

The Cognitive Geometry of War¹

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Introduction

The desire for exclusive control over specific areas of land has served as a stimulus to war and intergroup violence in untold numbers of cases in the course of human history. But there are many large groups which live for long periods in territories in which they are interspersed with other groups, and pogroms do not happen all the time. Indeed, the evidence of history tells us that many large groups did not act on the basis of any territorial imperative to seek exclusive occupation of any single continuous area. Not only are there successful and long-lasting multicultural and multiethnic societies involving systematic overlapping and intermixing of distinct groups within a single region, there are also — and indeed far more commonly than is often presupposed — non-contiguous nations (such as the United States) whose sovereign territory is broken up into separate pieces by the interspersed territory of other sovereign nations.

Yet remnants of the desire for exclusive control remain, and may be latent for long periods, even when not expressed in action. Such remnants are moreover stimulated by, and are reciprocally a pre-condition for, the forcefulness of certain sorts of rhetorical devices on the parts of tribal elders, historians, poets, religious leaders and mongers of war. They are illustrated in rhetorical devices such as 'manifest destiny', 'from sea to shining sea', '*Deutschland ist unteilbar!*' which have the power to awaken or reinforce the desire of group members to establish for themselves exclusive occupation of certain territorial regions, often regions of certain desired ('natural', often broadly circular) shapes, and marked by correspondingly 'natural' (topographically determined) frontiers. Poets favor 'natural' borders. The rhetoricians of the Nazi party were exploiting this appeal in their talk of '*Lebensraum*' and in their justification of attempts to eliminate the Polish Corridor and thus establish unification of Germany with the German settlements to the east.

Such rhetorical devices have their equal and opposite counterpart in phrases such as 'the Palestinian entity' and 'the six-county statelet', phrases

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designed to diminish the significance of claims to sovereignty on behalf of unfavored groups. The mentioned phrases point to *the dimension of geometry as a crucial but hitherto neglected factor in the aetiology of wars*, and to the tendency on the parts of leaders of national or ethnic groups and of war-propagandists to claim on behalf of their constituent populations rights to territories of certain geometrically favored sorts. Correspondingly, leaders of groups with established territories refer to attempts to dislodge them from control of even peripheral fragments of these territories as amounting to 'balkanization', 'dismemberment', 'mutilation', 'violation of the motherland' and the like.

Such devices are clearly illustrated in the case of Ireland, a peculiarly conspicuous example of the phenomenon I have in mind. Consider the following passage taken from the 'Manifesto' issued by the Bishop of Derry in 1916 in response to the prospect of partition:

Blessed by St. Patrick as a nation the children of Erin have clung to the national ideal with a tenacity surpassed only by their loyalty to the Faith that he planted in their breasts. And are the Irishmen of today going to prove themselves degenerate sons of their great and noble forbears? Are we going to surrender even without a national protest the inheritance of a United Ireland handed down to us through the ages of persecution and bloodshed? Are we so indifferent to the memory of our forefathers as to allow the last resting place of St. Patrick and St. Bridgid, the spot dearest on earth to great St. Columbcille, and the Primatial See of Ireland's Father in the Faith, to be included in a new Pale and cut off from the Fatherland? In such an event what a mockery it would be to speak any longer of Ireland a nation! Is not Ireland dearer to us than any little enclave of individuals, however important and indispensable they may seem to themselves?

The Ontology of Spatial Objects

In order to provide a theoretical background for the interpretation of the above we might distinguish three types of spatial object, as follows:

1. *Bona fide* spatial objects (for example islands, lakes): objects whose boundaries are intrinsic physical discontinuities in the material constitution of the earth.
2. *Fiat* spatial objects (for example counties, Indian reservations, state parks, parcels of real estate): objects whose boundaries exist as a result of human fiat or convention.
3. *Force dynamic* spatial objects (for example the area of land occupied by a given infantry troop): objects whose boundaries are determined by

the actual or potential dynamic actions of their respective constituent parts. (We take the term from Talmy 1988)

Under the first type are included spatial objects which would exist, and would be set into relief in relation to their surroundings, even independently of all human intervention, whether physical or cognitive. Objects of the second type begin to exist and are sustained in existence only as a result of certain cognitive acts, practices or institutions on the parts of human beings. There are no fiat objects in the extra-human world. Such objects exist through and through as a matter of convention. Consider for example the case of Wyoming and Colorado, which, like many political and administrative spatial objects in the United States, have rectangular shapes (or more precisely: they have shapes constructed on the surface of the earth out of parallels of latitude and longitude).

Objects of the third type are characteristically transient, and tend to form systems with other third-type spatial objects (occupied by more or less hostile neighbors) in relation to which they are subject to a very high degree of reciprocal dependence in respect of their size, shape, location and degree of elasticity.

Corresponding to the three types of spatial object, now, we can distinguish also three types of nation, or three models or ideals against which specific nations or nation-building projects may be judged:

1. the *bona fide* nation: this type is illustrated most clearly by the great island nations: Iceland, Japan, Britain (we shall come to Ireland later);
2. the *fiat* nation, illustrated most clearly by African and Middle-Eastern nations, whose borders are to a large degree the products of colonialism (of colonial fiat). Post-contact native American 'nations' (reservations) would also fall under this heading;
3. the *force dynamic* nation: this type is illustrated for example by those groups — of diaspora Jews, of gypsies, of Saami and Inuit, of Swedes in Finland, of Slovenes in Carinthia, of Poles in the era of partition — whose members feel themselves (to different degrees) as one, but who have been denied or have renounced any claim to a physical territory over which they would maintain exclusive jurisdiction.

Bona fide boundaries are, by definition, boundaries we do not create but find there before us; we stumble over them. Fiat boundaries, in contrast, are brought into existence by human cognitive acts and practices, above all by cognitive acts and practices which are linguistic in nature and which often involve what we might call *performative uses of maps*. Thus Thomas Jefferson called into being the states of the so-called Northwest Ordinance by drawing off 14 neat checkerboard squares between the boundaries of the Atlantic colonies and the Mississippi River in 1784.

The force of artificial borders patterned on this model is illustrated most clearly in Africa, where the colonial powers drew borders in ways which brought it about that different peoples came to be living together within a single legal-political territory. The paradigm instances of fiat nations in our sense (nations carved out via specific acts of human fiat, whose boundaries may be built in whole or in part out of exact geometrical figures, normally straight lines) are associated especially with colonialism. They have borders drawn by governments (in London, Washington, Ottawa, or Mexico City) before they know how things look on the ground.

Such borders can be quite stable and peaceful (this applies even to the colonially drawn borders in the sub-Sahara region), in contrast to the carefully drawn boundaries of Europe based on the idea of a 'self-determination of nations'. Nations have however been known to go to war over borders of this artificial sort, sometimes protesting at their very 'arbitrariness'. This is so for example in the case of Iraq, a fiat spatial object formed in 1922 when Sir Percy Cox, the British High Commissioner, drew lines in the sand marking the borders of Iraq, Kuwait, and Saudi Arabia. (See Geyer and Green 1992.)

Towards Fixed and Determinate Fiat Boundaries

As Whittaker has argued, 'the very idea of a frontier as a line on a map is modern' (1994, p. 71). It seems, in fact, to have been the French who were primarily responsible for the consolidation and spread of this idea throughout the world, both in theory and in practice. The concept of natural, linear frontiers derives not least from the French fascination with *potamologie* or the myth of river frontiers as divinely ordained. (See Sahlins 1989, pp. 34ff.) The French took seriously the idea that existing European frontiers, as defined by rivers, mountains and seas, are laid down by God. The central authorities then proceeded to *enforce* linguistic homogeneity in brutal fashion upon the 'French' living within the region thus defined, in such a way as to create a single homogeneous 'modern' state (and we can see how similar patterns followed later in Italy and Germany). It was Napoleon, above all, who proceeded to impose the French ideal upon the rest of Europe, and the myth of *potamologie* encapsulated French ambitions not only in Europe but also in the Maghreb.

Hand in hand with the French cadastral ideal of fixed linear external frontiers is the idea of compactness and convexity, an idea according to which the natural shape of a nation is a continuous, broadly spherical (in the French case: hexagonal) bubble. This idea encapsulates the geopolitical dream of the nineteenth century, not only in Europe but also, and more systematically and impressively, in Africa and in post-Jeffersonian America, where whole continents were subjected to a process of geometrical *tiling* and thus divided into

nations and states on the basis of geometries inspired by the French model. Irish 'Republicanism', too, is a still-living product of this model, and of the violence and imperviousness to ground-level complexities with which it was often originally associated.

The French ideal of the modern state is one which sees the need to divide each larger continent into geometrically natural constituent wholes (by analogy with a rectangular cadastre), and to ensure homogeneous (especially linguistically homogeneous) populations within each region. The ideal is standardly one according to which all and only the speakers of a given language should co-exist within a single continuous region enjoying 'natural' frontiers. (Consider the failed attempt by the authorities in the Irish Free State to impose Gaelic upon the population of the new Irish nation.) The ideal worked, to a degree, in France, and it was to a degree effective also in Italy and Spain, though each of these countries still has significant indigenous national minorities. But it could not be made to work in certain other parts of continental Europe, as is seen above all in the disasters which followed Woodrow Wilson's embrace in 1918 of the principle of 'self-determination of nations'.

Solutions to Inter-Ethnic Conflict

As Hayden has pointed out:

When the majority is mobilized on ethnic grounds, minorities are incompatible with the definition of the state, and those that form a local majority are likely to try to secede, particularly when they can anticipate acceding to a neighboring state under the control of their ethnic confreres. This is the situation of Serbs and Croats in Bosnia and Herzegovina, Russians in Ukraine and Moldova, Albanians in Kosovo and Macedonia, Armenians in Nagorno-Karabakh, Kurds in Turkey, Iran and Iraq, Tamils in Sri Lanka, and Muslim Kashmiris in India. (Hayden 1995, p. 65)

Ethnic mobilization, as is all too clear, can yield urgent problems calling for diplomatic, political or in some cases military solution. The range of 'solutions' to such problems which have standardly been considered include:

1. extermination or 'ethnic cleansing' (of Jews and Gypsies by Germans in the Nazi era, of Moslems by Serbs in Bosnia);
2. expulsion (by Turkey of Armenians from Turkey and of Greeks from Northern Cyprus; by Czechoslovakia and Poland of Germans after 1944);

3. enforced or economically supported relocation (by Austria of Germans in the successor territories after the collapse of the Habsburg Empire; by Stalin of Jews, Cossacks, Tartars, Germans and other groups);
4. enforced or economically supported isolation (by the United States of native Americans; by Germans, Russians and others at various times of Jews);
5. military rule (by India in Kashmir, by Israel on the West Bank, by Serbia in Kosovo);
6. external imposition of authority (by the British under United Nations mandate in Cyprus or Palestine, by NATO forces under the Dayton agreement in Bosnia);
7. negotiated settlement leading to amicable distribution of democratic rights within a single territory (by the citizens of Canada — at this writing — in relation to Quebec; by the Finns and Swedes in relation to Åland);
8. negotiated settlement leading to a splitting of territories (in Pakistan with the formation of Bangladesh; in Czechoslovakia with the formation of the Czech and Slovak Republics).

A Modest Proposal

All but the first of these solutions are clearly to be favored on the minimal ground of respect for human life. Alternatives 4. to 8. are to be favored further, however, in virtue of the fact that they do justice to the feelings people have for their homes and for their land, for inherited rights of occupation, for established households and communities. The thesis to be considered here is that the range of these favored alternatives, and above all the range of available alternatives under 7. and 8., can be increased, if ways can be found to relax the geometrical constraints associated with the French ideal of nationhood and of the acceptable shapes of nations through the advocacy of non-contiguous and of perforated nations. Such advocacy should be seen as being fully consistent with the fundamental principles of international law which dictate, for each given state, exclusive jurisdiction over its national territory and over the permanent population living there together with a duty of non-intervention in the areas of exclusive jurisdiction of all other states. For it relates exclusively to the *shapes* of national territories that are to be made available as alternative outcomes of diplomatic negotiations designed to lead to settlement of inter-group disputes.

The imposition of new fiat boundaries is often recommended also outside Europe as a solution to the tribal intermixings that were brought about by colonial fiat boundaries. The onward march of political liberalization in Africa is likely to encourage further moves of this sort — moves towards ethnic

determination of territorial boundaries. Such moves, if they are possible at all given existing constraints, would have the advantage of involving no relocation of (or warfare between) peoples. They amount, at least initially, to a mere abstract reconfiguration of the pattern of fiat boundaries. But they will likely cause problems no less serious than those currently faced by the populations of Rwanda, Burundi, Liberia, and so on, and we are not advocating such moves here. Indeed we believe that the idea of national self-determination, to the degree that it presupposes that no intermixing obtains, is deeply flawed in relation to the world as currently constituted. Even leaving aside mixed populations, land is rarely capable of being cleanly divided according to any single principle — too many obstacles stand in the way, including resistant topography, existing property rights and dynastic allegiances, existing lines of communication and patterns of trade, as well as territorial divisions based on religious and other affiliations. What we are suggesting, rather, is that, *where a point of irretrievable breakdown has in any case been reached between ethnic or other groups living within a single territory*, the range of geometric alternatives brought forward for consideration in the division of the territory should be seen as being wider than is dictated by the French model based on the geometrical ideal of symmetric tiling. Geometrical alternatives should be included which deviate from this model to the extent that they serve the end of doing maximal justice to existing (land and community) rights in such a way that rights of autonomy (and even of sovereignty) should be granted to those who do not wish to relocate. We would thus encourage efforts to find ways of ensuring that diplomats and others involved in negotiations designed to lead to the resolution of inter-group disputes embrace in their deliberations a wider array of geometrical alternatives than is at present allowed — including perforated and above all non-contiguous territories.

Switzerland

There are many examples of non-contiguous nations across the face of the earth: practically all island nations are non-contiguous in the sense here at issue. Our more radical proposal countenances non-contiguous nations whose constituent parts would be separated not by water but by land and by other jurisdictions. Switzerland, in dividing its cantons, has — whether consciously or not — worked exactly according to the principles of unconstrained geometry outlined above. The Swiss Canton of Fribourg contains several portions which are completely surrounded by the Canton of Vaud, which is, like several other cantons, a perforated spatial object. The Swiss have learned that the exploitation of bizarre shapes can be a way of doing justice in peaceful fashion to inherited religious, linguistic, ethnic or dynastic

divisions. Switzerland is itself perforated in that it circumcludes *inter alia* the German town of Büsingen on the Rhine, so that citizens of Büsingen who work in Germany must daily pass through eight national borders on their journey to and from work. (There are 38 such enclaves in the Baarle region in the south of the Netherlands: parts of Belgium which are completely surrounded by Dutch territory, some of which include in turn Dutch enclaves completely surrounded by Belgian territory; the Spanish commune of Llívia in the Cerdanya region of Catalonia is likewise entirely surrounded by France: see Catudal 1979.)

A similar idea might be applied also in relation to the Irish problem. One idea to be brought forward for consideration might be that of ceding to the Republic certain Catholic areas, even areas within the interior of Northern Ireland as presently constituted, whose populations overwhelmingly desire rule from Dublin. In Quebec, similarly (and under the assumption that the dispute between the Francophone separatists and other groups has become truly irreconcilable), solutions to be considered might include the secession from Quebec of native Canadian territories and of the anglophone portion of Montreal, followed by the secession of a correspondingly perforated (rest-) Quebec from Canada as a whole.

Objections to the Proposal

We shall not go into detail here in giving an account of possible objections to the proposals here advanced for consideration. Problems which would arise through the embrace of non-continuous nations would turn above all on the fact that such countries would require means of access through the sovereign territories of other nations. Rights of access can however be guaranteed by treaty (as the rights of access to embassies, those odd examples of perforations within sovereign territory which currently exist throughout the globe, have been successfully guaranteed by treaty for many generations). The Vance-Owen Peace Plan involved an 'International Access Authority' to be established to guarantee freedom of movement in Bosnia. And just as Alaska can communicate without problem with the rest of the United States, so also, we might suppose, anglophone portions of Canada surrounded by sovereign regions of a newly perforated Quebec might be similarly in a position to communicate without problem with the remainder of Canada. The degree to which problems might arise in connection with such arrangements is, however, a matter for investigation.

God made Ireland; all the rest is the work of man

The Irish case differs in one respect from the other cases which have been dealt with thus far, in that the rhetoric of Irish nationalism presupposes a thesis according to which a genuine (free and sovereign) nation is one whose boundaries are not merely (a): such as to comprehend a single connected region (a region equivalent, topologically, to a circle), but also (b): entirely physical in nature — in the strong sense that they are coastlines encompassing the entirety of the relevant surrounding area of land. 'Ireland cannot shift her frontiers. The Almighty traced them beyond the cunning of man to modify.' (Bowman 1982, p. 11)

Note, however, that even the unitary Ireland that is represented in the mental maps of Irish Republicans is not a *bona fide* entity in the sense defined in the foregoing. For we are not here dealing with a single land-mass with autonomous physical frontiers, but rather with a complex product of human demarcation. Ireland is not a single 'whole island' but rather a super-unitary entity built up in fiat fashion out of non-contiguous parts (such as Inishkea, Inishmore, Inishbofin, Gorumna Island, and so on), and in such a way as to exclude other non-contiguous parts — such as the Isle of Man — in other ways comparable.

The overwhelming majority of geopolitical entities across the surface of the globe are indeed such as to fall short of the topological perfection of the *bona fide* spatial object, either because (like Japan, Denmark and Indonesia) they are super-unitary entities comprehending non-contiguous parts, or because (like France and Germany, England and Scotland, Ulster and Eire) they are sub-unitary entities, the result of a carving out of smaller fiat portions within some larger *bona fide* whole. And we note in conclusion that were Poland, say, to embrace the logic of the Irish, and demand autonomous coastal frontiers of her own, then Polish freedom fighters could not rest until they had occupied the entire Eurasian landmass.

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