FROM THE CHAIR

Welcome to the first issue of the re-launched Newsletter of the Spatial Analysis & Modeling (SAM) specialty group of the AAG. SAM or its predecessor, Mathematical Models and Quantitative Methods (MMQM), had published newsletters in paper form in the past. But in the past several years, we stopped publishing and mailing the newsletters to members.

I extend my thanks to several SAM members, including Steven Manson of Minnesota and Edmund Zolnik at George Mason University, who brought up the need to publish newsletters for SAM members again. In facilitating this effort and communication among SAM members, I have formed a Communication Committee with Steven Manson as the chair and Edmund Zolnik and Tony Grubesic of the University of Cincinnati as committee members. This committee will be in charge of the publishing of the newsletters and managing the SAM website. I am grateful to their initiative and their willingness to serve the community.

Here I would like to encourage SAM members to take advantage of the newsletter. This is our newsletter, one form of communication and information dissemination among SAM members. Feel free to share your views and ideas with me or members of the Communication Committee on what we can do to improve.

As my term as the Chair of SAM will expire next year (2006), I call here for nominations. Please send your nomination to me (dwong2@gmu.edu). Self-nomination is always welcomed.

Sincerely,

David Wong
Earth Systems and GeoInformation Sciences
George Mason University
**NOTEWORTHY**

Heejun Chang, Joseph Poracsky, and Teresa Bulman at Portland State University received a National Science Foundation grant entitled “Development of Quantitative Geography Curriculum Based on Numeric Visualization” ($74,956). The grant will be used to update geography department’s computer labs and support the development of a sequence of quantitative geography classes that make heavy use of graphical visualization.


**NEWS**

**Elmhurst College GIS Certificate Program**

Elmhurst College, a four-year liberal arts college located in northwestern suburban Chicago, Illinois, has embarked on a new venture in the way of a Geographic Information Systems (GIS) Certificate Program. The unique design of the Program has been tailored to meet the needs of working professionals and non-traditional students in the surrounding communities. Although the Program is a non-degree program, it does carry college credit, and may be applied towards a future degree program of the student’s choice at Elmhurst College. The first cohort of students began in late August 2005. These students will complete the required GIS Certificate courses by Summer 2006, having completed a total of five (5) courses in both GIS and Information Systems (IS).

Because the working professional normally does not have the means or the desire to undertake a full-fledged degree program, a suitable format was designed to accommodate the needs of the working professional. Those who have some knowledge of GIS, but want to increase their abilities in this area, as well as those who believe learning GIS techniques could increase their marketability, are among the program target audiences. Using these as a baseline for the program, the decision was made to opt for a unique “hybrid” format. This meant that while all technical information, theoretical aspects, and lectures (in the form of PowerPoint lectures stressing active learning techniques) was presented through an online course management system, the physical classroom time was reserved for hands on learning and assistance with software and computer challenges. Since it was thought that students would be commuting from the far surrounding areas for the classroom sessions, sometimes as much as 50 to 75 miles away from the campus, it was further thought that meetings should take place only on alternate weekday evenings, once again to accommodate the needs of the students.

The focus of the curriculum in the Program is to align the outcomes with the GIS Certification Institute (GISCI) educational requirements for certification leading to an eventual Certified GIS Professional (GISP). Feedback from the spatial modeling community has been that a number of GIS professionals and spatial modelers have been using the spatial techniques for many years and using spatial software for a good length of time, but lack the official educational points to qualify for the GISP. The GIS Certificate Program is designed with this in mind. The plan for 2006-2007 is to have two (2) cohorts: one in a hybrid format and one entirely online.

Want more details on the GIS Certificate Program at Elmhurst College such as course curriculum, meeting times/dates, admission requirements, and other features? Visit the website at: http://www.elmhurst.edu/~geo/GISCertProgram.html or contact the GIS Certificate Program Coordinator: Dr. Richard B. Schultz at richs@elmhurst.edu or (630) 617-3128. Submitted by Richard B. Schultz.

**Programs in Spatial Analysis and GIS at Florida State University**

Through a series of recent new hires, and subsequent curriculum development, the Florida State University Department of Geography has firmly established a commitment to advanced research and graduate education in spatial analysis, remote sensing and GIS.

Within the last three years the geography department has added Xiaojun Yang (Ph.D. Georgia), Victor Mesev (Ph.D. Bristol), and Mark W. Horner (Ph.D. Ohio State). Yang’s interests are in geographic information science, remote sensing, urban analysis, and environmental modeling. Mesev’s expertise is in geographic information science, remote sensing, spatial data analysis, and urban geography. Horner specializes in geographic information science, transportation, urban geogra-
phy, and spatial modeling. The department is currently conducting a search to fill a junior-level position focused on GIS and health issues.

Yang, Mesev, and Horner collaborated with existing department of Geography faculty members Jim Elsner (Meteorology, Climatology) and Tony Stallins (Biogeography, Climatology) to design and implement a new 1-year Professional Master’s program in GIS. Students in the program take courses in spatial modeling, remote sensing, visualization, as well as in advanced GIS theory and GIS applications. The program commenced fall 2005, and our inaugural class is well on their way to exciting new opportunities in GIS.

The departmental cluster in GIS and spatial analysis enjoys the strong support of the College of Social Sciences (of which geography is a member). Under the leadership of Dean David Rasmussen, the college funded a new state-of-the-art, purpose-built computer laboratory housing all the major GIS proprietary software, such as ArcGIS, ERDAS Imagine, TransCAD, and Idrisi, as well as several modeling titles (e.g. CPLEX, STATA, S-PLUS).

The department offers traditional academic Master’s degrees and the Ph.D. in geography, which allow students to specialize in GIS, remote sensing, and/or spatial analysis, in addition to other areas of geography where faculty have expertise (e.g. human and environmental geography). The department is actively recruiting new graduate students with interests in GIS and spatial analysis for its Master’s and Ph.D. programs. Financial support for qualified graduate students is nationally competitive, and interested students are encouraged to contact the graduate studies chair Jonathan Leib, (jleib@fsu.edu) or any faculty member with questions about research opportunities.

We welcome you to visit our website and learn more about us and our research. http://www.fsu.edu/~geog. Submitted by Mark W. Horner and Victor Mesev.

**SAM SG sessions at the AAG Meeting**

In keeping with past successes at the annual meetings, SAM is sponsoring or cosponsoring sessions at the AAG Meetings, March 7-11, 2006 in Chicago, Illinois. The following are the session titles and organizers of sessions with official SAM sponsorship as of November 3, 2005. Others may join these over time.

Remote Sensing and GIS for Urban Analysis. Cosponsored by Remote Sensing, GIS, and Urban Geography. Xiaojun Yang, Florida State University (xyang@fsu.edu); Victor Mesev, Florida State University (vmesev@fsu.edu).

Perspectives on Geographic Complexity. Cosponsored by GIS. Dan Brown, University of Michigan (danbrown@umich.edu); Peter Deadman, University of Waterloo (pjdeadma@fes.uwaterloo.ca); Paul Torrens, Arizona State University (torrens@geosimulation.com); Gil Pontius, Clark University (rpontius@clarku.edu).

The Infusion of GIS into Various Disciplines: Spatial Education at its Most Useful. Richard Schultz, Elmhurst College (richs@elmhurst.edu); Richard Greene, Northern Illinois University (rgreene@niu.edu).

Integration of GIS into the K-12 Curriculum. Cosponsored by Geographic Education. Art Samel, Bowling Green State University (ansamel@bgnet.bgsu.edu); Richard Schultz, Elmhurst College (richs@elmhurst.edu)

From Shatter Zones to Sink Estates and Urban Projects: Understanding and Mapping Poverty in the 21st Century. Steve Millington, Manchester Metropolitan University (S.Millington@mmu.ac.uk); Graham Smith, Manchester Metropolitan University (G.R.Smith@mmu.ac.uk).

Spatial Data Mining and Exploratory Data Analysis. Cosponsored by GIS. Diansheng Guo, University of South Carolina (guod@sc.edu); Jeremy Mennis, Temple University (jmennis@temple.edu).

Location Science Session(s) in Honor of Charles ReVelle. Alan Murray, The Ohio State University (murray.308@osu.edu).

Geographic Visualization and Spatial Analysis. Cosponsored by Cartography. Heejun Chang, Portland State (chang@pdx.edu); Frank Hardisty, South Carolina (HardistyF@gwm.sc.edu); Rob Edsall, Arizona State (robedsall@asu.edu); Amy Lobben, University of Oregon (lobben@darkwing.uoregon.edu).

Linking Social and Ecological Systems. Jane Southworth, University of Florida (jsouthwo@
Where Are We? Recent Approaches to Population Distribution Estimation. Cosponsored by Population, GIS, and Remote Sensing. David Rain, George Washington University (david.rain@gwu.edu); Budhendra Bhaduri, Oak Ridge National Laboratory (bhaduribl@ornl.gov).

Models as Theory: Models as Explanation. Cosponsored by Economic Geography. Christopher Fowler, University of Washington (csfowler@u.washington.edu).

Fuzzy Mathematics and Geography. Cosponsored by Economic Geography. A-Xing Zhu, University of Wisconsin-Madison (azhu@wisc.edu); James E. Burt, University of Wisconsin-Madison (jeburt@wisc.edu).

Computational Geometry for GIScience. Cosponsored by GIS. Lan Mu, University of Illinois, Urbana-Champaign (mulan@uiuc.edu).

SAM Student Paper Competition I and II. Fahui Wang, Northern Illinois University (fwang@niu.edu).

Dimensions of Population Disparities. Cosponsored by Population Geography and Urban Geography. David Wong, George Mason University (dwong2@gmu.edu); Michael Reibel, California State, Pomona (mreibel@csupomona.edu).

Segregation and Neighborhood Analysis. Cosponsored by Population Geography and Urban Geography. David Wong, George Mason University (dwong2@gmu.edu); Casey Dawkins, Virginia Tech (dawkins@vt.edu).

Spatial Analysis Applications. David Wong, George Mason University (dwong2@gmu.edu).

Spatial Modeling Techniques. David Wong, George Mason University (dwong2@gmu.edu).

CALLS

Call for papers for 12th International Symposium on Spatial Data Handling, 2006, 10th to 12th July, 2006 University of Vienna, Austria. Papers can be in any area of Geographical Information Science, which is to say in the theoretical areas that address the working of and work with Geographical Information Systems. More info on the events at http://www.gicon2006.at/. Deadline extended to December 31st 2005.


COMPETITIONS

SAM Paper Competitions. The SAM specialty group continues its tradition of paper competitions at the AAG meetings. We have two paper competitions: student and emerging scholars (visit http://www.sam.gmu.edu/web/paper_comp06.rtf). For questions or comments, please contact Vice Chair Fahui Wang (fwang@niu.edu).

ACSM-CaGIS 33rd Annual Map Design Competition. The Cartography and Geographic Information Society of the American Congress on Surveying and Mapping is pleased to announce this year’s map design competition. The purpose of the competition is to promote interest in map design and to recognize significant design advances in cartography. The competition entertains entries in a Professional Category and a Student Category. Deadline: January 15, 2006. For more information, see http://acsm.net/cagis/index.html or call (240) 632-9716 ext.109.

AAG Grants and Awards. The AAG offers numerous grants and awards to geographers. The list that follows serves to remind specialty group members about the opportunities available for recognition or grant support. Unless otherwise noted, all deadlines are December 31, 2005.

Meredith F. Burrill Award: To stimulate and reward talented individuals and groups who have
completed work of exceptional merit and quality that lies at or near the intersection of basic research and practical applications or local, national, or international policy implications.

George and Viola Hoffman Award: To support student research toward a master's thesis or doctoral dissertation on a geographical subject in Eastern Europe.

Glenda Laws Award: To recognize outstanding contributions to geographic research on social issues.

Anne U. White Fund: To support field research conducted by a member of the AAG jointly with her or his spouse, regardless of any formal training in geography.

AAG Research Grants for 2006: To support direct expenses of research or fieldwork that address questions of major import to the discipline (excluding master's or doctoral dissertation research).

AAG Dissertation Research Grants for 2006: To support direct expenses of master's or doctoral dissertation research to eligible individuals.

AAG International Geographic Information Fund: To support full-time students who are currently registered in an undergraduate or graduate degree program within the United States, and who are working in any area of spatial analysis or geographic information science or systems, through Student Travel Grants, Graduate Research Awards, and Student Paper Awards.

AAG Meridian Book Award for the Outstanding Scholarly Work in Geography 2005: To recognize geographer authors or co-authors who have published a book in calendar year 2005 that makes an unusually important contribution to advancing the science and art of geography.

AAG Globe Book Award for Public Understanding of Geography 2005: To recognize geographer authors or co-authors who have published a book in calendar year 2005 that conveys most powerfully the nature and importance of geography to the nonacademic world.

AAG John Brinckerhoff Jackson Prize for 2005: To encourage and reward American geographers who write books about the United States that convey the insights of professional geography in language that is interesting and attractive to a lay audience.

Anderson Medal: To recognize distinguished contributions to the profession of geography in one or more areas of industry, government, literature, education, research, service to the profession, or public service (Deadline is December 1, 2005).

**EMPLOYMENT**

**Bloomington, Indiana.** Indiana University - Bloomington 47405-7100. The Department of Geography invites applications for a tenure track position of Assistant Professor in the area of Sustainability/Urban and Environmental Geography. Expertise in GIS and quantitative methods would be advantageous. The successful applicant will also become part of a new research direction of the department focusing on Sustainable Systems, which includes areas of development, transportation and energy resources. Teaching duties will include both undergraduate and graduate courses. Applicants should have or expect to receive the doctoral degree by August 2006. Applications received by November 1, 2005, are guaranteed full consideration; the position will remain open until filled.

Applicants should send a letter of application describing research and teaching interests, a curriculum vitae, sample publications, and syllabi. Three letters of reference should be mailed under separate cover. Applicants should send materials to: William R. Black, Chair, Department of Geography, Indiana University, Student Building 120, Bloomington, IN 47405-7100, USA. Indiana University is an Equal Employment Opportunity/Affirmative Action Employer and we strongly encourage applications from women and minorities.

**Bloomington, Indiana.** Indiana University - Bloomington 47405-7100. The Department of Geography invites applications for a tenure track position of Assistant Professor in the area of Economic Geography/Sustainable Development. The position is part of IU's multi-year commitment to hire 25 scholars with an interest in the Two-Thirds World (Global South). The successful applicant will also become part of a new research and teaching direction of the department focusing on Sustainable Systems, which includes areas of development, urban systems, transportation and energy resources. Teaching duties will include both undergraduate and graduate courses in the department and in the International Studies program. Applicants should have or expect to receive the doctoral degree by August 2006. Applications received by November 1, 2005, are guaranteed full consideration; the position will remain open until filled.

Applicants should send a letter of application describing research and teaching interests, a curriculum vitae, sample publications, and syllabi.
Three letters of reference should be mailed under separate cover. Applicants should send materials to: William R. Black, Chair, Department of Geography, Indiana University, Student Building 120, Bloomington, IN 47405-7100, USA. Indiana University is an Equal Employment Opportunity/Affirmative Action Employer and we strongly encourage applications from women and minorities.

Cleveland, Ohio. A reminder that we are now (still) accepting applications for a senior faculty member to direct our Center for Housing Research & Policy at the Levin College at Cleveland State. We will begin reviewing applications soon, so if you intend on applying, may I request that you do so as soon as possible. You may access the position description on the Levin College web site at URL http://urban.csuohio.edu. The posting is on the right under "News and Announcements", Open Faculty Positions.

Columbus, Ohio. Joint Assistant Professor position between Geography and Statistics, Assistant Professor [full-time, tenure-track faculty member]. The Departments of Geography and Statistics announce the availability of a new tenure-track Assistant Professor position in the area of spatial analysis methods. We wish to hear from individuals with excellent research records and potential for integration to other thematic areas. Applications from exceptional individuals will also be considered at the tenured Associate Professor level. In particular, we seek an individual with expertise in spatial statistics, exploratory spatial data analysis, and GIScience. Substantive interests in the areas of spatial data uncertainty, urban issues, environmental science, hierarchical / Bayesian spatial statistical modeling, spatial econometrics, geostatistics, and/or spatial pattern analysis are desirable. Participation in the Department of Statistics' Program in Spatial Statistics and Environmental Sciences is expected. The successful applicant will hold a joint appointment in the Department of Geography [75%] and in the Department of Statistics [25%]. A Ph.D. in Geography or a closely related field and a Master's degree (or equivalent) in Statistics are required at the time of appointment. Demonstrated excellence in teaching and research is also required. Letter of application, complete CV, graduate transcripts, statement of professional interests and accomplishments, three letters of reference, and selected papers (published, forthcoming, submitted) should be sent to: Morton E. O'Kelly, Chair, Department of Geography, 154 North Oval Mall, The Ohio State University, Columbus, Ohio 43210-1361, USA. Tel: 614-292-2514; FAX 614-292-6213. e-mail: okelly.1@osu.edu. Department home page www.Geography ohio-state.edu

Fairfax, Virginia. The Earth Systems and Geoinformation Sciences Program/Department (ESGS) in the School of Computational Sciences at George Mason University (soon will be part of the new College of Sciences) is expected to have one to three Graduate Student Assistantships (GRAs) in Spring 2006 for students pursuing the Ph.D. in Earth Systems and Geoinformation Sciences (http://esgs.gmu.edu). Students with a master's degree in related fields, such as atmospheric science, computer science, Earth sciences, environmental science, geography, GIS, remote sensing, are encouraged to apply for either this coming spring (January) or fall 2006 semester admission. Distinguished students with undergraduate degrees in related areas are also encouraged to apply. Some of the strengths in the ESGS Program/Department include atmospheric dispersion modeling, global and regional climatic analysis, global precipitation measurements, sea ice estimation and analysis, earthquake prediction, aerosol/dust storm monitoring, wildfire monitoring, hydrological modeling, distributed/web GIS and geospatial interoperability, geocomputation, spatial analysis/statistics, population analysis, geoarchaeology, microwave and hyperspectral remote sensing. Online application can be accessed through http://www.scs.gmu.edu/Academics_new.html. For further questions, please contact Professor David Wong at dwong2@gmu.edu or 703-993-1212.

University Park, Pennsylvania. The Department of Anthropology of the Pennsylvania State University invites applications for a tenure-track position (effective August 2006) with a Geographical Information Systems (GIS) and spatial analysis focus. Rank is flexible, but senior assistant professor or junior associate professor is preferred. Individuals from any scholarly field or sub-discipline are encouraged to apply, but the successful candidate must have a record of anthropologically relevant research and teaching, publications commensurate with rank, and a demonstrated ability to attract external funding. General GIS expertise is required, although a range of specific skills such as remote
sensing, spatial modeling, or image analysis will be considered. The person filling this position will develop and teach not only GIS courses, but others that complement and augment the existing departmental curriculum, which emphasizes archaeology and bioanthropology on both graduate and undergraduate levels. He/she will be expected to provide leadership and vision in expanding the GIS focus within our department and across the college, to acquire funding for innovative GIS applications, to attract graduate students, to collaborate with other department faculty, and to establish links with scholars elsewhere in the University and at other institutions. Candidates’ skills and interests should be consistent with the Anthropology Department’s mission, which is strongly integrative, scientific, and quantitative, and which has a long tradition of demographic, genetic, evolutionary, and ecological research both in the field and in the laboratory. For detailed information about our department consult http://www.anthro.psu.edu. Review of applications will begin January 15, 2006 and continue until the position is filled. Send letter of application, c.v., and names of three references to: Wendy Fultz, (wad3@psu.edu) Departmental Staff Assistant, 409 Carpenter Bldg., The Pennsylvania State University, University Park, PA 16802). Penn State is committed to affirmative action, equal opportunity, and the diversity of its work force.

SPECIALTY GROUP
ANNUAL REPORT FOR 2004/2005

I. Mission Statement

Our mission is to foster and maintain interaction, cooperation and community among individuals interested in the analysis of geo-referenced data, modeling of spatiotemporal processes and the use of analytical and computational techniques in solving geographic problems. The specialty group promotes the scientific study of physical, environmental and socioeconomic geography and the development, use and teaching of analytical cartography, geographic information systems (GIS), remote sensing, spatial statistical, mathematical and computational techniques for spatial analysis.

II. Membership Dues
Regular: $3
Student: $1

III. Board
Chair – David Wong, George Mason University (term expires 2006)
Vice Chair/Treasurer – Fahai Wong, Northern Illinois University (term expires 2007)
Board member – Tom Cova, University of Utah (term expires 2005)
Board member – Mark Horner, Florida State University (term expires 2006)
Board member – Phaedon Kyriakidis, University of California, Santa Barbara (term expires 2007)
Student representative – Jared Aldstadt (term expires 2005)

IV. Accomplishments, Activities, Future Plans and Directions

National Meeting
SAM is very active and visible in the Denver, CO, 2005 AAG Annual Meeting, 4-9 April, 2005. Twenty-four (24) sessions are under the SAM category. SAM sponsored or co-sponsored 19 sessions, up from 18 sessions in 2004. These sessions include a plenary session, a pane session, two sessions for Student Paper Competition, and one session for the Emerging Scholar Paper Competition. A total of 94 papers (up from 83 papers in 2004) were scheduled. Last year, the plenary session was canceled due to scheduling conflict. This year, the plenary speaker is Rick Church of University of California, Santa Barbara. Thanks to Alan Murray again, Geographical Analysis sponsored the reception after the plenary session.

Elections
At the business meeting of the Annual AAG meeting at Denver, SAM new officers were elected. Steven Manson (University of Minnesota) was elected as the Board Member, replacing Tom Cova. Scott Bridwell (University of Utah) was elected as the Student Representative, replacing Jared Aldstadt. The new board is as follows (effective immediately): Chair – David Wong (term expires 2006) Vice Chair/Treasurer – Fahui Wang (term expires 2007) Board member – Mark Horner (term expires 2006) Board member – Phaedon Kyriakidis (term expires 2007) Board member – Steven Manson (term expires 2008) Student representative – Scott Bridwell (term expires 2008). Congratulations to our new board members and thank for the great services provided by Tom Cova and Jared Aldstadt.
Specialty Database
During the last SAM business meeting, the Chair proposed to develop a specialty database for SAM members. The system was prototyped and the interface was developed. During June, 2004, the Chair informed all Board Members about the prototype and asked the Members to test and provided comments and feedbacks. Only one member responded. The direction of this project is not clear.

V. Membership and Participation

Membership numbers:
2005 – 716
2004 – 200
2003 – 427 (unofficial)
2002 – 366
2001 – 261
2000 – 204
1999 – 219
1998 – 244
1997 – 285
1996 – 339
1995 – 309

Current balance: $4,107.45 (1/31/2005)

Respectfully submitted,
David Wong
April 6, 2005
**Specialty Group Information**

Purpose: To foster and maintain interaction, cooperation and community among individuals interested in the analysis of geo-referenced data, modeling of spatio-temporal processes and the use of analytical and computational techniques in solving geographic problems. The specialty group promotes the scientific study of physical, environmental and socio-economic geography and the development, use and teaching of analytical cartography, GIS, remote sensing, spatial statistical, mathematical and computational techniques for spatial analysis.

Spatial Analysis and Modeling
Volume 25
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Winter 2005

This newsletter reaches a large number of readers and is therefore an excellent venue for getting the word out on community news, departmental happenings, research findings, media appearances, and the like. It is also a good place to post calls for proposals, awards, grants, fellowships, and jobs. We also invite you to submit commentaries or features of broad interest to specialty group members.

The newsletter relies on volunteers to submit articles, so please take a moment to send along relevant items.

Please send your submission by email to Steven Manson (manson@umn.edu) in text or rich text format. Photos or other images, with captions in an attached text file, are also welcome (GIF, JPG, or PNG).

**Officers**

**Chair**

**David Wong**
Earth Systems and GeoInformation Sciences
School of Computational Sciences
George Mason University
Fairfax, Virginia 22030
Email: dwong2@gmu.edu
Term expires: 2006

**Vice-chair/treasurer**

**Fahui Wang**
Department of Geography
Northern Illinois University
Davis Hall 118
De Kalb, IL 60115
Email: fwang@niu.edu
Term expires: 2007

**Board members**

**Mark Horner**
Department of Geography
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Tallahassee, FL 32306-2190
Email: mhorner@fsu.edu
Term expires: 2006

**Phaedon Kyriakidis**
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Term expires: 2007

**Steven Manson**
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Term expires: 2008

**Student representative**

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