of Victoria, South Australia and New South Wales are undefined with respect to the 13 kilometres of the watercourse downstream from points T and M to point W.

The issue is best illustrated at Figure 1 showing the tri-state region of the states of Victoria, NSW and SA. On the left is the border running north-south between South Australia and Victoria as marked on the ground by Wade and later completed by White in the late 1840s. This border is designated W at its northernmost point on the south bank of the Murray River and was marked by a cairn erected approximately one kilometre south of this position by White in 1850. It is generally accepted that this border is located approximately 3.5 kilometres west of its intended position which was specified as the 141st meridian of longitude east of the Prime Meridian (longitude 0° at the Greenwich Observatory). The intended location of the eastern boundary of the colony of South Australia was specified in the imperial statute empowering the creation of the colony in 1834 and the consequential 1836 Letters Patent creating the colony.

Despite attempts by South Australia to have the border relocated to its intended position both the High Court of Australia and the Privy Council upheld the actual location as laid out on the ground (*SA v Victoria*, 1911; *SA v Victoria*, 1914). At the time of its marking the border was intended to demarcate the two colonies of South Australia and New South Wales. The Port Phillip District of the New South Wales colony was established as the independent colony of Victoria in 1851, the year following White's completion of the survey marking the border.

On the right is the SA-NSW border running north-south as located on the ground by Todd and Smalley in 1868. Pursuant to evidence in the SA-Victoria border litigation, this border is shown as approximately one hundred metres east of its intended location at 141° East (*SA v Victoria*, 1911: 696; *SA v Victoria*, 1914: 139). This border is designated T at its southernmost point on the north bank of the Murray River.

Also on the right of Figure 1 is the Victorian-NSW border (marked as M at its westernmost point) running along the top of the southern bank of the Murray River as specified by the imperial statutes of 1850 (*The Separation Act* creating the colony of Victoria) and 1855 (*The NSW Constitution Act* specifying the border between the two colonies) and the interpretation of these two statutes by the High Court in 1980 (*Ward v R*, 1980).

The Victorian-SA border is displaced approximately 3.6 kilometres west of the NSW-SA border (as marked by Todd and Smalley in 1868) and the Victorian-NSW border. This distance is equivalent to approximately 13 kilometres measured along the riverfront or watercourse of the Murray River. Duncan (1982: 3) suggests the watercourse has a length of 16 kilometres, while Curnow (1994: 194) describes the watercourse as being of length 10 kilometres.

WHY IS THE BORDER ISSUE OF INTEREST?

Apart from satisfying idle intellectual curiosity there exists the need to attribute jurisdiction with regard to the allocation of water and other commercial rights, the licensing and administration of tourism and recreational facilities, the provision of search and rescue services, the supervision of health and safety issues, and the enforcement of the civil and criminal law. The 1840s agreement between NSW and SA was founded on the need to determine territorial jurisdiction yet the undefined 13 kilometre riverfront still awaits a determination of territorial jurisdiction more than 160 years later: it is unfinished business. Today, we have the technical means of locating (within several metres) and extracting (within minutes) an injured person to an appropriate medical facility. What we lack is the means of quickly determining the responsible authority and its

territorial jurisdiction. An authority is able to home in precisely on a specified location, but is unable to determine under which authority that location resides.

POSSIBLE SOLUTIONS

Option 1 (Dunn 2004, pp 66-8)

The 13 kilometres of the Murray River downstream from T and M lies wholly within SA jurisdiction (Figure 2). Thus, the northern border of Victoria continues as the top of the southern bank from M to W and the SA-NSW border extends south from T to M. Currently, SA government fisheries officers enforcing that state's fishing regulations exercise *de facto* jurisdiction over this section of the river (Dunn, 2004: 66). This and other options are shown schematically in the accompanying simplified schematic Figures 2 to 5.

Figure 2. Option 1 confers SA with sole jurisdiction over the whole breadth of the 13 km watercourse from T and M downstream to W.

Option 2

The unresolved 13 kilometres of the river are shared between NSW and SA pursuant to the *ad medium filum aquae* rule to the thread or centreline — *thalweg* — of the stream (Burke, 1977: 45-46). Dunn (2004: 66) comments that this bizarre outcome ... from a strict interpretation of existing law [is] it seems the most likely. This option (Figure 3) would see a 13 kilometre protruding finger of width half the breadth of the river extending westward from NSW at point M. Thus the Victorian-NSW border would continue

along the top of the southern bank from M to W. From this point the NSW-SA border lies in a northerly direction to the midstream of the river and from there, generally in a south-easterly direction (along the thread of the River), to a point in midstream on the north-south line joining T and M. The NSW-SA border then lies northward to T and beyond. If this border is correct then it follows that the Privy Council was in error when it concluded in its judgment that ... *Victoria alone is directly interested in the question of the Wade and White boundary. The present colony of NSW has no interest in it* (SA v Victoria, 1914; 139).

Figure 3. SA and NSW share jurisdiction over the 13 km watercourse according to the '*ad medium filum aquae*' rule.

Option 3

The unresolved 13 kilometres of the river are shared between Victoria and SA pursuant to the *ad medium filum aquae* rule. This option (Figure 4) would see the last 13 kilometres of the northern border of Victoria protruding into the Murray River to its thread. Consequently the *unclosed* remnant of the NSW border would see a continuation or extension of NSW's western boundary from T to M. This extension of the western boundary would continue as the NSW-SA border from T to midstream and thence as the Victorian-NSW border from midstream to the point M on the top of the southern bank of the river. This interpretation is favoured by Wells (1986) in reliance upon Duncan (1982: 3) who concluded that *the mid-stream position is deemed to apply to the 16 km of river between 141° East and 140° 58' East that forms part of the Victoria-South Australia border. A similar*

interpretation is offered by Curnow (1984; 1989; 1994) in reliance upon a comment by the Victorian Solicitor-General in 1974. Having been unable to unearth a memorandum of legal advice or formal opinion we have concluded that Curnow's description of the Solicitor's comment refers to an informal oral communication.

Figure 4. SA and Victoria share jurisdiction over the 13 km watercourse pursuant to 'ad medium filum aquae'

Option 4

The 13 kilometre course of the Murray River downstream from T and M lies wholly within NSW jurisdiction. This is similar to Option 2, although the protruding 13 kilometre finger has a breadth of the whole river. Thus, the northern border of Victoria continues as the top of the

Figure 5. Option 4 confers NSW with sole jurisdiction over the whole breadth of the 13 km watercourse from T and M downstream to W.

southern bank from M to W (Figure 5). The rationale supporting this option would appear to be that NSW retains the whole of the river (pursuant to the 1855 Imperial Statute) and that impliedly SA is subject to the same statute.

Upon SA and NSW agreeing to use the 1868 Todd-Smalley line as the border, this agreement only applied to that land north of the River and left that part of the River over which NSW had previously exercised jurisdiction since the 1855 statute unchanged. We suggest that this option is extraordinarily far-fetched. Further, the preamble to this statute recites that doubts have arisen as to the Victorian-NSW border without reference to

Figure 6. Options 5 to 9 illustrate the remaining possible permutations of the border arrangements which, it is submitted, are unsupported at law.

SA; and we submit that this wording is insufficient to displace the *ad medium filum aquae* rule as between NSW and South Australia.

The remaining options (the 5th through to the 9th – Figure 6) show all the remaining possible permutations available and include those we submit may be summarily dismissed as unsupportable in law. They include the questioned part of the river lying wholly within the Victorian jurisdiction and the remaining possible permutations of shared jurisdiction over the questioned part pursuant to *ad medium filum aquae*. These options are beyond those described by Dunn and exhaustively represent all the remaining possible permutations.

Clearly, Options 7 and 9, with an outlying area of Victoria unconnected to the main part of Victoria, have no basis in reality, practicality or law. We submit that Options 6 and 8 are, to a lesser degree, similarly without rational basis.

We have not here considered the possible interpretations requiring the boundaries to be projected at right angles to the middle thread of the River (Willis, 1991: 10, 18 and 43-44; *Rural Municipality of Portage la Prairie*, 1924: 779-781; Grimes, 1976: 750-751, 759-761; Hallman, 1994: ¶13.53, 13-96) as illustrated in Figure 7. We have taken this course because none of the three states, SA, NSW and Victoria, have questioned the North-South border even where it meets the River at an angle and neither SA nor NSW questioned the North-South border

Figure 7. Where the boundary leading to a stream meets it obliquely, the extension is made, as a rule, by a line drawn 'perpendicular' to the middle thread of the stream.

where it meets and crosses the River Glenelg obliquely in their respective proclamations of the border in 1847 and 1849. Further, the boundary perpendicular to the thread of the stream is more suited to the balanced allocation of riparian rights between the individual landholders of smaller riverfront land parcels than territorial jurisdictional borders (Nichols, 1989: 170-171).

SOLUTION BASED ON CHRONOLOGY

The 1836-42 Border.

At this time the only border separating the two colonies of NSW and SA was the *astronomical* (Ward v R, 1980: 323; Clark, 1983a: 263; Clark, 1983b: 323) or *geometric* (Linklater, 2002: 67-68 and 79; Ward v R, 1980: 317; Clark, 1983a: 263) border running North-South along the 141st meridian (or 141° East of the Prime Meridian). This border is of course no more than an *imaginary* (Burke, 1977: 243; Davis, 1971: 53) or *invisible* (Simpson, 1976: 125-126; Lambden and de Rijcke, 1989: 107) line on the surface of the earth and unascertainable by any of the inhabitants of the border area. It was for this reason that the respective governments of the two colonies agreed to the physical marking of the border on the ground in the late 1840s.

The 1850 Border (Prior to the Creation of the Colony of Victoria)

Following upon the proclamations of the border by SA (1847) and NSW (1849) and pursuant to the Privy Council decision in 1914, there can be no doubt that the border between SA and NSW (later Victoria) running from the Southern Ocean to the southern bank of the Murray River is the Wade-White line. Remaining to be resolved is the location of the SA-NSW border north from the southern bank of the River. Consequently, we consider two possible interpretations of this border north of the Murray River.

The Prolongation of the Wade-White border. The consequence of the Wade and White surveys was to fix the location of the *whole* SA-NSW border (from the Southern Ocean to the 26° South parallel of latitude – the northern bound of SA). We here suggest this to be the more likely interpretation because the respective governments concerned with the

border (NSW and SA), both evinced an intention to complete the northern portion of the border by a prolongation of the southern portion of the border as marked out on the ground by Wade and White. This intention evinced by the NSW and SA colonies continued until the late 1860s when both colonies agreed to commission another survey to determine the location of the 141st East meridian of longitude. Further, until the 1868 determination of the location of 141° East by Todd and Smalley, the only practical indication of the northern portion of the border was the marked southern portion (the Wade and White line). That is, should any person in the vicinity of the border be asked to indicate the location of the border *north* of the River, that person, whether they be a local settler or a SA government officer or a NSW government officer, would have referred to the already marked border *south* of the River, it being the then belief of both governments that the Wade-White border was properly located at 141° East as intended.

The Retention of the Astronomical Border at 141° East. This interpretation retains the statutorily specified astronomical (or geometric) border of the 141° East meridian subject to the minimum necessary alteration of the location of the southern portion of the border pursuant to the proclamations by SA and NSW and in keeping with the 1914 Privy Council decision. Thus the border would extend north past the White cairn to mid-stream where the border would then follow upstream along the thread of the River until it meets the astronomical 141° East meridian where it would then continue north along that meridian. The interpretation that the border would follow the thread of the River upstream is founded upon the common law rule of *ad medium filum aquae* that applies unless there exist indications otherwise. It is here noted that this interpretation most closely follows the current state borders of Victoria, SA and NSW in that there is an east-west lateral displacement of approximately 3.5 kilometres between the NSW-SA and the Victoria-SA borders. This interpretation is consistent with the SA proclamation of the Wade-White line in 1847 being confined only to that line and leaving the *astronomical* 141° East meridian as the only border applicable where there was no effective proclamation by SA (or NSW).

The 1851 border (following the creation of the Colony of Victoria)

Having posited the two possible interpretations of the border location north of the River it is necessary to continue considering *both* interpretations until it is possible to unequivocally eliminate one of these interpretations. We are of the view that the second interpretation is untenable but have proceeded with its inclusion in order to cover all possible permutations. It now falls to consider the effect of the Separation Act 1850 (13 & 14 Vict. c. 59) on both these interpretations of the border location. The Act facilitated the creation of the independent colony of Victoria out of the Port Phillip District of NSW.

The Prolongation of the Wade-White border. If we assume this interpretation of the northern portion of the SA-NSW border then the effect of the creation of Victoria out of NSW will be a Victoria-NSW border running upstream along the thread of the River from the midpoint of the River where it crosses the Wade-White border (directly north of the cairn erected by White). At this time both Victoria and NSW would share an *ad medium filum aquae* border from the Wade-White line upstream to the source of the River Murray and thence by a straight line to Cape Howe. The NSW-SA border would continue as the northern prolongation of the Wade-White line and would commence at the mid-stream termination of the Victoria-SA border.

The Retention of the Astronomical Border at 141° East. This interpretation requires the northern border of Victoria to commence at a point midstream and due north of the White cairn and the point W on the southern bank of the River Murray. From there Victoria and SA would share an *ad medium filum aquae* border to a point midstream at 141° East. From there the northern border of Victoria would proceed upstream (as the Victorian-NSW border) pursuant to the *ad medium filum aquae* rule to the source of the Murray River and thence directly to Cape Howe. The SA-NSW border would lie northward from the midstream point at 141° East. This SA-NSW border is unchanged from that considered above in (*The 1850 Border (The Retention of the Astronomical Border at 141° East)*.)

The 1855 Border (Pursuant to the NSW Constitution Act 1855)

It now falls to consider the effect of the *NSW Constitution Act 1855* (18 & 19 Vict. c. 54 which expressly retained the *whole* of the course of the Murray River within the territory of NSW: *It is hereby declared and enacted that the whole Watercourse of the said River Murray, from its Source therein described to the Eastern boundary of the Colony of South Australia, is and shall be within the Territory of NSW*), on both these interpretations of the border location.

The Prolongation of the Wade-White Border. After the passage of this Act the Victoria-NSW border described above (as in *The 1851 Border (The Prolongation of the Wade-White Border)* as an *ad medium filum aquae* border (running upstream from a mid-stream point north of the point W to the source of the River and thence to Cape Howe) would be *shifted* south so that the border was now the top of the southern bank running upstream from the point on the southern bank (W), through the point M and continuing along the southern bank to the source of the River and thence to Cape Howe. The prolongation of the Wade-White border north from the point W would continue as the SA-NSW border (that is, the western border of NSW and the eastern border of SA).

The Retention of the Astronomical Border at 141° East. After the passage of this Act the Victoria-NSW border described above (as in *The 1851 Border (The Retention of the Astronomical Border at 141° East)* as an *ad medium filum aquae* border (running upstream from a point mid-stream at 141° East to the source of the River and thence to Cape Howe) would be *shifted* south so that the border was now the top of the southern bank running upstream from 141° East, through the point M and, continuing along the southern bank to the source of the River and thence to Cape Howe. That the northern border of Victoria (east of the 141st meridian) has been *shifted* south does *not* mean that the southern border of SA with Victoria (west of the 141st meridian and running downstream along the middle thread of the river) has necessarily also been *shifted* south, although the Victoria-NSW border would be *shifted* south. Thus the Victoria-SA border (as in *The 1851 Border (The Retention of the Astronomical Border at 141°*

East) running midstream from north of W to the 141st meridian would now become the NSW-SA border (leaving a 13 kilometre protruding *finger* of NSW territory bounded on the north by an *ad medium* NSW-SA border and bounded on the south by the top of the southern bank NSW-Victoria border).

The Current SA-NSW Border (as fixed by Todd and Smalley in 1868)

It now falls to consider the effect of the agreement of the NSW and SA governments to re-determine the location of the 141st meridian of longitude and the adoption by both those colonies of that location after it was fixed by Todd and Smalley in 1868.

The Prolongation of the Wade-White Border. This prolongation of the north-south Victoria-SA border would no longer be of any effect once NSW and SA had agreed that their common border should be at the 141° East meridian as fixed by Todd and Smalley (in fact some 100 metres east of the true position of the 141° East meridian). Thus the NSW-SA border (its southernmost point being on the southern bank at point W — one kilometre north of the White cairn — as determined above (in *The 1855 Border (The Retention of the Astronomical Border at 141° East)*) would be *shifted* some 3.6 kilometres eastwards to the point M. Thus the northern border of Victoria would run along the top of the southern bank from W to M (the Victoria-SA border) then continue along the top of the southern bank from M to the source and thence to Cape Howe (the Victoria-NSW border). Although it provides a surprising result in that the riverine Victoria-SA border is not in accord with the *ad medium filum aquae* rule the explanation for this is that the *extra* territory acquired by SA upon the acceptance of the current NSW-SA border (that fixed by Todd and Smalley in 1868) is acquired wholly from what had previously (since 1855) been considered as NSW territory. There were no terms (express or implied) that upon the acceptance of the Todd-Smalley border that NSW should retain an *ad medium* border with SA from W to M or that Victoria should acquire an *ad medium* border with SA from W to M. This analysis is in accord with Option 1 and would see the whole of the watercourse west from M being within SA jurisdiction.

A possible different analysis is based upon the acceptance by both SA and NSW of the Todd-Smalley border only insofar as the land border dividing SA and NSW. This analysis (Option 2) would leave a 13 kilometre protruding *finger* of NSW territory between the southern border of SA (the *ad medium filum aquae* NSW-SA border running from just north of W to just south of T) and the northern border of Victoria (the top of the southern-bank Victoria-NSW border running from W to M and thereafter upstream to the River source). We submit that this analysis is not feasible in that it is doubted that NSW wished to retain for itself such an oddity of territory with its associated difficulties of exercising its jurisdiction. However in the strict legal sense this border is well-founded and possibly justifies Dunn's comment (2004:66) that this *bizarre outcome ... from a strict interpretation of existing law [is] it seems the most likely*.

Another possible analysis is that upon the acceptance by SA and NSW of the Todd-Smalley border NSW *surrendered* any territorial claim to the whole of the watercourse of the River west of the Todd-Smalley border. Such an analysis is in accord with the terms of the 1855 statute (*... from its Source therein described to the Eastern boundary of the Colony of South Australia*) and would result in Victoria acquiring an *ad medium* border with SA from W to M (Option 3). We submit that this analysis is not feasible in that it is doubted that a SA-NSW agreement can confer territory or jurisdiction upon Victoria without the agreement of Victoria — consider for example if the territorial jurisdiction was considered to include onerous obligations. Thus only the Option 2 interpretation remains.

The Retention of the Astronomical Border at 141° East. The fixing of the NSW-SA border by Todd and Smalley in 1868 would merely *shift* the north-south NSW-SA border from its location on the 141st meridian (described above in *The 1855 Border (The Retention of the Astronomical Border at 141° East)*) some 100 metres to the east leaving a 13 kilometre protruding *finger* of NSW territory between the top of the southern border of SA (the *ad medium filum aquae* NSW-SA border running from just north of W to just south of T) and the northern border of Victoria (the southern bank Victoria-NSW border running from W to M and thereafter upstream to the

River source). The agreement between SA and NSW to adopt the Todd-Smalley border would merely increase by 100 metres the 13 kilometre long NSW *finger* described above (in *The 1855 Border (The Retention of the Astronomical Border at 141° East)*.) We have already suggested this analysis with its territorial oddity and the difficulty of NSW in exercising jurisdiction renders it infeasible with the proviso that in the strict legal sense it may be *correct*.

DISCUSSION

We offer the conclusion (derived above in *The Current SA-NSW Border (The Prolongation of the Wade White boarder)*.) that the whole of the Murray River between the NSW-SA and the Victoria-SA borders is wholly within SA jurisdiction (Option 1) with the NSW-SA border extending south beyond point T to point M and the Victoria-SA border extending westward from point M downstream to point W and running along the top of the south bank of the river (Figure 8).

Figure 8. The authors' conclusion is that the northern border of Victoria continues along the top of the south bank of the Murray River with the consequence that SA alone has the sole jurisdiction over the whole of the river downstream from the NSW-SA border. Note that the Todd-Smalley border between NSW and SA has been prolonged due south from the point T to the point M.

Although it is possible to uphold a 13 kilometre *finger* of NSW territory protruding westward from the present NSW-SA border to the Victoria-SA border and of width from the top of the south bank to the middle thread of the River and the northern portion of the watercourse being SA territory (Option 2) we discount this conclusion because it requires the acceptance of

the 141st meridian as the border between NSW and SA long after the Wade-White line had been accepted by all relevant parties (this is in addition to the infeasible nature of the territorial oddity and the difficulty of NSW exercising jurisdiction over this oddity). That two of the parties later agreed to adopt the Todd-Smalley line as the NSW-SA border should not retroactively alter the analysis offered here.

Dunn (2004: 66) has suggested this solution to be, despite its *bizarre outcome ... from a strict interpretation of existing law ...[seemingly] the most likely* apparently on the basis that in 1869 SA declared the county of Hamley bounded on the east by the Todd-Smalley line and on the south by the middle thread of the Murray River. This may only have been in anticipation of Victoria *doing the right thing* and giving up the two-mile strip of disputed country running from the southern bank of the River (point W) to the Southern Ocean. Thus the specification of the southern boundary of the county of Hamley may be equivocal in that this boundary was also to serve as the northern boundary of another SA county immediately to the south of Hamley upon the expansion eastward of that other county upon Victoria acceding to the SA request to adopt a common border located along the southern prolongation of the Todd-Smalley line. Of course, over the next half-century, Victoria declined the numerous requests of SA forcing SA to initiate its ultimately unsuccessful litigation before the High Court and the Privy Council. The SA declaration of an *ad medium filum* southern boundary of the county Hamley was not to unequivocally surrender territory south of this southern boundary to NSW (or Victoria for that matter). That is, the declaration of a southern boundary of the county Hamley is not necessarily a declaration of the southern border of SA.

Otherwise, SA may have specified the middle thread in accord with the general rule of riverine boundaries (the *ad medium filum aquae* rule) and thus surrendered any claim to the whole of the watercourse (as in Option 1). However, surrendering or vacating does not necessarily result in another party coming in to take up or fill the territorial space and jurisdiction vacated by SA. We suggest the objective analysis of the 1869 SA declaration of its Hamley county being bounded on the south by the middle thread

ceased in 1914 with the Privy Council decision in *SA v Victoria*.

For Victoria to retain an *ad medium filum aquae* border with SA along the 13 kilometre watercourse (Option 3) would necessarily entail the unilateral abandonment by NSW of the whole of the 13 kilometre watercourse lying between the Todd-Smalley line and the prolongation of the Wade-White line. Such a unilateral abandonment would allow both SA and Victoria to *expand* to fill the territorial *void* with the SA eastern border moving eastward to the current western border of NSW and its southern border moving southward to the northern border of Victoria which has also moved northward to where the two meet *ad medium filum*.

Our conclusion that this part of the River's course lies wholly within SA suggests that the passive participation by SA in the *Ward v R* appellate litigation was ill-conceived and it is indeed fortunate for SA that the High Court upheld the proposition advanced by NSW in the case. The purpose of SA's intervention in the case, as summarized by the editors of the *Commonwealth Law Reports* (*Ward v R* 1980 at 311 *per* G C Prior for the State of South Australia intervening by leave), is difficult to discern and may possibly be a reference to the 1839 boundaries of the then Port Phillip District being bounded on the north and the east, respectively, by the 36° South parallel of latitude and the 146° East meridian of longitude (being both those east-west and north-south lines running approximately through the present day town of Corowa). If so, the submission ignores all that had passed since 1839. If not so, the submission appears to be no more than a belated plaintive cry by SA that we *wuz robbed* by the 1914 Privy Council decision. Implicit in the SA submission is the existence of a Victoria-SA border running in the general east-west direction. This necessarily requires that SA only accepts Options 1 and 3 because Options 2 and 4 have only a southern border of SA with NSW and the other options are discounted as unsupported in law. That there is a southern border of SA with Victoria had not been established and appears to have been assumed in the SA submission.

Our conclusion also coincides with the simplest possible allocation of jurisdiction. Any alternative interpretation requires the adoption

of a *discontinuity*. Simplicity or avoidance of discontinuity by itself does not support our conclusion but merely adds some (small) weight to the utility or veracity of our conclusion. That SA has jurisdiction over the whole breadth of the river west of the SA-NSW border is consistent with NSW having jurisdiction over the whole breadth of the river east of the SA-NSW border. While an argument can be mounted for SA and Victoria having territorial jurisdiction over half the breadth (to the middle thread) this results in a discontinuity in the Victorian border. Similarly, if SA and NSW have territorial jurisdiction over half the breadth (to the middle thread) this results in an outstanding discontinuity in the NSW border. Similarly, for NSW to have jurisdiction over the whole breadth of the river from the SA-NSW border downstream to the SA-Victoria border results in a similar discontinuity.

The conclusion favouring SA exercising sole jurisdiction over the whole of the watercourse downstream from M to W is that the fewest possible assumptions are to be made in explaining a thing or result and is commonly known as *Occam's razor*. Although acceptable in science and logic it is not a recognized tool in legal analysis. That is, both the interpretations here offered that SA and Victoria share an *ad medium filum* border (Option 3) or that SA and NSW share an *ad medium filum* border (Option 2) are not necessarily displaced by Occam's razor. We offer the dictum of Justice Oliver Wendell Holmes that *[t]he life of the law has not been logic* as supporting the disallowance of the razor as an allowable legal tool. Nonetheless, that Victoria and NSW share a border along the top of the southern bank, our conclusion results in a similarly shared Victoria and SA border along the top of the southern bank (Option 1) without any of the discontinuities as required by Options 2 and 3 (or even Option 4).

CONCLUSION

From the foregoing it is apparent that the chronological order of events is relevant to the determination of the location of the state boundaries. That is, the Wade-White line was ratified prior to the creation of the colony of Victoria which in turn preceded the 1855 statute that NSW retains the whole of the Murray River watercourse within its territorial jurisdiction which

in turn was followed by the 1868 adoption of the Todd-Smalley line by NSW and SA as their common border. There is cause for believing the colonial government of NSW would have been less zealous in defending its territorial sovereignty over its far removed south-western corner had the requests by SA that its eastern border be shifted eastwards from the Wade-White line been able to be directed to Sydney rather than Melbourne.

The foregoing also illustrates the futility of purporting to fix an astronomical or geometric position with precision and enduring certainty. For example, Tyers's original 1839 marking of his preliminary estimate of the location of the 141st meridian was believed in the 1840s (prior to the establishment of the Wade-White line) to be out by approximately 3800 metres east of the true position. Recent research, including the relocation of the original 1839 marking, has now established the error to be of the order of 500 metres east of its true position (Middleton, 2003; Hughes, 2004). The same research has suggested that a *blunder* committed by Wade in 1847 resulted in the Wade-White line being marked some 200 metres east of the position intended by Messrs Wade and White (Middleton, 2003: 28; Dunn, 2004: 29). Similarly the Todd-Smalley line of 1868 was in error by, according to the calculations completed during the hearing of this 1911 High Court case (*SA v Victoria*, 1911: 696 per Griffith CJ), *at most, a few hundred feet*. Four years later, this *few hundred feet* had lengthened to *probably a hundred yards to the east of the meridian which it purports to mark out* (*SA v Victoria*, 1914: 139 per Lord Moulton).

Moreover, it all depends upon the frame of reference or the starting point: in terms of the Australian Map Grid related to the 1966 Australian Geodetic Datum, the NSW-SA border as marked by Todd and Smalley is located 144 metres east of the 141st meridian (Curnow, 1994: ¶ 7.3.4, 194). Recent historical research indicates that Todd and Smalley in 1868 were using a different Prime Meridian of 0° longitude than that used by Tyers in 1839 and relied upon by Wade and White in 1847-50. The Prime Meridian datum effective from 4 January, 1851 (and used by Todd and Smalley) was approximately 7 metres east of the Prime Meridian datum previously used until 31 December, 1850 (Ordnance Survey,

1967: 92-101; Howse, 1997: 160-161) and used by Tyers, and Wade and White.

We acknowledge that our proposed resolution represents an opinion and a true resolution awaits a definitive determination (Curnow, 1994: 196). However we would suggest that the only alternative to our proposed resolution is the existence of a 13 kilometre *finger* of NSW territory over which NSW evinces no intention or desire to exercise jurisdiction (Option 2).

We conclude that with the passage of more than 150 years since the issue first arose and with the approaching centenary of the South Australia-Victoria border litigation, the time for a definitive determination is overdue. There exists a certain irony that with modern technology a traveler in the tri-state area can determine with precision the exact geographic location but is unable with any confidence to fix that location with reference to the law of the place; that is, there exists no doubt in regard to the *locus* but this cannot be said of the *lex loci*.

ACKNOWLEDGEMENT

We acknowledge the contribution of members of the Centre for Spatial Data Infrastructures and Land Administration in the Department of Geomatics at the University of Melbourne and also the serendipitous assistance of David Mitchell and Rod Deakin of RMIT University's Department of Geospatial Science.

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Writ on water: Closing the traverse in the tri-state area of New South Wales, South Australia, and Victoria

Date:

2007-06-01

Citation:

Park, M. M. & Williamson, I. P. (2007). Writ on water: Closing the traverse in the tri-state area of New South Wales, South Australia, and Victoria. JOURNAL OF SPATIAL SCIENCE, 52 (1), pp.29-40. <https://doi.org/10.1080/14498596.2007.9635098>.

Publication Status:

Published

Persistent Link:

<http://hdl.handle.net/11343/34774>