POLITICS, IDEOLOGY AND THE DEVELOPMENT OF MODERN GEOGRAPHY IN CHINA[1)]

With 3 figures and 4 tables

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Zusammenfassung: Politik, Ideologie und die Entwicklung der modernen chinesischen Geographie

Die Entwicklung der modernen chinesischen Geographie in ihrem historischen Kontext ist zentrales Thema dieses Beitrages. Betont wird der Einfluss von ideologischen und politischen Strömungen auf die Entwicklung der (geographischen) Wissenschaft. Dabei können drei klare Phasen unterschieden werden: 1. Die moderne Phase der Geographie, die zunächst stark vom Westen geprägt wurde, dann eine institutionelle Entwicklung und eine Verbreitung im Hinterland erfuhr; 2. Eine Phase der Neuordnung und Isolation nach der Gründung der Volksrepublik China, zunächst unter sowjetischem Einfluss, die in der Kulturrevolution stagnierte; 3. Die gegenwärtige Phase der chinesischen Geographie, die geprägt ist von zunehmender Offenheit der internationalen Wissenschaftsszene gegenüber, ähnlich der modernen Phase. Indikatoren für die Veränderungen sind auf der institutionellen und auf der inhaltlichen Ebene zu finden. Im Lichte dieser raschen Veränderungen innerhalb nur eines Jahrhunderts wird eine Reflexion über die Objektivität der Geographie versucht, die den erweiterten Kontext von Wissenschaft, d.h. ihre Einbettung in eine politische und ideologische Umgebung, berücksichtigt.

Summary: This contribution discusses the development of modern Chinese geography within its historical context. Special emphasis is put on the influence of ideological and political currents on the development of (geographical) science. In this light, three distinct, yet interconnected phases of modern Chinese geography are distinguished: 1. Modern phase of geography, which was initially influenced by the West, then started to develop an institutional structure of its own and spread from the coastal cities to the Chinese hinterland, always under the influence of the changing political tides at work; 2. A phase of reorganisation and isolation after the founding of the People's Republic of China (PRC), first under intensive Soviet influence, then culminating in a near total standstill during the Cultural Revolution; 3. Finally, the Contemporary phase of geography, which is once again characterized by an increasing openness to the international scientific community, similar to the first phase. Indicators of change are found on the institutional level and on the contents level of geographical science. In the light of these rapid changes within one century, a reflection of the objectivity of geographical science is attempted which includes the extended context of science, i.e. its embedding in the political and ideological environment.

1 Introduction

Recent years have seen an increase in differentiated analysis of the historical development of geography with varying national and thematic foci. The purpose of studying the history of geography has been defined as "to further the understanding of what geographers do and how and why they do it" (STODDART 1981, 4–5). This seemingly simple statement conceals an immensely complex network of influential factors which contribute to the development of the discipline, as STODDART (1981, 1) elaborates: "[…] The history of geography is more than simply the chronological listing of the achievements of a few great scholars arrayed in national schools, and […] both the ideas and the structure of the subject have developed in response to complex social, economic, ideological and intellectual stimuli".

Thus closely linked to society, politics and, ultimately, ideology, the question of the objectivity of geography as a science arises. HEINRICH (1991) has demonstrated that despite scientific methods, objectivity is impossible to achieve. In his study about German geography from 1920–1945, he points out that scientific research generally does not aim at an absolute truth and cannot be separated from the realm of politics, and that academic discourse of geographers has simultaneously been political discourse. SANDNER, too, has seen the need "to consider the political sphere of the respective time as defined by patterns of thought and action, and also the functionality and the instrumentalization needed for inward and outward legitimation. The institutional framework and its interaction with the political sphere has to be considered as well" to gain sufficient understanding of development processes (SANDNER 1988, 121). In the following, "academic discourse" will be abstracted to read "science", and "political discourse" will read "ideology" viz. "policy".

[1)] This contribution is based on the author's M.A. thesis (Bonn 2001) which is published under: HAUSHERR, I. B. (2003): Die Entwicklung der chinesischen Geographie im 20. Jahrhundert – ein disziplingeschichtlicher Überblick. Bremer Beiträge zur Geographie und Raumplanung 40. Bremen.

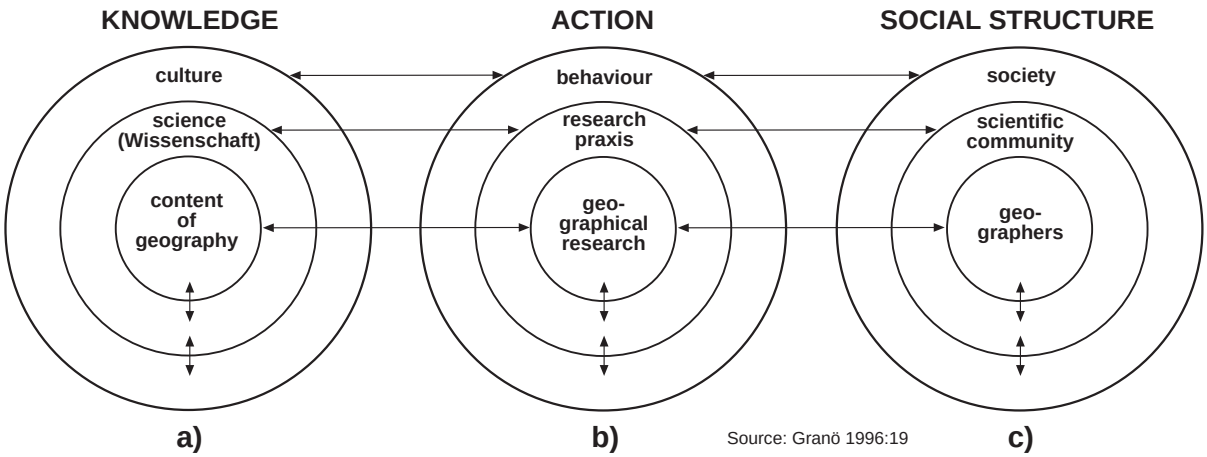


Fig. 1: The context of geography
Der Kontext der Geographie

Of the various approaches to study this historical development, the contextual approach[2)] in its wider sense seems to be the most promising in order to gain an understanding of the processes of development and change. The aim of this essay is to reconsider the mirroring parallels of geography and society/politics/ideology for the case of China, and to link them to the question of objectivity in science. Possibly no other "national geography" is reflected by, and itself in turn reflects, its social environment better and more clearly than that of China – and thus opens a fresh view on the relationship of science and ideological environment in any society. The essay will follow the chronology of historical events for a better overview – albeit thereby suggesting a simple linear relationship – and will mainly focus on institutional history based on the supposition that "every institutional form which a science takes is a manifestation of the relationship between society and that science" (GRANÖ 1996, 19). However, where appropriate, a discussion of non-institutional aspects shall serve to complement the analysis, as suggested by figure 1.

Figure 1 illustrates how "geography can be viewed in three ways: [a] an originally unorganized body of knowledge from which has developed the *scientific content* of geography, [b] practical action, from which *research praxis* has evolved, and later [c] a social institution, a *discipline*. No distinction should be made between these three since knowledge and the increase in knowledge are bound to the individual scholar, who in turn belongs to a given social group. The variations that occur in these three components over time constitute the history of geography" (GRANÖ 1981, 18).

2 General discussion and definitions for the case of China

According to GRANÖ (1981), society constitutes an external influence for science, as opposed to science's own network of institutions which forms an internal factor. In the following, an attempt at assessing this relationship for the case of China will be made.

"As a social community, geography has had to adapt itself through the actions of its administrators" (GRANÖ 1996, 19). In China, these administrators were inevitably Communist Party members and thus directly connected to politics as manifested by the Party. As in the West, the "institutional framework has conferred upon geography the right to its own internal development" (ibid.). This development in China was clearly shaped by ideology and politics.

Ideology is defined as "a systematic body of beliefs about the structure and working of society that includes a program of practical politics based on a comprehensive theory of human nature and requiring a protracted social struggle to enact" (EB). In the following, the social struggle and the theory of human nature underlying will not be discussed. In the People's Republic of

[2)] "This […] approach suggests that society – via the state – dictates both the structure of scientific activity and the contents of the individual disciplines" (JOHNSTON 1984, 3). For a discussion of various approaches, cf. JOHNSTON 1984. For a detailed discussion of the contextual approach, cf. BERDOULAY 1981.

China, the "body of beliefs" is represented by Communism, from 1955 until 1976 in the specific form of Maoism. "Practical politics" in the form of general policies (five-year-plans) and national strategies differed and are briefly summarised in table 1. Each shift in policy also represented a slight shift in ideology in a continuous struggle for power between more moderate Communists and more radical Maoists.

3 Historical analysis

The course of development of Chinese geography (geography in the following) can briefly be divided into four broad periods: classical or traditional (*gudai*) geography until 1895, modern (*jindai*) geography (1895–1949), a phase of reorganization and isolation (1949–1976), and contemporary (*xiandai*) geography. Pre-modern geography differed considerably from Western geography. Western influences reached China by way of Jesuit padres, especially, who spread geographical knowledge in China and may be considered to have paved the way for Western influence in the 20th century. These influences shaped modern geography – and, incidentally, ideology[3)] – and triggered ideological problems within the field in the context of the superseding political circumstances in China. The three periods following 1895 will thus be examined more closely for the relationship of science and ideology/politics.

Generally, modern science in China can be traced back to the year 1895, when China was defeated in a war by Japan after decades of military and political humiliation by foreign powers. 1895 marks a radical change in policy in favour of reform to strengthen the

Table 1: Brief overview of main events and policies in modern Chinese history

Kurzer Überblick über wichtige Ereignisse der modernen chinesischen Geschichte

Year	Policies, main political events
1921	Chinese Communist Party (CPC) formed in Shanghai, cooperates with nationalist party Guomindang (GMD; formed 1912)
1927	GMD / Chiang Kaishek attacks CPC, beginning of Civil War between CPC and GMD-government
1931–1935	Long March (from South to North)
1937–1945	Sino-Japanese War; cooperation of CPC and GMD
1946	Civil War (CPC vs. GMD), resulting in defeat of GMD in 1949
1949	People's Republic of China (PRC) proclaimed
1949–1952	Reconstruction and consolidation of PRC (land reform to free agricultural potential)
1953–1957	Transition to socialism = 1st Five-Year-Plan (specifically: industrialization (heavy industry) explicitly modelled on Soviet experience and guided by strong government apparatus; collectivisation)
1955	Beginning of "Maoism"
1958–1960	Policy of "Three Red Banners", incl. Great Leap Forward, radicalisation of policy, establishment of communes
1959–1961	Famine disaster
1960	Breach with Soviet Union
1961–1965	Readjustment and reaction; rise of more liberal elements in the Party (e.g. Deng Xiaoping, Liu Shaoqi – "Pragmatists")
1966–1976	Cultural Revolution = an ideological struggle for power between Mao and the liberal Communists as well as a campaign against 'bourgeois' intellectuals, elites and bureaucrats
1969–1976	Slow reassertion of influence by the "Pragmatists" (Zhou Enlai)
1972	President Nixon visits Beijing; "Ping-pong-diplomacy"
1976	Death of Zhou Enlai, Mao Zedong
1976–1978	"Four Modernizations" (agriculture, industry, science, military) to raise standard of living; "Open Door Policy"
1979–1980	Reforms begin; change from correct politics to accent on economic progress, emphasis on light industry
1979	"Peking Spring", "Democracy Wall": open debate on political and cultural issues
1981–1985	6th Five-Year-Plan: greater integration into international trade system, foreign technology is increasingly seen as the basis for modernization. Communes abolished
1986–1990	7th Five-Year-Plan: priority given to coastal areas, expansion of trade
1989	Tian'anmen-incident
1992	Declaration of socialist market economy by Deng Xiaoping
1997	Death of Deng Xiaoping, return of Hongkong to China
2000	Strategy of "Great Development of the West"
2001	World Trade Organisation – membership

(Main sources: NEB 16; CANNON a. JENKINS 1990)

country by learning from the West, in the context of this article most notably on the education sector (NEB 18). Several reforms allowed western-style education to be established China, and the contemporary observer Owen LATTIMORE (1962, 11–12) hints at some of the complex situation: "In 1901 […] my father went out to China to teach in a new program of general Western education adopted by the Chinese government – then still the Manchu empire. The necessity for this program had become pressing only after the Boxer Rising of 1900 and China's disastrous defeat. Until then, Western education for the Chinese had been almost a monopoly for the Christian missionaries […]". The new educational style triggered a veritable exodus of Chinese students overseas, who in turn brought back new ideas and methods to China (YEUNG a. ZHOU 1991). The developments eventually culminated in the May-Fourth-Movement in 1919 with cries for democracy and science (XIONG 1984). Thus, from the beginning, science in China was prone to ideology due to the political background before which it was introduced. In this form, science had not "grown" or evolved but was a "commodity", as CAO (1999) also notes in his analysis of the "Defect in Chinese Society and Culture and the Loss of Scientific Spirit."

3.1 Rise of modern geography

3.1.1 Early developments

Foreign expeditions had their share in the development of Chinese geography, scientifically (cf. Sven Hedin's lecture held before members of the China Earth Science Society in 1930, translated and published in the magazine *Dixue Zazhi/ Geographical Magazine*; cf. 3.1.2.; ZHANG 1999; CHRONOLOGY; YANG 1988) and also politically.

The main driving force in the development of modern Chinese geography, however, was a scholar named Zhang Xiangwen (1866–1933). He was educated according to the Confucian tradition and became interested in geography at the age of 28 because of a political event[4], quite in accordance with the common spirit of trying to strengthen the country by studying Western science. He read geographical books, among them an "Introduction to Geography" (*Dili beishuo*) which was published by a Catholic mission in Shanghai (ZHANG 1999). Because of his interest in educational work, he proceeded to write the first two modern geography textbooks in 1901 which played an essential role in the spread of basic western geography as they sold more than two million copies (CHEN et al. 1992). In 1908 he followed up with his most influential work on physical geography, *Diwenxue*, which in its holistic approach to the various geographical spheres has been compared to Emmanuel de Martonne's *Traité de géographie physique* (1909) (CHEN et al. 1992; YANG a. CAO 1990). This book was viewed by its readers as a guide to reforming classical Chinese geography (ZHANG 1999).

Zhang Xiangwen's most important achievement, however, was the foundation of the first Chinese geographical association, the China Earth Science Society (CESS), in 1909. The founding date of this society is commonly cited as the "birth date" of modern Chinese geography (cf. e.g. LIN 1982). In the statutes, the aim of the CESS was defined as follows: "This society sets its goal to uniting comrades and to study the geography of China, as well as that of other countries of the world; we shall not be concerned with other issues outside of this scope" (LIN 1982, 155 – own translation[5]). The CESS was the first institution to combine and focus the efforts of Chinese geographers (LIN 1982).

Most pioneers of Chinese geography seized the opportunity to study abroad with the prospect of receiving high governmental posts upon return in accordance with the plan to use Western knowledge to restore China as a viable nation. Thus, Western education originally carried a political purpose. These students "were initially perceived as the saviours of China" (WANG 1991, 294). However, as intellectuals became increasingly critical of Chinese politics, they "were eventually expelled from the political arena" and were left on their own to struggle for the restoration of the country (WANG 1991, 294). WANG Yichu (1966, 393), too, has observed that towards the end of the initial phase of modern scientific development in China "perhaps the most significant phenomenon is the emergence of an elite group whose interest was exclusively scientific, as distinguished from social or political."

For this earliest phase of modern geography and science in general, however, WANG (1966, 392–393) notes that "pioneers […] devoted themselves more to organizing and teaching than to research. [… For example, Ding Wenjiang, founder of Chinese geology and one of] the oldest, was also the most politically oriented. Although he was an excellent scientist and could have made significant contributions, his time was largely

[3] Marxist philosophy entered China in 1899, e.g. via Japan (SPENCE 2001).

[4] The handing over of Taiwan to Japan in 1894 (ZHANG 1999)

[5] The original text was not available, quoted from secondary source.

consumed by politics." The same holds true for Zhang Xiangwen, whose life, like Ding's, also "illustrates a transitional type between scholar-moralist of old and the specialist of modern society" (ibid.).

3.1.2 Further development and organisation

During the 1920s, the nationalist Guomindang (GMD) government took strict measures to promote natural sciences instead of liberal arts, hoping that this would finally help to improve and strengthen the country (NEB 18). In addition, "the dream of saving China with foreign-educated personnel fell into discredit after 1925 […and] the noble goals of foreign study gradually yielded to personal ambition" (WANG 1991, 297). In the wake of these developments, the Academia Sinica, predecessor of the Chinese Academy of Sciences (CAS), was founded in 1928.

This turn towards a more nationalistic mood was captured in an account by the German explorer Walter STÖTZNER (1927) when he described how the members of a society equivalent to contemporary European Academies of Sciences were all strong nationalists („stramme Nationalisten") who had received European education and maintained that the honour and glory of scientific results from remote regions of their country could just as well be achieved by themselves. Thus, they reserved the full rights to control any scientific material and results from foreign expeditions, among them also Sven Hedin's.

Another early result of this policy may be the founding of the first proper chair of geography by Zhu Kezhen (1890–1974) at Southeastern University[6] in 1921. Zhu had begun engineering studies in 1909, but in 1910 received a scholarship from the Qing government to study in the United States, ultimately pursuing a doctoral degree at Harvard in meteorology under the tutelage of Robert De C. Ward, where he was also influenced by William Morris Davis and Ellsworth Huntington (YANG 1988).

Zhu Kezhen was also responsible for the founding of the Geographical Society of China (*Zhongguo Dili Xuehui*; GSC) in 1934, following the death of Zhang Xiangwen, founder of the CESS. The GSC was hosted by the Nanjing Central University and took over many members of the CESS. Until today it remains the largest and most influential geographical association in China. Its main task was to publish *Dili Xuebao* (*Acta Geographica Sinica*, AGS), the oldest still existing geographical journal in China, until it adopted a more normative function in 1936 by formulating eleven core issues of geographical research (e.g. surveys along railway routes, industrial centres and agrarian production, regions of ethnic diversity – cf. CHRONOLOGY). The policy of the GSC is summarized in the following statement: "The Council of the Geographical Society of China is quite aware of its task and mission, which is to place the scientific study of geography in a solid footing, and also of the necessity to promote international cooperation […] in order to heighten the level of this science. Contact with the viewpoints and thought of our fellow workers abroad will help us keep properly equipped for service in the new era" (CHANG 1944, 62). The GSC's representatives' work abroad was mainly responsible for China's acceptance as a member to the IGU in 1949.

Another significant development in this period was the foundation of colleges and universities with the help of foreign experts or based on foreign systems, contrary to the prevailing nationalistic mood which did not go so far as to completely bar foreign influences. Most Chinese universities followed the American or British system. In Canton, the Geographical Institute of Sun Yatsen-University was founded in 1929 based on the German system and syllabus, and until 1932 it was led by German geographers (SITU 1999; KOLB 1983). Studying abroad was encouraged and ties to and exchanges with foreign institutions were strong (SITU 1999).

3.1.3 Sino-Japanese War and Civil War

The war with Japan between 1937 and 1945 put an end to the dynamic development of the modern period which was characterised by a somewhat cosmopolitan mood of discovery and arising self-confidence amidst political turmoil. However, the war also served to carry a few of these developments into the Chinese hinterland, i.e. into the West which so far had not profited from the developments taking place in the Chinese coastal cities. Most institutions moved from the coastal areas to the hinterland to be able to continue their work, even if in a reduced form, while their home locations were invaded by the Japanese (Fig. 2). When the war ended, most institutions moved back, but several "branches" in the hinterland became autonomous

[6] This University has a complicated naming history: before 1920, it was called "Higher Normal College of Nanjing", then became "Southeastern University" until 1927, when its name was changed to "4th Sun Yatsen University" until 1928. From 1928 to 1949, it was known as "Central University". Since the foundation of the PRC in 1949 it is called "Nanjing University".

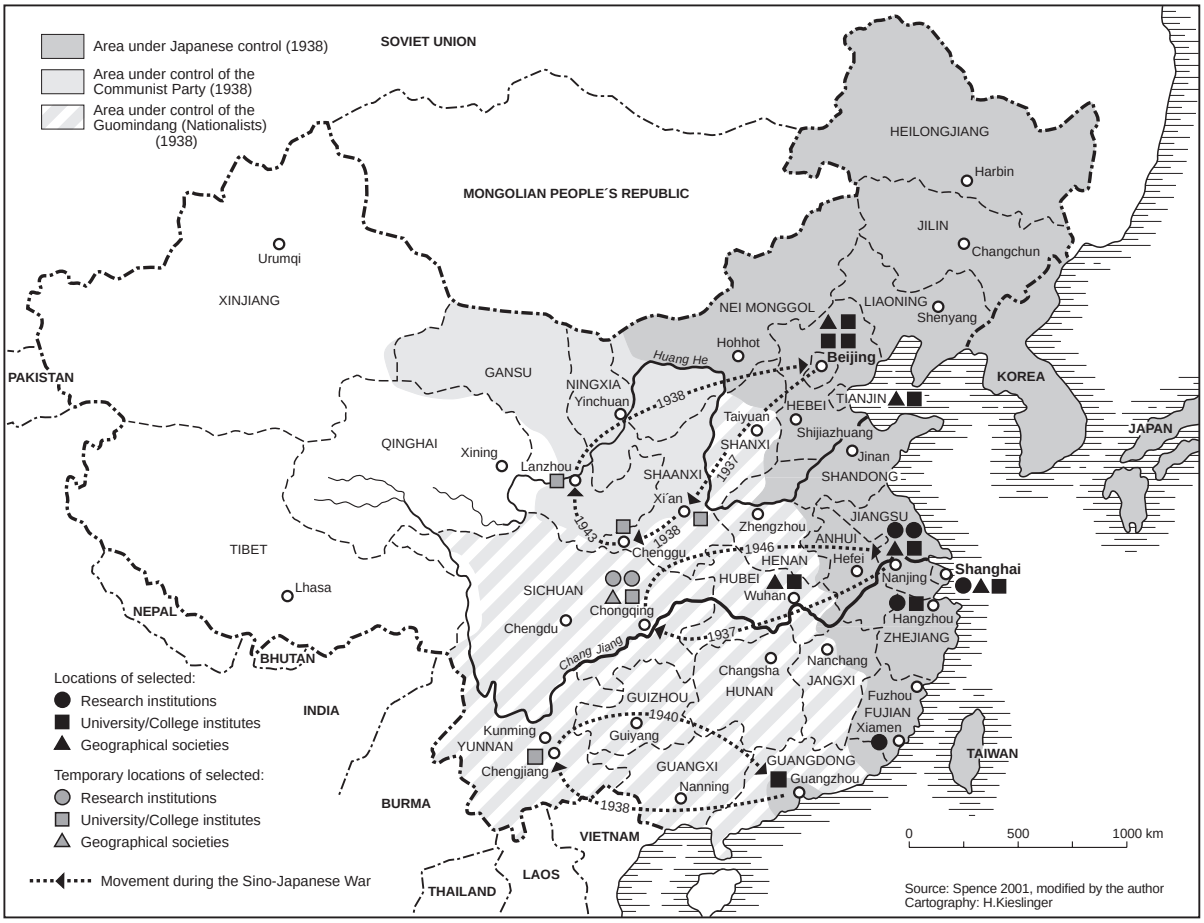


Fig. 2: Effect of the Sino-Japanese War on selected geographical institutions
Die Auswirkungen des Sino-Japanischen Krieges auf ausgewählte geographische Institutionen

institutes, such as the Institute of Geography of Xibei Normal University in Lanzhou which remained when the exiled Beijing Normal University moved back to Beijing in 1946 (SONG 1998).

In 1940, the first autonomous (neither belonging to a university nor part of Academia Sinica) geographical research institution was founded in Chongqing: the China Institute of Geography (CIG). It is quite possible that its founding is connected to the exile of Central University to Chongqing after 1937. The CIG conducted four major expeditions with the purpose of regional exploration until 1942; after 1943, financial difficulties caused activities to cease and scientists to leave the institute. In 1947, it was moved to Nanjing, where is was incorporated into the GMD-government's Ministry of Education (CHEN et al. 1992).

3.2 Reorganization and stagnation

3.2.1 1949–1960: Soviet influence

After the foundation of the PRC, the consolidation of Communism began. All reaches of society were reorganized to suit the needs of building a communist nation according to the plan of total revolution as exemplified by the Soviet Union. This revolution also encompassed science, and geography, at all levels according to Stalin's view that "science cannot be divorced from the People", that "the People's scientists must be conscious of defining their goals to improve the lives of the People, to transform society and nature"[7] (SUN 1953, 1). "The communist regime attempted to […] create a new people, a new culture, and a new place […]. The educated were viewed as barriers, remnants of the old elitist legacy" (WANG 1991, 300). SITU (1999) describes the mechanism of change for geography: first, all Western geographical theories

[7] Own translation.

(e.g. determinism, Malthus' population theory) had to be 'criticized'. At the same time, Soviet geography was imported: Soviet textbooks were translated, Soviet geographers came as teachers, students were sent to the USSR.

Not only Western theory but also Western geographers (as well as Taiwanese) were sweepingly denounced. Even those geographers who were considered to be "influenced" by the West were discredited, which is ironic considering that most renowned Chinese geographers of this generation were at least partially educated in Europe or the US. "During the 1950's, the Soviet influence proved a significant counterpoint to the large number of Western trained geographic specialists in China (who were much more concerned with historical and cultural geography)" (PANNELL 1980, 170). Not even their teachers were exempted from the general defamation (HSIEH 1959).

HSIEH (1959, 540) notes that "the Communist Chinese geographers write as though they revered Russian geographers as the Chinese used to revere Confucius." In fact, the article by SUN (1953), written in commemoration of "Comrade Stalin" and reviewing his "incalculable contributions" and his talent as a "beacon on the road to scientific construction", serves as evidence of this relationship: "Comrade Stalin's contributions to the theory of geography are manifold, and from within the treasure-house of Lenin's and Stalin's theory, endless use can be drawn"[8] (SUN 1953, 7–8). This reverence raises questions about the extent of ideological commitment of single geographers, which, however, will not be discussed further at this point.

Apart from ideologically tinted and politically-orientated contributions such as SUN (1953) and CHANG (1956), there was little discussion about the nature of geography as compared to the Anuchkin/Saushkin controversy in the Soviet Union after Stalin's death (cf. KARGER 1966). Methodological discussion in China followed the "Stalinist direction", dominated by strict dualism and based on Stalin's idea of a "geographical milieu" which excluded society as a shaping factor. Movements towards other concepts of geography, such as calls for a monistic approach to geographical science made by V. A. Anuchkin and J. G. Saushkin in the 50s and 60s in the Soviet Union, did not take place in China until the 1980s. Regional geography was restricted to the separate evaluation and regionalization of natural and economic potential.

The effect of Soviet influence, therefore, was the strict separation of physical geography from economic geography and the turn towards an exclusively application-orientated science: "Following the Soviet pattern, the study of geography is a practical subject, and its sole aim is to assist in the exploitation of the natural environment" (HSIEH 1959, 543). At the same time, research and education were strictly separated from each other; this required a restructuring within all – interconnected – parts of the field:

– Research activities were focused in the institutes of the Chinese Academy of Sciences – which was founded based on CIG in Nanjing in 1950 – whose administrative apparatus expanded rapidly whereas the number of scientists only increased slowly (cf. Tab. 2).

– Scientific training took place mainly at Comprehensive Universities and Colleges (generally focusing on physical geography), teacher training at Normal Universities and Colleges (with a heavier emphasis on political theory). Student numbers soared to twelve times pre-Liberation volume between 1949 and 1956 as a result of Communist education policy (HSIEH 1956), 26 new geographical institutes were founded alone at Normal Colleges and Universities (LI et al. 1980).

– The role of the GSC, led by Zhu Kezhen until 1974, was described as follows: "The national program of geographical research, as pursued not only in the institutions [of CAS] but also in the academic schools, is presented at the congresses of the [GSC which] plays the role of a forum for collective consultations" (KIKOLSKI 1964, 181). Branch societies were founded in the provinces in the 1950s, followed by the establishment of specialized commissions in the 1960s (CHRONOLOGY; Tab. 3).

– Except for economic geography (see below), human geography was practically banned. "This pattern of development in geography could not be divorced from the political climate of 'leaning to one side' and of learning from the USSR" (YEUNG a. ZHOU 1991, 375).

In summary: "Contemporary geographical research […] is organized to implement state economic plans in well-defined directions determined by the main economic objectives of the state" (KIKOLSKI 1964, 181).

3.2.1.1 The case of economic/human geography

Economic geography as practised in China between 1950 and the early 70s was closer to economics than to geography and was the only accepted field of human geography under the Soviet-influenced Communist regime. As such, it did include some economically-orientated aspects of urban geography and population geography but was mainly concerned with the evaluation of the potential of the natural resources and regional economic planning (YEUNG a. ZHOU 1991).

[8] Own translation.

However, economic geographers remained a minority as a result of the general hostility towards human geography. It "was viewed as nothing more than a pseudoscience of idealism" (YEUNG a. ZHOU 1991, 375), as expressed in an article published in AGS in 1956 and significantly titled "Human Geography Serves Imperialism" (CHANG 1956). Content and especially diction of the article are strongly tinted by ideological rhetoric and reflect the issues in contemporary methodological discourse:

"The ideology and methodology of human geography had tremendous influence in old China: for over 30 pre-liberation years, it had laid a solid foundation and established itself in a dominating position among the Chinese geographers. Various forms of expressions of the ideology of human geography may be found in China, and Chinese geographers are not yet exempt from its influence to a more or less degree. In order to eliminate thoroughly the ideology of human geography from and to establish the ideology of Marxist economic geography in our new China, we must study more carefully the classical works of Marx, Engels, Lenin, Stalin and Mao Tze-tung, and criticize more carefully and thoroughly the false ideology of human geography" (CHANG 1956, 35).

3.2.1.2 The case of teacher training

The fate of geographical teacher's training at Normal Universities may serve as an example for the mechanism of society's perceptions and their influence on the institutional structure of science. In the course of

Table 2: Development of scientist and staff numbers at IG/CAS (Beijing) 1953–1978
Entwicklung der Wissenschaftler- und Beschäftigtenzahlen am IG/CAS (Beijing) 1953–1978

Year	Scientists (rank of professor, *yanjiuyuan*)	Scientists (rank of assoc. professor, *fuyanjiuyuan*)	Total staff
1953	3	5	64
1958	3	13	194
1966	3	11	460
1978	9	23	519

(Source: LU et al. 1999, 7)

Table 3: Subdivision of the Geographical Society of China with founding dates
Unterteilung der Geographical Society of China (mit Gründungsjahren)

Period	Specialized commissions	Working groups	Divisions
Pre-Cultural Revolution	– Geomorphology and Quarternary Sciences (1961) – Economic Geography (1961) – Historical Geography (1961) – Hydrology (1962) – Physical Geography (1962) – Climatology (1962) – Cartography (1962) – Geography of the World (1963) – Chemical Geography (1964)		
Post-Cultural Revolution	– Human Geography (1983) – GIS (1987) – Oceanology (1988) – Medical Geography (1990) – Tourist Geography (1992) – Urban Geography (1994) – Sustainable Agriculture and Development of Rural Areas (1995) – Mathematical Geography (1995)	– Geographical Education (1979) – Dissemination of Geographical Knowledge (1979) – International Cooperation and IGU (1985) – Editing and Publishing (1989)	– Desert Research (1979) – Glaciology und Cryopedology (1980) – Environmental Remote Sensing (1981) – Mountain Research (1987) – Coastal Regions (1988) – River Changjiang (1988) – Development of Arid Regions (1991)

(Main sources: GSC; CHRONOLOGY)

time, these universities' curricula adapted increasingly to the needs of middle school curricula so that a notion spread that there was no need for a "scientific level" of education at these training facilities. As a result, financial and material equipment was cut. When in 1958 the teacher's quota for middle schools was reduced, this situation had catastrophic effects on the geographical institutes of Normal Colleges and Universities: many were forced to either expand their curricula (this option was limited by financial means), close down or fuse with institutes of neighbouring disciplines. Due to the economic slump, the demand for geographers decreased and a surplus developed. During the Cultural Revolution, this situation held as an argument against enrolling new students in geography (LI et al. 1980).

3.2.2 Breach with the Soviet Union: 1960

The 1960 breach with the Soviet Union caused the abrupt retreat of academic personnel and Soviet development aid. It thus forced China to resume its own, independent development. The country was struggling with the devastating effects of the policy of the Great Leap Forward: famine ravaged the countryside, the economy slumped. The situation immediately affected policy, which turned towards the international community once again. Within geography, this was manifested during a meeting of the Committee for Economic Geography of GSC in 1961 which reviewed the development of the past 12 years of economic geography: "It was deemed necessary to synthesize the experience to date, learn from international, including western experience […;] it was recommended that while agricultural geography played a critical role, other inchoate branches of human geography, such as industrial geography, settlement geography and population geography, badly need strengthening" (YEUNG a. ZHOU 1991, 375). In 1964, even a review of Western geography and its development was published, thereby indicating a turn in policy and an opening towards the West which was rooted in the political and ideological spirit of that time.

An indication of independent development was the official recognition of chemical geography as a new branch of physical geography in 1962. This branch caused some confusion abroad as to its scope and methods (KIKOLSKI 1964). However, as KIKOLSKI (1964, 183) remarks, "the field has come to be considered an important one, which will lead to a greater comprehension of the geographical environment and the processes which take place within it." Despite the fact that chemical geography was based on Soviet theories and methods, it has yet to be considered an original Chinese development in geography for its distinct features, which is playing an increasingly important role today, especially in global environmental change research.

3.2.3 1966–1976: Cultural Revolution

All of these developments came to a halt with the outbreak of the Cultural Revolution in 1966. Within months, the scientific climate, as manifested in scientific journals, swung from professional to pure propaganda. Most scientific journals ceased to be published altogether, formal education and training broke down. Geography was politically labelled a "useless science", Red Guards demolished university equipment, numerous departments were forced to close down; some research continued on a reduced level in the facilities of CAS. Only in 1970 did universities and colleges re-open to enrol new students as a result of the more moderate politics by Zhou Enlai. However, no normal classes could be held until 1976 without the danger of being labelled "reactionary" (LI et al. 1980).

It remains to be speculated what exactly happened to geography instructors in the wake of campaigns against 'bourgeois reactionary academic authorities' and 'old thought'. "Geography with its strong ties to the 'West' […] may have suffered a disproportionately heavier burden than did other disciplines. […I]t was clear that many geographers who had studied abroad were no longer on the university staffs with which they were associated in the period between 1958 and 1962. Others who had been 'tainted' presumably had recanted and returned to grace" (RODGERS 1974, 14–15).

3.3 "Reform and Opening" after 1978

After the "crippling setback" caused by the Cultural Revolution in all parts of society by the "near total isolation from foreign influence, both western and USSR, with virtually a complete breakdown of external communication" (YEUNG a. ZHOU 1991, 376), China made strong efforts to catch up with the rest of the world. The political framework for new action and new ties abroad was set by the "Open door policy" (*gaige kaifang*) and the "Four Modernisations" (agriculture, industry, defence and science) proclaimed by Deng Xiaoping in 1978.

3.3.1 International (geographical) relations

In 1971, the People's Republic of China joined the UNO; this must be considered a key date not only in international relations in general, but also in the development of Chinese geography.

In the mid–70s, general international contacts were re-established. One of the first geographers to be able

to visit China as a scientist was the American ALLEN RODGERS (1974); official contact was established in 1977 when an American delegation of geographers travelled to China. This visit was reciprocated in 1978 by a Chinese delegation of ten CAS and university geographers. During this trip, a meeting with Chauncy D. Harris, then IGU Secretary General, prompted negotiations about a continuation of the 1949 IGU-membership which was subsequently "renewed" at Paris in 1984. International institutional involvement peaked in the election of Wu Chuanjun as Vice President of IGU in 1988 (CHRONOLOGY; WU 1999).

For this period, WANG XIAOLUN (1991, 300) remarks that "history is repeating itself" in that students once again poured abroad and international relations have been picked up intensively again, as prior to 1949. However, in WANG's opinion, the repetition of history is happening under different conditions: "Political survival remains the priority item on the governmental agenda. Much of the government's concern about brain drain is narrowly political, a matter of saving face rather than saving the country" (ibid.).

3.3.2 Structural change

Significantly, this period brought a reflection of pre–1949 Geography (LIN 1982) as well as regret over the sweeping way in which Western geography had been dismissed, especially in the light of the differences that had evolved between Chinese and Western geography (LI et al. 1980). To compensate these 'deficits', a wave of establishment and renewal of geographical institutions spread across China. This was complemented by other innovations, e.g.

– the introduction of the academic degree system in 1981 (WU 1988);
– the renaming of CAS-institutes, followed by university institutes, to reflect emphases and thus demonstrate transparency (Tab. 4);
– project-orientated geographical research (instead of state-directed research)[9].

3.3.3 Reform and opening on the content level

UNO membership also directly affected the development of certain fields of geography. Chinese efforts in the fields of population studies, environmental science and resource sciences in the 1980s may be partially attributed to UN policy (YANG a. CAO 1990). Especially the renaissance of population geography in the beginning of the 1980s profited from UN-financial support for university-based population research institutes (YEUNG a. ZHOU 1991).

Human geography was revived in 1979, and by 1984, concentrated efforts in the most pressing fields of population studies, urban development and tourism studies. In 1983, the scope of the field was extended to include social, cultural and political geography as well as methodological and theoretical aspects. A GSC-Commission for Human Geography was established, and it was proposed officially to include human geography in university curricula, thereby reconsidering the "official" relationship of human geography (formerly subordinated) and economic geography (formerly dominant).

In physical geography, emphasis was put on environmental sciences and technical applications such as remote sensing and GIS since the 1970s. Chemical geography now plays an important role where environmental studies are concerned. A UN-conference on desertification issues in 1977 triggered a boom in desert research (ZHU 1984).

Table 4: Examples of renamed institutes

Beispiele umbenannter Institute

Level	Former Name	New Name
CAS (Research)	Institute of Geography, Nanjing Institute of Geography, Chengdu Institute of Geography (Beijing), together with Commission for Integrated Survey of Natural Resources	Nanjing Institute of Geography and Limnology Institute of Mountain Hazards and the Environment Institute of Geographical Science and Natural Resource Research (1999)
University (Training)	Geographical Institute, Beijing University Institute of Geography, Nanjing University Geographical Institute, Beijing Normal University	Institute for Urban and Environmental Studies (1988) Institute for Earth and Ocean Sciences (1987), additionally: Institute for Urban and Natural Resources (1995) Institute for Natural Resources and Environmental Studies (1993)

(Source: GSC 1999)

Methodologically, a discussion on the nature of geography developed in the 1980s. Increasingly, calls for an integrated geographical science are voiced. One prominent figure in this discussion is Qian Xuelin who approaches the problem on a philosophical level and promotes his belief that "geography is the convergence of the natural and the social sciences" (CAI, LI a. YE 1992, 19).

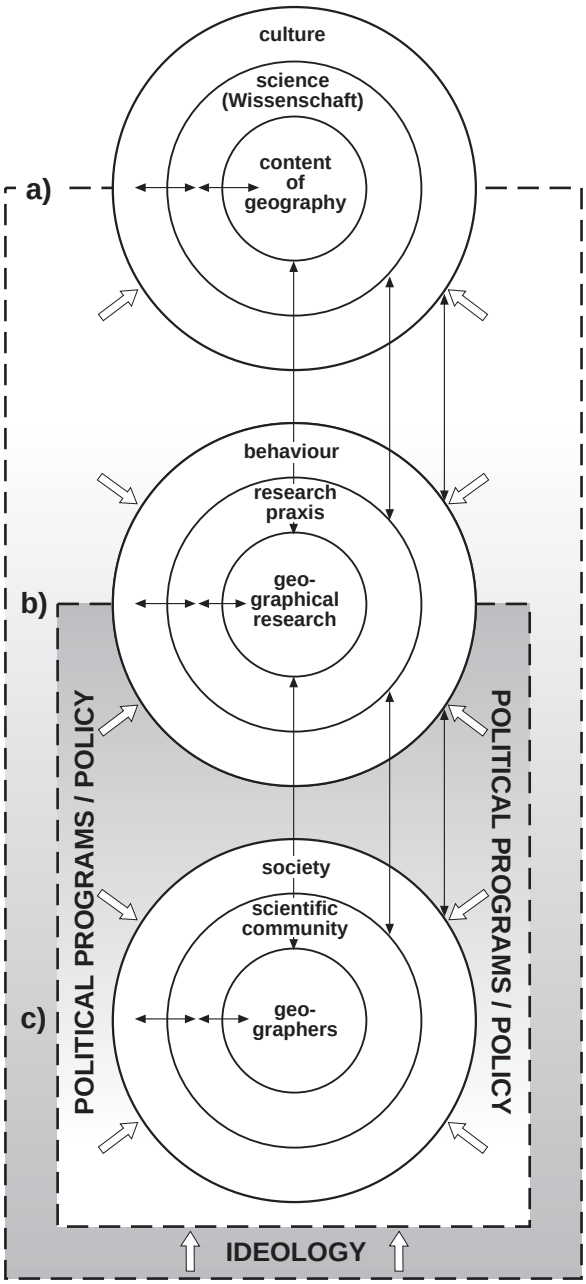
Since 1985, global environmental change research is playing an increasingly important role in Chinese science: "In China, scientists consider research on global change to be vital for the future of China" (YE a. CHEN 1994, iv). In pursuing global change studies, China is following a double purpose: on the one hand, focusing studies on the Chinese territory, thus yielding academic results on environmental issues which have the potential of being immediately relevant to environmental policy; on the other hand, involvement in the international network of global change research guarantees strong ties to the international scientific community.

Because of the interdisciplinary and integrative approach as well as its regional focus, geography plays an important role in global change research in China. Reciprocally, geography itself is strongly influenced by global change research as indicated by the renaming of the Beijing Institute of Geography (CAS) to "Institute of Geographical Sciences and Natural Resource Research" in 1999.

4 Conclusions

It remains to be seen what further effects the 1992 proclamation of "socialist market economy" and the recent WTO-membership is going to have. Even now, though, the effect of international relations is felt in geographical science; similar to the period prior to 1949, China is opening up to the international community. It must not be forgotten that the impulses for modern geography were initially imported (Zhang Xiangwen; global change research; cf. CAO 1999), then further developed by the Chinese geographic community (e.g. chemical geography).

However, even with the relaxed situation nowadays, the political heritage can still be felt in practical circumstances. For instance, it is difficult to obtain and especially to photocopy literature and material published prior to "Liberation" (1949) in major public libraries (the National Library in Beijing, for instance, or the central library of the Chinese Academy of Sciences in



Source: Granö 1996, modified by the author; Cartography: D. Engel

Fig. 3: The extended context of geography
Der erweiterte Kontext der Geographie

[9] Projects are annually listed in a tender (*zhinan*) and can generally be applied for by any interested party, especially those advertised by the National Science Foundation China, an organization founded in 1986 and roughly equivalent to the US National Science Foundation.

Beijing's Haidian District, where all printed media of pre–1949 are stored away in the countryside and totally inaccessible, according to the staff – information from Spring 2001).

On the theoretical side, a more differentiated discussion on the nature of geography with a tendency towards integrated research can be observed. Increasingly, new sub-branches, especially in the field of human geography, are added to the scope of geographical action; however, all efforts remain predominantly practically and policy-orientated.

Figure 1 should be modified to account for ideology and political decisions which play an essential role in science as an 'external influence' (Fig. 3). The relationship of the spheres of knowledge (a), action (b) and social structure (c) to ideology and politics is more unilateral than their relationship among each other. Certain parts of knowledge, however, may be exempted from ideological influence since they, as a part of culture, are more ancient than any modern ideology. Knowledge in this broad sense must be seen as independent of politics as well. Policy and politics may be considered to have most influence on the sphere of action or research – as suggested by the shading pattern -, best manifested in funding policy. Geographers as individuals may be more or less influenced by political considerations in their actions but are likely to be guided most by their ideological orientation as expressed by their respective "circles of affinity" (BERDOULAY 1981). However, these 'external influences' may be more or less strongly developed as indicated by the dashed lines.

These modifications may seem trivial; however, they are all too easily neglected in analyses of contemporary science, especially in the West.

Suggestions for future research include the qualitative contents analysis of Chinese geographical journals and textbooks which will leave no doubts about the role of geography in transporting Communist ideology, possibly until today; however, a formal and comprehensive analysis similar to that conducted by HEINRICH (1991) for Germany has yet to be undertaken. A judgement of the historical processes by Western scientists is hardly possible, and a judgement of the choices made by individuals in the course of history is also not to be aim of an assessment – quite following SANDNER's (1988, 121) opinion that "uncovering scoundrels" is not the task of geographical history.

In any case, the specific developments in China confirm the following statement: "In any place, geography is what geographers do – and that is a combination of what they want to do and what they are allowed to do. […] Geographers make their own discipline but they do not make it just as they please; they do not make it in circumstances chosen by themselves, but under circumstances directly found, given and transmitted from the past" (JOHNSTON 1984, 12).

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