Violent Conflicts 1400 A.D. to the Present
in Different Regions of the World

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ABSTRACT

This paper argues that we can improve our theorizing about violent conflict by more finely delineating the types of conflicts that occur. To that end the paper first argues for the necessity of a taxonomy of violent conflicts. It then describes the Conflict Catalog, a listing of all recorded violent conflicts that meet Richardson's magnitude 1.5 or higher criterion (32 or more deaths).   The paper presents "in-progress" findings from the catalog and compares them against analogous results from earlier compilations of violent conflicts. It also presents more detailed findings from the 5 regions (of 12) for which the list of conflicts is approaching completion. Among the findings highlighted is the widespread peacefulness of the 18th century.

INTRODUCTION

The classical and still dominant approach to the study of warfare consists of detailed description and intensive analysis of one or a few wars. A comparatively small subset of researchers has taken the approach of answering theoretical questions about warfare on the basis of many wars (for example, Blainey, 1973; Geller and Singer, 1998; Luard, 1987; Holsti, 1991). Despite true progress by this group in contributing to our understanding of war, the pace of that progress has not been as we would like. The problem lies not in the alleged loss of understanding of wars caused by having to work with so many of them with just a superficial understanding of each. The real problem in my opinion is that we have so little systematically collected data about most violent conflicts.[1] Even basic characteristics such as the number of

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1. The term 'violent conflict' is defined more fully later in the paper. At this point it is sufficient to note that violent conflict is a more general term than war or armed conflict as they are typically used in the research literature (Small and Singer, 1982; Kende, 1979; Bouthoul and Carrere, 1978, or

major actors or the duration of the conflict cannot be found in one or a few easily accessible locations except for a relatively small number of conflicts that are enumerated in the Correlates of War and related datasets. If one wishes to conduct empirical research concerning the large population of violent conflicts not included in that "family" of datasets, data about those conflicts are simply not readily available.

There is a second problem related to that first problem. Finding the causes and from that the harbingers of violent conflicts may progress faster if we more finely distinguish between different types of conflict and search for the causes of each type. Midlarsky (1989) alludes to this problem in his introduction to *Handbook of War Studies* where he states, "Although the treatment of war as a generic category has proven useful until now, future research may require the systematic delineation among several categories, each of which may require a separate theoretical treatment." (p. xviii). Making such a delineation with a firm empirical basis requires assembling data about the conflicts to be categorized, and up to this point those data are scattered across a large number of sources.

To acquire a sense of the scope of the phenomenon to be categorized or delineated, I made a quick and surely not exhaustive compilation of types of violent conflicts that various authors have referred to in their writings. That search found 145 different types of violent conflict (Brecke, 1997). Even though a number of the terms refer to the same or essentially the same thing and are primarily attempts by different writers to use slightly different wording for variety's sake, the list illustrated the enormous—even daunting—array of ways in which violent conflict manifests itself.

The variety turns out to be only part of the problem. Worse is that many, even most, of these types of conflict are not clearly specified. We possess criteria with which to consistently allocate particular conflicts to only the crudest categories such as interstate war versus civil war. For more discriminating delineations there exist no agreed-upon characteristics to define them other than things like a peasant revolt is one in which peasants are the main group fighting against the authorities. A categorization of violent conflicts that is empirically grounded is the way to get past that problem. With a taxonomy—a categorization system that is empirically-based as opposed to being a conceptual scheme—we can say with confidence that a conflict of type "A" possesses characteristics "X,Y, and Z." Much more importantly, we can consistently identify the set of conflicts of type "A" from a population of conflicts. The ability to make statements of this sort has two related benefits.

First, theoretical and empirical work to find the causes of violent conflict can consciously focus on very particular types of conflict (more particular than at present) and use very specific examples as the appropriate empirical domain. More importantly for the broader discipline, evaluation of individual research projects with respect to each other will become easier because how they differ from each other in terms of subject matter and empirical grounding will be clearer than it is currently.

Wallensteen and Sollenberg, 1996).

Second, for the related task of trying to find conflict early warning indicators, we can specify that particular combinations of indicators are precursors to specific types of conflicts (that are defined as types by particular combinations of variables embodying their characteristics). In other words, pre-conflict situations can be defined in terms of specific combinations of independent variables while the conflicts they precede can be defined in terms of specific combinations of dependent variables (Ragin, 1987). With the ability to define the conflict early warning problem in this manner, we can reduce if not eliminate the current problem of trying to find consistent early warning indicators for widely disparate conflicts that have been lumped together because there is no system for precisely differentiating them (Brecke, 1998).

Consequently, the goal of this effort is to assemble a dataset that can support the development of a coherent schema, a taxonomy, that orders, differentiates, and relates violent conflicts.

COMPONENTS OF A TAXONOMIC APPROACH

To create a taxonomy of violent conflicts, three main tasks must be completed. The first is to define the population of violent conflicts to be categorized and assemble a sample of that population. The second task is to define the set of variables by which the conflicts can be grouped and differentiated and then to determine for each of the conflicts its value with respect to each of those variables. Both of these tasks are data collection intensive, but they are necessary to build the dataset the third task needs. The third task is to apply clustering techniques to the dataset to find groupings and from that types of violent conflicts. The remainder of this paper will concentrate on the first task.

Violent Conflicts

In this project the term 'violent conflict' is used as shorthand for violent political conflict. Cioffi-Revilla's definition of war for his LORANOW project serves as the definition of violent conflict for this project:

> *A war (a "war event") is an occurrence of purposive and lethal violence among two or more social groups pursuing conflicting political goals that results in fatalities, with at least one belligerent group organized under the command of authoritative leadership.* (Cioffi-Revilla, 1996:8)

This definition combines sufficient generality such that it encompasses a wide variety of types of violent conflict yet at the same time distinguishes violent conflict from other forms of lethal violence such as mob lynchings, gang turf battles, and organized crime vendettas. The line between violent conflict and other forms of lethal violence may be fuzzy at times, but in practice they will probably seldom be confused. While using the term 'war' instead of violent conflict has some appeal because while a gang turf battle, for instance, can be considered to be a violent conflict, 'war' for many

researchers has come to mean a violent conflict with specific properties such as that there have been more than 1000 battle-related deaths. A satisfactory term is difficult; violent political conflict is too wordy and war has certain connotations for some researchers. Despite its faults, violent conflict is used.

Conditions applied to define wars (Singer and Small, 1972) or armed conflicts (Wallensteen and Sollenberg, 1996) such as that at least one group be a government of a state or that all opposing sides be armed or that only battlefield deaths matter for the determination do not apply to the definition of violent conflicts. Consequently, situations such as massacres of unarmed civilians or territorial conflicts between warlords when there is no state involvement qualify as violent conflicts.

Task 1: Assemble The Sample of Violent Conflicts

The potential population of violent conflicts for the construction of a taxonomy is all violent conflicts at any location in the world since 1400 AD in which 32 or more persons have died because of the conflict within the span of a year. Multi-year conflicts are defined by consecutive years in which that threshold of deaths is surpassed. The 32-person threshold makes the population of conflicts correspond to conflicts of magnitude 1.5 or higher according to the Richardson (1960) scale. The magnitude value is the base ten logarithm of the number of people who died; the base ten logarithm of 31.62 is 1.5. The 1400 AD temporal threshold corresponds to the one set by Luard (1987), lies between major dates for Chinese (1366) and European and American (1492) populations, and demarcates a point before which the quality and extent of data about many parts of the world drops off precipitously.

Obviously, the *sample* of cases for which data can be collected is significantly smaller than the population, particularly for conflicts in which the number of fatalities is towards the lower end of the range, for conflicts further back in time, and for parts of the world where written records are not readily available, especially for earlier times. Nevertheless, this population has been set as a goal because:

1) A surprisingly large amount of data for this population of conflicts already exists, albeit in widely scattered sources with only a modest degree of overlap.

2) With the large sample size that can be gathered from this population, we obtain wide variation in the types of conflict and their characteristics while at the same time have the possibility of having a significant number of examples for each type, especially in more general, higher-level groupings. The greatly expanded number of cases made available for statistical analysis will almost certainly reveal new relationships that can contribute to our understanding of the causes of different types of violent conflict.

3) At a more practical level, when extracting conflicts from existing compilations that do not supply fatality figures, it is in many instances difficult to separate those conflicts that have, say, 45 fatalities from those that have 110 fatalities or 350 fatalities until additional sources have been accessed. The marginal additional effort to use the lower threshold is thus minimal, and may even be negative, because the additional sources do not have to be sought in the making of the list of conflicts.

The Conflict Catalog

The Conflict Catalog contains the sample of conflicts that provides the basis for a taxonomy of violent conflicts. It is a computerized dataset that contains a superset of all extant compilations of violent conflicts that have been identified at this time. Assembly of the Conflict Catalog began in 1996 by combining the conflicts from existing computerized war datasets such as Correlates Of War (Small and Singer, 1982), Militarized Interstate Disputes (Jones, Bremer, and Singer, 1996), Great Power Wars (Levy, 1983) and Major-Minor Power Wars (Midlarsky, 1988). From there I added additional conflicts from Richardson (1960), Wright (1965), Sorokin (1937), Luard (1987), and Holsti (1991). Further research has unearthed a large number of other sources containing a plethora of conflicts not listed in those nine sources. In fact, a brief perusal of the additional sources indicates that those nine sources combined contain perhaps one third of the conflicts contained in the entire set of sources that have been identified at this time. (See Appendix A for a listing of conflict compilations that have been identified and in some instances used thus far.)[2]

The sources that have been identified are quite varied in nature. They range from academic research manuscripts to encyclopedias by military historians to historical atlases to historical chronologies. Notable about the Conflict Catalog is that it employs sources produced in other regions of the world that are not in English or other West European languages. The most important of these are major Chinese, Japanese, and Russian compilations that are essentially equivalent to what has been produced by military historians in the West except that they include many violent conflicts overlooked by Europeans and North Americans. In practical terms, the only conflicts not included from previous compilations (with only a small number of exceptions where it is known that less than 32 people were killed) are those that occurred before 1400 AD.

The Conflict Catalog as of this writing contains 3213 violent conflicts. The primary information about each conflict in the Conflict Catalog at this time is very simple: *Who*, *when*,*where*, and *common name* (if one exists) and variables derived from that information. The derived variables are: The number of major actors in the conflict, the duration of the conflict in years, and the duration of the conflict in months (when that can be calculated). For some of the conflicts, 1075 of them to be precise, information regarding the number of fatalities has been added. Over time, the number of conflicts possessing this piece of information will expand as I begin to use more focused historical materials. As this project progresses, the violent conflicts found in the additional sources is being added to the Conflict Catalog. If more sources are found, they will be used. Most new sources are likely to *not* be in the English

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3. One massive compilation among these additional sources never cited is that of Sutton (1972a; 1972b). He attempted to assemble in one place all violent conflicts from 1820 to 1970 in which more than 20 people were killed in order to provide a strong, comprehensive foundation for an empirical analysis of war. Amazingly, he never followed through to get that enormous effort published, and the voluminous manuscripts languish at the Hoover Institution Archives at Stanford.

language. The expected number of conflicts in the Conflict Catalog when the additional sources have been tapped is between 4000 and 4500. A worksheet for documenting the values of the variables for each of the conflicts in the Conflict Catalog has been developed and is being used.

Interim Findings from the Conflict Catalog

This section presents findings from the Conflict Catalog in its current state. The catalog is quite complete with respect to five regions of the world: Western Europe, Eastern Europe, North Africa, West & Central Africa, and East & South Africa for it is unlikely that many additional conflicts will be found for these regions. European conflicts are comparatively so well documented that it is improbable that very many have escaped inclusion in one compilation or another. On the other hand, identifying additional African conflicts would entail a monumental effort.

This presentation of interim findings has two purposes. First, it portrays characteristics of violent conflict in the past 600 years and in the process raises questions about the "received wisdom" regarding violent conflict that we have accepted from earlier, more limited samples. Second, it provides a justification for the tasks described below.

If the 3213 conflicts currently in the dataset are broken down according to the decade in which they began, as is done in Figure 1, one finds a rather interesting pattern. The number of conflicts dips markedly starting in the mid-1600s and remains at a reduced level for almost a century before rising sharply in the 19th and 20th centuries. Of note is that the "worst" decades in terms of new conflicts are the 1890s, 1910s, and 1960's with between 110 and 120 new conflicts for each of those decades.

As one would expect, different regions show different patterns than the global total. Figures 2 and 3 present the 600-year patterns for Europe and Africa, respectively. The two continents exhibit markedly different trends. Europe experienced a general decline while Africa's experience was that of a slow increase until the 19th century when European imperial expansion created a sharp spike peaking in the 1890s followed by a second, smaller spike in the 1960s. It must be noted that it is possible that the number of conflicts in Africa prior to 1800 was significantly higher than presented in Figure 3. However, given the low population densities in Africa during that period, it is unlikely that the discrepancy is so large that the general trend portrayed in that figure is incorrect.
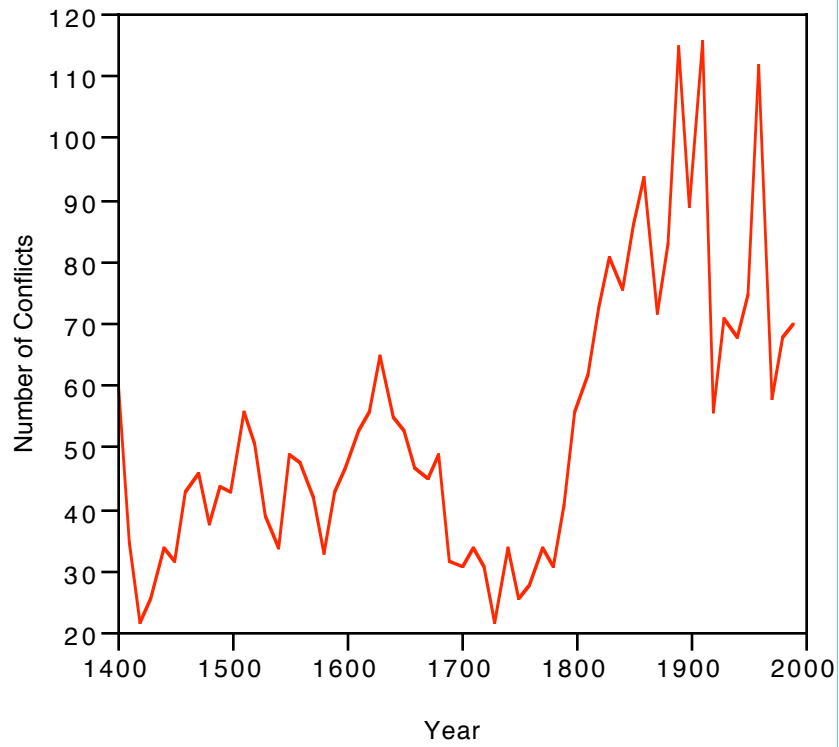
FIGURE 1

Number of Conflicts per Decade
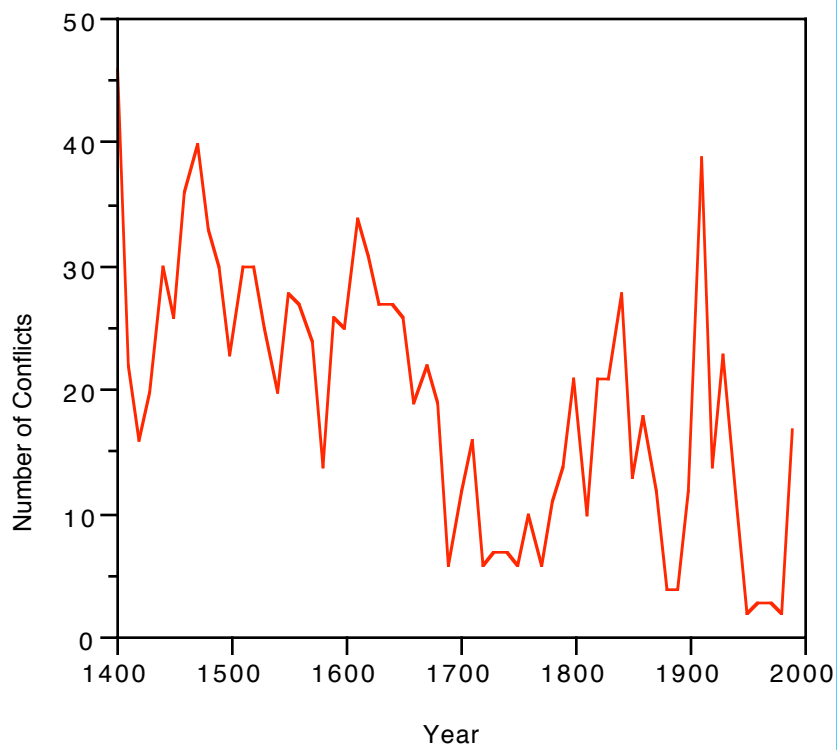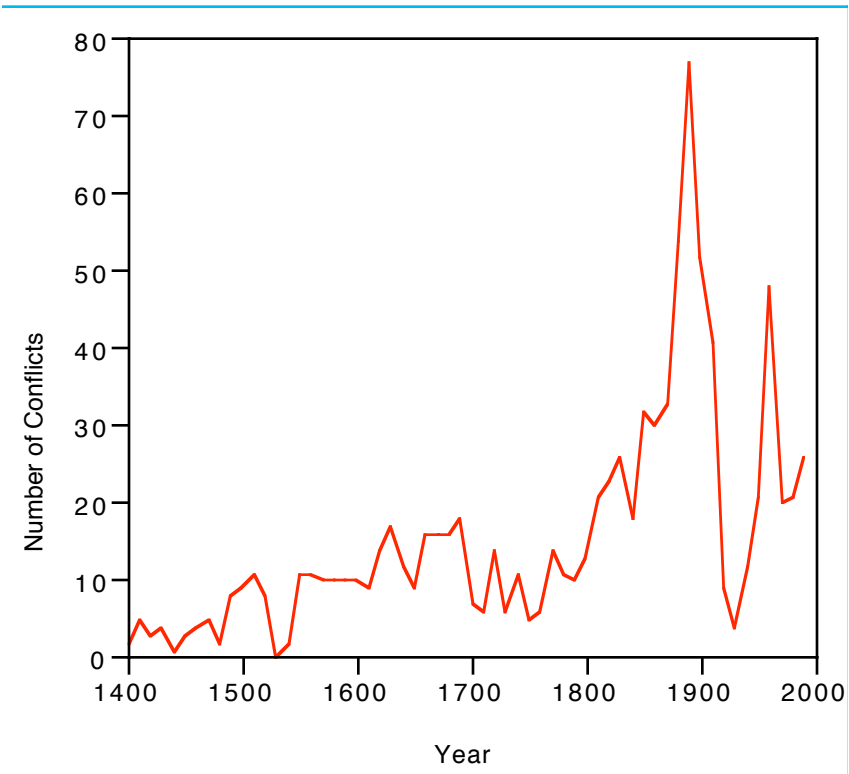
FIGURE 2

Number of Conflicts per Decade

Europe

FIGURE 3

Number of Conflicts per Decade

A f r i c a

So that we may see the geographic breakdown of conflicts, each conflict has been coded as to where it occurred (or at least primarily occurred) in one of 12 regions. The regions and their approximate extent on a current map are:

1. North America, Central America, and the Caribbean
2. South America
3. Europe west of 15 degrees east longitude plus Sweden and Italy
4. Europe east of 15 degrees east longitude (includes Caucusus region)
5. Middle East (Iran west to Syria and Arabian peninsula)
6. North Africa (Egypt to Morocco and Mauritania east to Sudan)
7. West & Central Africa (Senegal to Congo)
8. East & South Africa (Ethiopia to Zambia to Angola and south)
9. Central Asia (Afghanistan, former Soviet republics, and Siberia)
10. South Asia
11 Southeast Asia (Burma to Australia and Pacific islands)
12. East Asia (China, Korea, Japan)

Other regional breakdowns are, of course, possible. This particular set of regions was selected as a tradeoff between precision in location, concordance with regional studies breakdowns, and comprehensibility in graphics.

One of the early findings of this research effort was that if one restricts oneself to the nine original data sources mentioned earlier, one discovers a strong Eurocentric bias in the data, and an especially stark bias for the period prior to 1800. The Conflict Catalog attempts to at least in part correct this disparity as it moves towards completion. Fortunately, many of the sources identified in Appendix A will fill the voids for the different regions. Given that the Conflict Catalog is expected to grow by 1000-1300 conflicts from those sources, we can expect to see a much more even distribution across regions over time.

The continent-level breakdown presented above can be further extended. Figures 4 and 5 portray the number of conflicts in Western and Eastern Europe, respectively, while Figures 6, 7, and 8 delineate the comparable trends for North Africa, West & Central Africa, and East & South Africa, respectively.

FIGURE 4

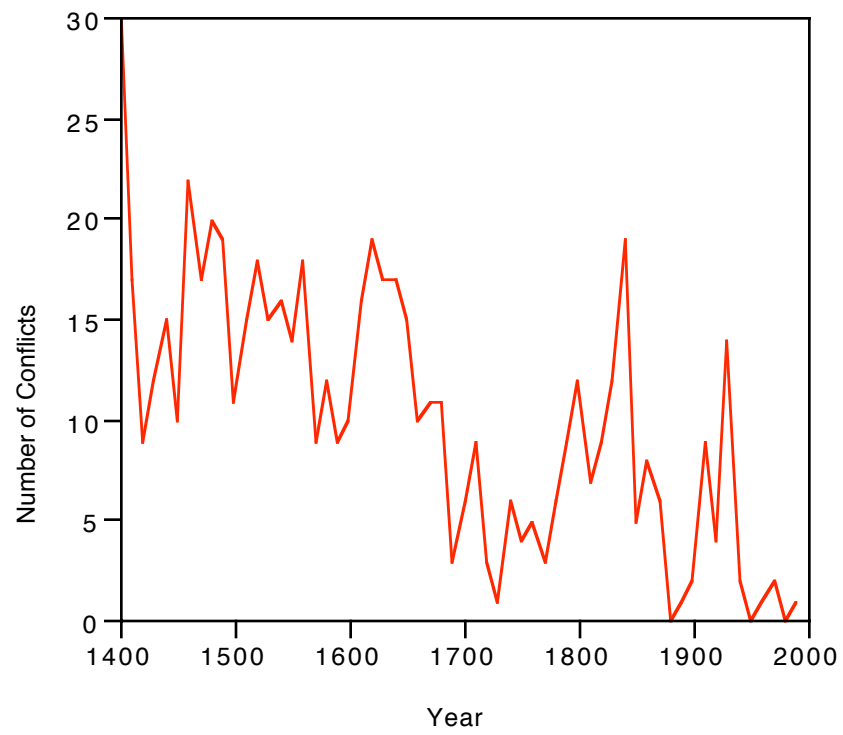**Number of Conflicts per Decade**

Western Europe

FIGURE 5

Number   of   Conflicts   per   Decade
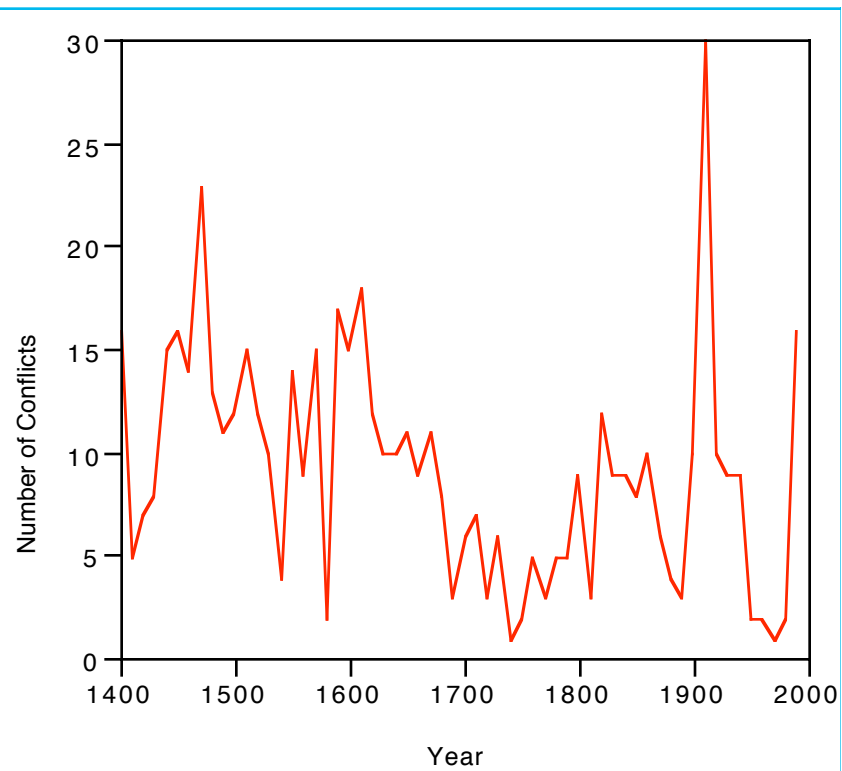
Eastern   Europe

FIGURE 6

Number of Conflicts per Decade

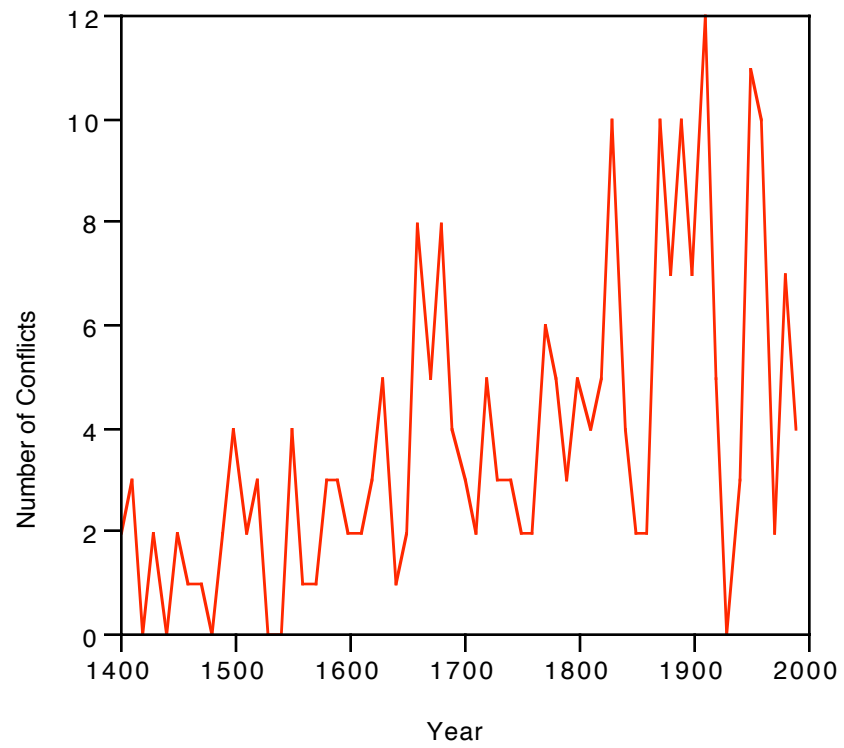**North Africa**

FIGURE 7

Number of Conflicts per Decade
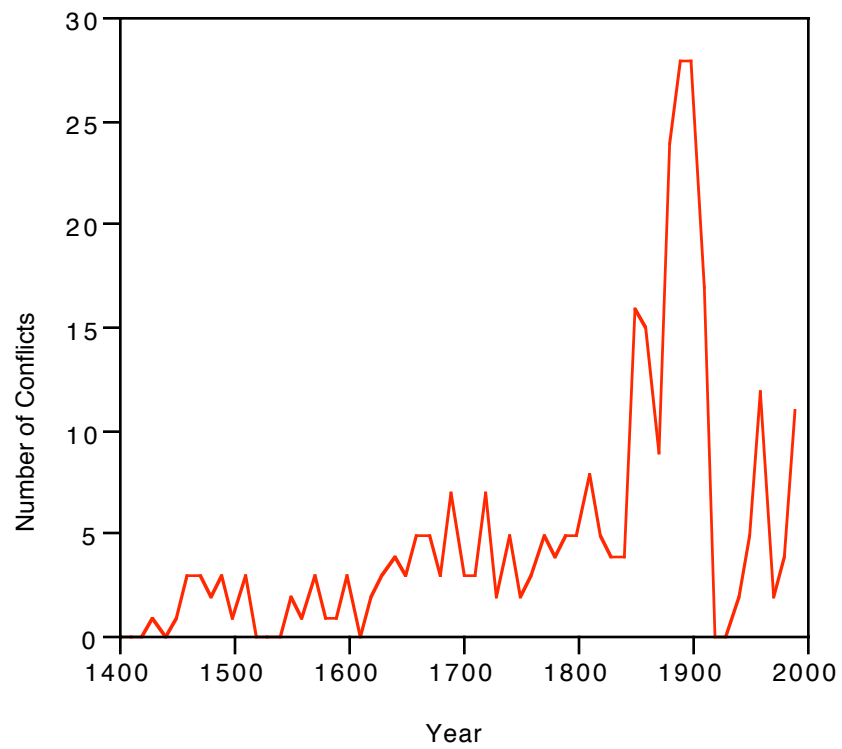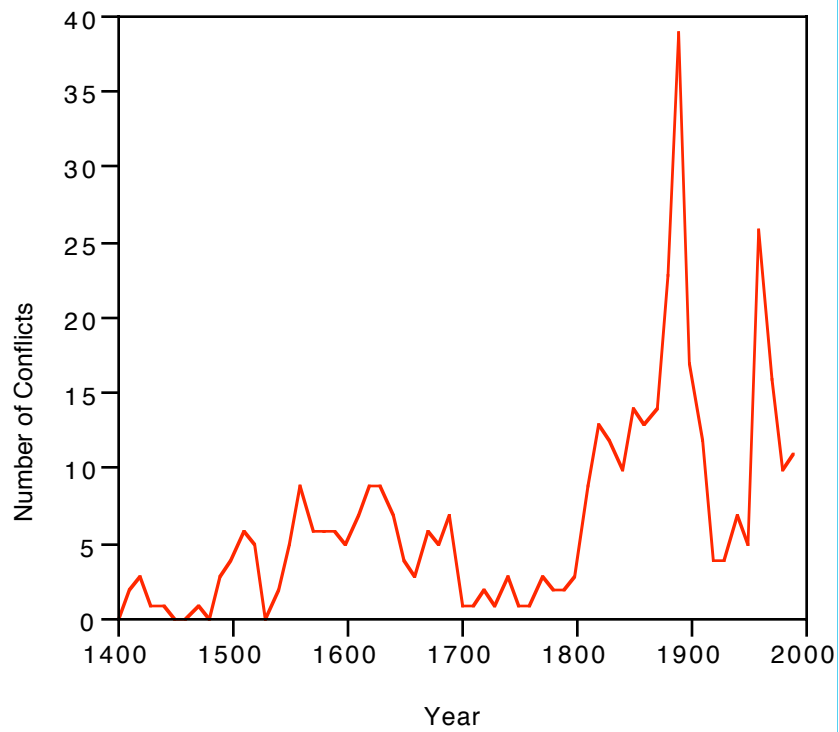
West & Central Africa

FIGURE 8

Number of Conflicts per Decade

East & South Africa

Of note is the stark contrast in the long-term trends. The number of conflicts declines in a clear and rather consistent manner in Western Europe while the decline for Eastern Europe is much less pronounced and even uncertain.

North Africa displays a fairly consistent rise in the number of conflicts until the 20th century when there is a rather vague indication that the rise is over and the ubiquity of conflicts may even be declining. West & Central Africa is dominated by the surge of conflicts associated with European colonial expansion beginning in the 1840s and the subsequent spurt of conflicts associated with decolonization in the 1960s. East & South Africa, like West & Central Africa, evinces the double spikes associated with the colonialization and decolonialization processes, and, like Europe and North Africa, apparently experienced a relatively peaceful 18th century compared to the surrounding periods of time.

The relatively pacific 18th century is a puzzle. Comparably thorough data for other regions have not yet been entered into the dataset, but my translators for the Chinese and Japanese data have without knowing these findings commented to me that the 18th century had relatively few conflicts in those two well-documented countries. One has to wonder why that century is so different. The explanation may be particularly interesting as the phenomenon is global in scale, which would imply that the cause must be global in scale as well. One individual proposed to me that climate change may be the explanatory variable. Namely, there may be a relationship between global temperatures and conflicts operating through an intermediary variable such as food production. Unfortunately, the correlation between global temperatures 1400 AD to the present and the number of conflicts for that time frame is .1152.

In his analysis of Richardson's *Statistics of Deadly Quarrels* (1960), Wilkinson (1980) examined the distribution of war durations in Richardson's dataset. Following a comment by Richardson, Wilkinson tested whether a (declining) geometric progression fit the data. The idea was that short wars would be the most numerous and that longer wars would be progressively and proportionately less common with the number of very long wars dwindling towards zero. Wilkinson did not find a good fit. I (using the JMP statistical package) sorted Richardson's wars by their duration in years and plotted the number of wars at each duration value. From that plot (not presented here) it is easy to see why the fit was disappointing. However, when I performed the same operations on the Conflict Catalog, Figure 9 resulted. Except for a small "bump" at 8 years, the plot serves as an almost textbook example of a curve smoothly and proportionately declining towards zero.

As stated earlier, a primary motivation for this project is to establish a new categorization system for violent conflicts. One outcome we can expect from having such a classification system is that over time and across the globe we should see differences in the prevalence of different types of conflict. Those prevalences should reflect the different circumstances of the times and locales and should be related to other processes such as the expansion of the world economy or decolonization.

A hint of what this will look like can be seen in Figure 10, which portrays for the 20th century conflicts in the Conflict Catalog into whether they were between units exercising effective sovereignty (essentially interstate wars) or they were within units exercising effective sovereignty (essentially civil wars). Figure 10 summarizes that breakdown over time. Notable is that the two types of conflict are approximately equally numerous for the first half of the century, but then civil wars come to dominate. It will be interesting to see how the pattern evolves when the distinction is extended back to earlier centuries.

FIGURE 9

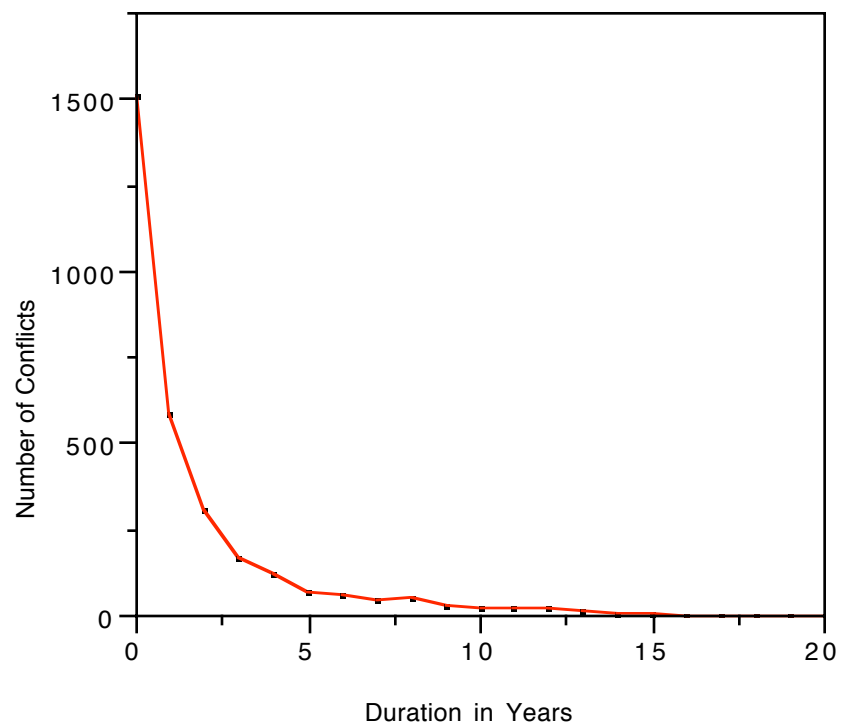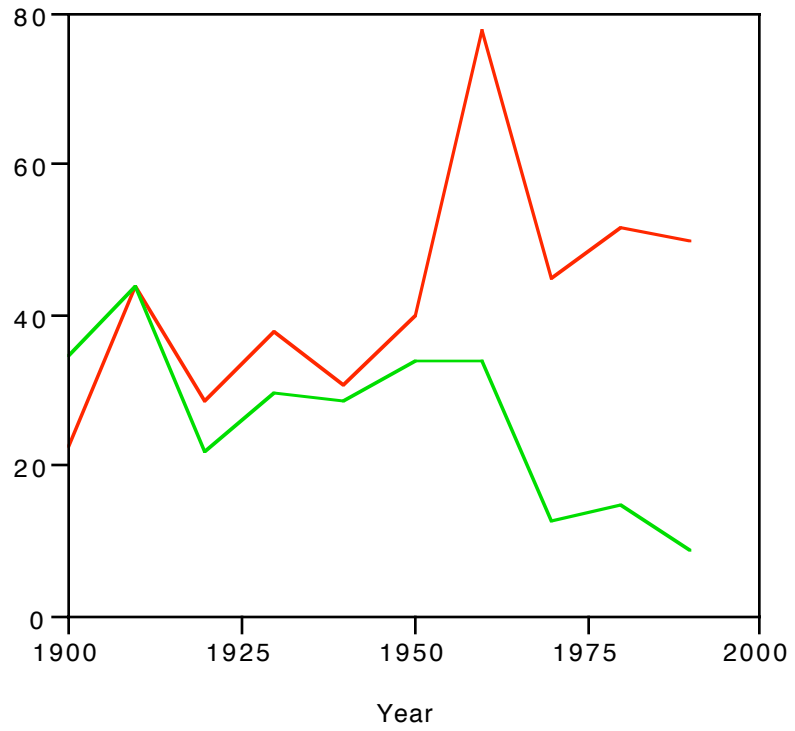**Number of Conflicts**

by Duration in Years

Figure 10

Number of Conflicts in 20th Century

Civil vs Interstate Conflicts

A number of analysts such as Blainey (1973) and Eckhardt (1992) have made the observation that the average duration of wars has decreased over time. Figure 11, which presents the average duration of conflicts by century for the three COW-based datasets, depicts a clear and rather interesting pattern. The average duration clearly declined from the 17th to the 20th centuries, but intriguingly, those datasets also indicate that the duration increased from the 15th to the 17th centuries. Blainey offers a number of explanations for changes in the average duration of wars, and a future paper will explore the validity of those explanations.

Finally, Figure 12 presents the average duration of conflicts by century for the complete set of conflicts in the Conflict Catalog. After a drop from the 15th to the 16th century, the average duration of violent conflicts remained remarkably steady for four centuries before rising somewhat in the 20th century. Since Figure 11 portrays a declining duration for large interstate conflicts, the difference between Figures 11 and 12 implies that at least some other types of conflicts have become on average longer or that new types of conflict have emerged that have a longer average duration than the average duration for all types of violent conflict. This result is an argument in favor of the creation of a new classification system for violent conflicts.

FIGURE 11

Average   Duration   of   Conflicts   by   Century
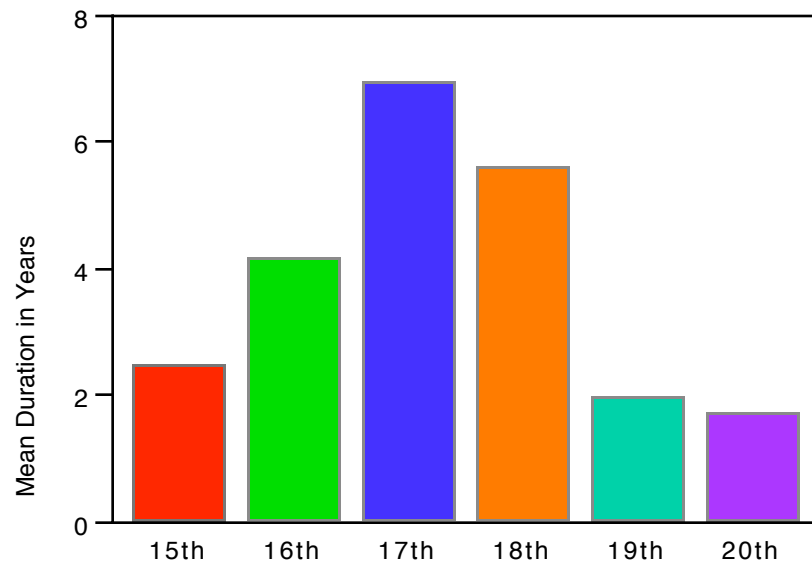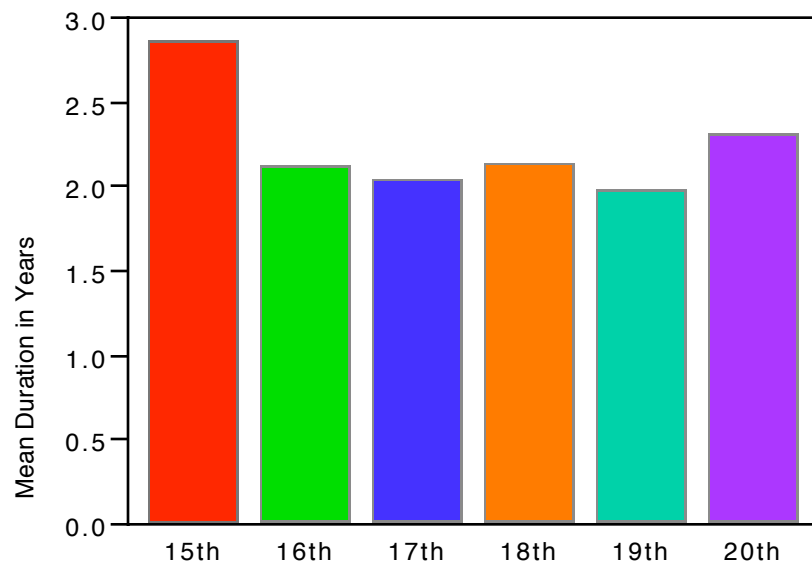
Three   COW-type   Datasets

FIGURE 12

Average Duration of Conflicts by Century

Conflict Catalog

CONCLUSION

The Conflict Catalog being developed in this project will greatly expand the set of violent conflicts available for analysis by researchers in the field of international and comparative politics, political sociology, and political geography. This manuscript has described how it can serve as the foundation for an empirically-based categorization of violent conflicts. The resulting list of shared characteristics held by different groups of conflicts will help researchers searching for the causes of war by giving them both more precise definitions of the traits of violent conflicts and distinct sets of conflicts on which they can concentrate their empirical research. In addition, the data gathered for the Conflict Catalog, while intended primarily for the problem of developing a violent conflict taxonomy, will almost certainly turn out to be useful for examining a large number of other questions about violent conflicts.

Appendix A

Compilations of Violent Conflicts

Dictionaries or Encyclopedias of Wars and Battles

Brownstone, David F. and Irene Franck. Timelines of War: A Chronology of Warfare from 100,000 B.C to the Present. New York: Little, Brown & Company. 1996.

Bruce, George. Collins Dictionary of Wars. Glasgow: Harper Collins. 1995.
(this was formerly Harbottle's Dictionary of Battles, 1966, 1971, 1981 and The Paladin Dictionary of Battles, 1986)

Chandler, David. Dictionary of Battles: the world's key battles from 405 BC to today. New York: Random House. 1991.

Clodfelter, Micheal. Warfare and Armed Conflicts: A Statistical Reference to Casualty and Other Figures, 1618-1991. Vols. 1 and 2. Jefferson, North Carolina: McFarland & Company, Inc.. 1992.

Davis, Paul K. Encyclopedia of Invasions and Conquests: from Ancient Times to the Present. Santa Barbara, CA: ABC-Clio. 1996.

Dupuy, Trevor N., and R. Ernest Dupuy. The Harper Encyclopedia of Military History from 3500 B.C. to the present. 4th edition. New York: Harper & Row. 1993.

Eggenberger, David. An Encyclopedia of Battles: accounts of over 1,560 battles from 1479 B.C. to the present. New York: Dover. 1985.
(this was formerly A Dictionary of Battles, 1967)

Gallay, Allan. Colonial Wars of North America: an encyclopedia, Military History of the United States series, Vol. No. 5. New York: Garland, 1996.

Goldstein, Erik. Wars and Peace Treaties: 1816-1991. New York: Routledge. 1992.

Hogg, Ian. V. Battles: A concise dictionary. New York: Harcourt Brace. 1995.

Keenan, Jerry. Encyclopedia of American Indian Wars: 1492-1890. Santa Barbara, CA: ABC-Clio. 1997.

Kohn, George C. Dictionary of Wars. Garden City, N.Y.: Anchor Press/Doubleday, 1987.

Laffin, John. Brassey's Battles: 3,500 years of conflict, campaigns, and wars from A-Z. Washington, D.C.: Brassey's Defence Publishers, 1986.

Sweetman, John. A Dictionary of European Land Battles: from the Earliest Times to 1945. New York: MacMillan Publishing Company. 1985.

Van Creveld, Martin. The Encyclopedia of Revolutions and Revolutionaries : from anarchism to Zhou Enlai. New York: Facts on File. 1996.

Young, Brigadier Peter, with Brigadier Michael Calvert. <u>A Dictionary of Battles 1715-1815</u>. Vol. 3. New York: Mayflower Books, 1979.

Young, Brigadier Peter, with Brigadier Michael Calvert. <u>Dictionary of Battles 1816-1976</u>. Vol. 4. New York: Mayflower Books. 1978.

<u>Academic Research Works Containing Compilations</u>

Bodart, Gaston. <u>Losses of Life in Modern Wars: Austria-Hungary; France</u>. Oxford: At the Clarendon Press. 1916.

Bouthoul, Gaston, and Rene Carrere. "A List of the 366 Major Armed Conflicts of the Period 1740-1974," <u>Peace Research</u>. Vol. 10, Number 3 (July 1978). pp. 83-108.

Dumas, Samuel, and K. O. Vedel-Petersen. <u>Losses of Life Caused by War</u>. Oxford: At the Clarendon Press. 1923.

Farwell, Byron. <u>Queen Victoria's Little Wars</u>. New York: W. W. Norton & Company. 1972.

Hassig, Ross. <u>Aztec Warfare: Imperial Expansion and Political Control</u>. Norman, OK: University of Oklahoma Press. 1988.

Holsti, Kalevi. J. <u>Peace and War: Armed Conflicts and International Order 1648-1989</u>. Cambridge: Cambridge University Press. 1991.

Holsti, Kalevi J. <u>The State, War, and the State of War</u>. Cambridge: Cambridge University Press. 1996.

Jongman, Albert J. (Ed.). <u>Contemporary Genocides: Causes, Cases, Consequences</u>. Leiden, Netherlands: PIOOM. 1996.

Kende, Istvan, "Wars from 1965 to 1978," <u>Peace Research</u>. Vol. 11, Number 4 (October 1979). pp. 197-199.

Kiser, Edgar, Kriss A. Drass, and William Brustein. "The Relationship Between Revolt and War in Early Modern Western Europe," <u>Journal of Political and Military Sociology</u>. Vol. 22, No. 2 (Winter 1994). pp. 305-324.

Levy, Jack S. <u>War in the Modern Great Power System, 1945-1975</u>. Lexington, KT: the University Press of Kentucky. 1983.

Luard, Evan. <u>War in International Society: A Study in International Sociology</u>. New Haven: Yale University Press. 1987.

Richardson, Lewis F. <u>Statistics of Deadly Quarrels</u>. Pittsburgh: The Boxwood Press. 1960.

Rummel, R. J. <u>Lethal Politics: Soviet Genocide and Mass Murder since 1917</u>. New Brunswick, NJ: Transaction Publishers. 1990.

Rummel, R. J. China's Bloody Century: Genocide and Mass Murder since 1900. New Brunswick, NJ: Transaction Publishers. 1991.

Rummel, R. J. Democide: Nazi Genocide and Mass Murder. New Brunswick, NJ: Transaction Publishers. 1992.

Rummel, R. J. Death by Government. New Brunswick, NJ: Transaction Publishers. 1994.

Small, Melvin, and J. David Singer. Resort to Arms: International and Civil Wars, 1816-1980. Beverly Hills: Sage Publications. 1982.

Sorokin, Pitirim A. Social and Cultural Dynamics: Volume 3: Fluctuation of Social Relationships, War, and Revolution. New York: American Book Company. 1937.

Sutton, Antony. The State, War, and Revolution. (Unpublished manuscript). Probably 1972.

Sutton, Antony. Wars and Revolutions in the Nineteenth Century. (Unpublished manuscript). 1972.

Urlanis, B. Wars and Population of Europe: human losses of the armed forces of the European countries in the XVII-XX century wars. Moscow: Progress Publications. 1960.

Woods, Frederick Adams, and Alexander Baltzly. Is War Diminishing? A Study of the Prevalence of War in Europe from 1450 to the Present Day. Boston: Houghton Mifflin Company. 1915.

Wright, Quincy. A Study of War: Vol. 1. Second edition. Chicago: University of Chicago Press, 1965.

Historical Chronologies and Historical Atlases

Ajaye, J. F. Ade, and Michael Crowder (general eds.). Historical Atlas of Africa. New York: Cambridge University Press, 1985.

Axelrod, Alan. Chronicle of the Indian Wars: From Colonial Times to Wounded Knee. New York: Konechy & Konecky. 1993.

Channon, John, with Robert Hudson. The Penguin Historical Atlas of Russia. London: Penguin Books. 1995.

Freeman-Grenville, G.S.P. Chronology of African History. London: Oxford University Press, 1973.

Freeman-Grenville, G.S.P. Chronology of World History: a calender of principal events from 3000 B.C. To A.D. 1973. London: Rex Collings, 1975.

Freeman-Grenville, G.S.P. Historical Atlas of the Middle East. New York: Simon Shuster, 1993.

Gilbert, Martin. <u>Atlas of Russian History</u>. New York: Dorset Press. 1985.

Grant, Neil. <u>Chronicle of 20th Century Conflict</u>. New York: Smithmark Publishers. 1993.

McEvedy, Colin. <u>The Penguin Atlas of African History</u>. London: Penguin Books. 1995.

Natkiel, Richard, and John Pimlott. <u>Atlas of Warfare</u>. New York: Gallery Books. 1988.

Pluvier, Jan M. <u>Historical Atlas of South-East Asia</u>. New York: E.J. Brill, 1995.

Wilgus, A. Curtis. <u>Historical Atlas of Latin America: political, geographic, economic, cultural</u>. New York: Cooper Square Publishers, 1967.

<u>Works Not in the English Language</u>

<u>History of Wars in China</u>. (Zhongguo lidai zhanzheng shi). Vols. 14-18. Taipei, Taiwan: United Military University of Taiwan. 1972. (in Chinese)

<u>Encyclopedia of Wars and Battles in and Outside of China</u>. (Zhongwai zhanzheng zhanyi dacidian). Changsha, Hunan, PRC: Hunan Press. 1992. (in Chinese)

<u>Dictionary of Wars and Battles</u>. (Zhongwai zhan dian). Beijing: Central National University Press.1993. (in Chinese)

<u>Wars & Incidents: Survey of All Wars, Coup D'etats, and Incidents</u>. (Sensou•Jihen: Zensensou•Kuu Te Taa•Jihen Souran). Edited revised edition. Tokyo: Kyouikusha. 1993. (in Japanese)

Notohisa, Yashida, (Ed.). <u>Small Encyclopedic Overview of Japanese Wars</u>. (Nihonshi Syohyaka•Senran). Tokyo: Konto. 1984. (in Japanese)

Bodart, Gaston. <u>Lexicon of War and Military History</u> (1618-1905). (Militaer-historisches Kriegs-Lexicon). Vienna: C. W. Stern. 1908. (in German)

Bouthoul, Gaston, and Rene Carrere. <u>The Challenge of War,1740-1974</u>. (Le defi de la guerre). Paris: Presses Universitaires de France. 1976. (in French)

Latsinsky, A. S. (Ed.) <u>Chronology of the Global History of Wars</u> with reference to the major facts of socio-political and cultural history, 4400 BC - 1900 AD. St. Petersburg: Military Printing House. 1901. (in Russian)

Shavrov, I. E. (Ed.). <u>Local Wars: History and Modern Times</u>. Moscow: Military Publishing House of the Ministry of Defense of the USSR.. 1981. (in Russian)

<u>Other</u>

SIPRI. <u>SIPRI Yearbook of World Armaments and Disarmament, 1968/69</u>. New York: Humanities Press. 1969.

SIPRI. <u>SIPRI Yearbook: World Armaments and Disarmament</u>. New York: Humanities Press. 1986 to 1993 editions.

SIPRI. <u>SIPRI Yearbook: Armaments, Disarmament and International Security</u>. New York: Humanities Press. 1994 to 1996 editions.

Sivard, Ruth Leger. <u>World Military and Social Expenditures</u>. Leesburg, VA: WMSE Publications. 1985, 1987-88, 1991, 1993, 1996 editions.

Wallensteen, Peter, and Karin Axell. "Armed Conflict at the End of the Cold War, 1989-92," <u>Journal of Peace Research</u>. Vol. 30, No. 3. 1993. pp. 331-346.

Wallensteen, Peter, and Karin Axell. "Conflict Resolution and the End of the Cold War, 1989-93," <u>Journal of Peace Research</u>. Vol. 31, No. 3. 1994. pp. 333-349.

Wallensteen, Peter, and Margareta Sollenberg. "After the Cold War: Emerging Patterns of Armed Conflict 1989-94," <u>Journal of Peace Research</u>. Vol. 32, No. 3. 1995. pp. 345-360.

Wallensteen, Peter, and Margareta Sollenberg. "The End of International War? Armed Conflict 1989-95," <u>Journal of Peace Research</u>. Vol. 33, No. 3. 1996. pp. 353-370.

Wallensteen, Peter, and Margareta Sollenberg. "Armed Conflicts, Conflict Termination, and Peace Agreements, 1989-96," <u>Journal of Peace Research</u>. Vol. 34, No. 3. 1997. pp. 339-358.

BIBLIOGRAPHY

Blainey, Geoffrey. 1973. *The Causes of War*. New York: The Free Press.

Bouthoul, Gaston, and Rene Carrere. 1978. "A List of the 366 Major Armed Conflicts of the Period 1740-1974," *Peace Research*. Vol. 10, Number 3 (July). pp. 83-108.

Brecke, Peter. 1997. "Beyond Typologies: A Taxonomy of Violent Conflicts," Paper presented at the Annual Convention of the International Studies Association, Toronto, March 18-22.

Brecke, Peter. 1998. "Finding Harbingers of Violent Conflict: Using Pattern Recognition to Anticipate Conflicts." *Conflict Management and Peace Science*. Vol. 16, No. 1 (Spring). pp. 31-56.

Cioffi-Revilla, Claudio. 1996. "Origins and Evolution of War and Politics." *International Studies Quarterly*. Vol. 40, No. 1 (March). pp. 1-22.

Eckhardt, William. 1992. *Civilizations, Empires and Wars: A Quantitative History of War*. Jefferson, NC: McFarland & Company, Inc.

Geller, Daniel S. And J. David Singer. 1998. *Nations at War: A Scientif Study of International Conflict*. New York: Cambridge University Press.

Holsti, Kalevi J. 1991. *Peace and War: Armed Conflicts and International Order 1648-1989*. New York: Cambridge University Press.

Jones, Daniel M., Stuart A. Bremer, and J. David Singer. 1996. "Militarized Interstate Disputes, 1816-1992: Rationale, Coding Rules, and Empirical Patterns." *Conflict Management and Peace Science*. Vol. 15, No. 2 (Fall). pp. 163-213.

Kende, Istvan. 1979. "Wars from 1965 to 1978," *Peace Research*. Vol. 11, No. 4 (October). pp. 197-199.

Levy, Jack S. 1983. *War in the Modern Great Power System, 1495-1975*. Lexington, KY: The University Press of Kentucky.

Luard, Evan. 1987. *War in International Society: A Study in International Sociology*. New Haven, CT: Yale University Press.

Midlarsky, Manus I. 1988. "Theoretical Foundations for the Collection of Major Power-Minor Power War Data." *International Interactions*. Vol. 14. pp. 187-190.

Midlarsky, Manus I. (Ed.). 1989. *Handbook of War Studies*. Ann Arbor, MI: University of Michigan Press.

Ragin, Charles C. 1987. *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Berkeley: University of California Press.

Richardson, Lewis F. 1960. *Statistics of Deadly Quarrels*. Edited by Quincy Wright and Carl C. Lienau. Pittsburgh: The Boxwood Press.

Singer, J. David, and Melvin Small. 1972. *The Wages of War, 1816-1965: A Statistical Handbook*. New York: Free Press.

Small, Melvin, and J. David Singer. 1982. *Resort to Arms: International and Civil Wars, 1816-1980*. Beverly Hills, CA: Sage Publications, Inc.

Sorokin, Pitirim A. 1937. *Social and Cultural Dynamics: Volume 3: Fluctuation of Social Relationships, War, and Revolution*. New York: American Book Company.

Sutton, Antony. 1972a. *The State, War, and Revolution*. (Unpublished manuscript).

Sutton, Antony. 1972b. *Wars and Revolutions in the Nineteenth Century*. (Unpublished manuscript).

Wallensteen, Peter, and Margareta Sollenberg. 1996. "The End of International War? Armed Conflict 1989-95." *Journal of Peace Research*. Vol. 33, No. 3. pp. 353-370.

Wilkinson, David. 1980. *Deadly Quarrels: Lewis F. Richardson and the Statistical Study of War*. Berkeley: University of California Press.

Wright, Quincy. 1965. *A Study of War: Vol. 1*. Second edition. Chicago: University of Chicago Press.