



# **INTERNATIONAL JOURNAL OF GEOENGINEERING CASE HISTORIES**

Scope, characteristics, present and future

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Case Histories

<http://casehistories.geoengineer.org>



# An incomplete list of GEOENGINEERING REFEREED JOURNALS

ASCE Journal of Geotechnical and Geoenvironmental Engineering  
ASCE International Journal of Geomechanics  
ASTM Geotechnical Journal  
Canadian Geotechnical Journal  
Geotechnique, Thomas Telford  
Proceedings of ICE Geotechnical Engineering, Thomas Telford  
Computers and Geotechnics, Elsevier  
Soil Dynamics and Earthquake Engineering, Elsevier  
International Journal of Rock Mechanics and Mining Sciences, Elsevier  
Tunneling and Underground Space Technology incorporating Trenchless Technology Research, Elsevier  
Felsbau  
Geotechnical and Geological Engineering, Springer  
Engineering Geology, Elsevier  
Seismological Research Letters  
Quarterly Journal of Engineering Geology and Hydrogeology  
Electronic Journal of Geotechnical Engineering  
The International Journal for Numerical and Analytical Methods in Geomechanics  
International Journal of Soil Dynamics and Earthquake Engineering  
Geosynthetics International  
Geotextiles and Geomembranes  
Soils and Foundations  
Acta Geotechnica

# Why a case histories journal?



We recognize:

the importance of well-documented case histories and the need for high quality case history data.

*“Our theories will be superseded by better ones, but the results of conscientious observations in the field will remain as a permanent asset of inestimable value to our profession.”*

Karl Terzaghi, Presidential address to the First International Conference on Soil Mechanics and Foundation Engineering, 1936

Case histories: common point of reference among researchers and practitioners.

In real projects the boundaries between geotechnical engineering, engineering geology, soil mechanics and rock mechanics are not well defined.

Case histories are of interest to practitioners and researchers



# Key journal characteristics

CHARACTERISTIC # 1: Entirely focused on case histories

- Back-analyses with sophisticated numerical procedures or advanced physical models are not required, but welcome.
- “The careful documentation of a well-executed program of subsurface investigation and field instrumentation of performance is considered a significant contribution in its own right”.

*Bray et al. 2005 Foreword of the IJGCH*



# Key journal characteristics

## CHARACTERISTIC # 2: High quality publication

- Established review procedures based on most prestigious journals in geo-field.
- English language editor
- Distinguished International Editorial Board consisting of Professors and recognized practitioners from all geoen지니어ing fields of practice (soil mechanics, geotechnical engineering, engineering geology, rock mechanics).



# Editorial Board

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# Key journal characteristics

CHARACTERISTIC # 3: Immediately accessible to geoengineers worldwide

- Journal access is limited worldwide for companies, but also for universities abroad.

According to a recent survey:

- 6 out of 10 engineers are not subscribed or are subscribed to 1 journal only (major problem for advancing geoengineering practice).
  - 60% of engineers report that they are not subscribed to more journals due to their cost.
- 
- All papers available online at no cost. Visitors can download the papers immediately from the website



# Key journal characteristics

CHARACTERISTIC # 4: Journal takes advantage of the largely unexploited opportunities provided by the information technology and the internet.

- Worldwide circulation of projects and ideas.
- Reviews are completed entirely via the internet.
- Publication cost is minimized.
- Papers circulated immediately after being accepted and formatted.
- All published papers are immediately included in search engines.



## CHARACTERISTIC # 4 continued

- Papers include **colored** photos and graphs (very important for case histories). Optionally videos or additional relevant information and data.



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Available by the Geoengineer Website  
<http://www.geoengineer.org>



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# Key journal characteristics



## CHARACTERISTIC # 4 continued

- Digital data storage and creation of database. Each paper accompanied by the data presented in the paper in digital format (integration of research and practice).



# International Journal of Geotechnical Engineering Case Histories

Paper # IJGCH\_1\_1\_3

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**Title:**

**Unexpected but foreseeable mat settlements on Piedmont residuum**

[Download Pdf paper](#)

[Download digital data](#)

**Authors:**

**Paul W. Mayne**, Professor, Georgia Institute of Technology, USA ([website](#))

**Abstract:**

*A large mat foundation was constructed to support a 13-story dormitory on Piedmont residual silty soils in Atlanta, Georgia. Prior to construction, the geotechnical consultant of record estimated maximum expected settlements of the mat on the order of 1.8 inches (46 mm), while the building proceeded to deflect as much as 10 inches (250 mm) at the center and 5 inches (127 mm) at the corners near the end of construction. Details on the case history are reviewed by an outside observer and placed within the context of geotechnical practice. In addition to routine soil borings, the use of enhanced in-situ testing (in this case, flat dilatometer tests) in concert with elastic continuum solutions would have provided calculated values in line with the observed performance.*

**Keywords:**

foundations, displacements, elasticity, in-situ tests, mats, rafts, settlements



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	A	B	C	D	E	F	G	H	I
1	<b>Deflections</b>	<b>Breadth distance, x (m)</b>	<b>Width distance, y (m)</b>						
2	<b>(mm)</b>								
3	100.000	0.30	16.50						
4	100.000	1.20	17.00						
5	100.000	1.80	17.30						
6	100.000	2.50	17.70						
7	100.000	104.00	2.50						
8	100.000	103.43	1.80						
9	100.000	102.35	1.11						
10	100.000	101.53	0.62						
11	100.000	101.20	0.21						
12	100.000	101.02	0.05						
13									
14	<b>Deflections</b>	<b>Breadth distance, x (m)</b>	<b>Width distance, y (m)</b>						
15	<b>(mm)</b>								
16	120.000	0.38	15.60						
17	120.000	1.21	15.77						
18	120.000	2.11	16.02						
19	120.000	3.58	16.27						
20	120.000	5.14	16.52						
21	120.000	6.55	16.85						
22	120.000	8.24	17.46						
23	120.000	8.89	17.98						
24	120.000	9.70	18.25						
25	120.000	94.45	0.39						
26	120.000	95.55	1.36						
27	120.000	97.12	2.50						
28	120.000	98.10	3.26						
29	120.000	100.02	4.53						
30	120.000	102.00	5.38						
31	120.000	103.00	5.96						
32	120.000	102.00	7.00						
33	120.000	102.00	7.90						
34	120.000	101.76	9.14						
35	120.000	102.80	10.30						
36	120.000	104.00	11.00						
37	120.000	104.26	0.12						

# Key journal characteristics



CHARACTERISTIC # 5 : Non-profit “flexible” effort.  
Aiming to serve the Profession worldwide.

- The journal was established by a group of geotechnical professionals.
- Because it is available at no cost, there is no pressure to publish continuously new issues, allowing to keep the quality of the publication high.
- Currently funded entirely and supported by the Geoengineer website (>15,000 visitors/month). Promotion through the Geoengineer Newsletter (currently more than 3500 subscribed members)

# Advantages for authors



- Timely review
- Journal support to improve the manuscript
- No copyrights release
- Popular journal (easily accessible at no cost)
- Promotion of each paper in a variety of ways

# Case Histories Journal today

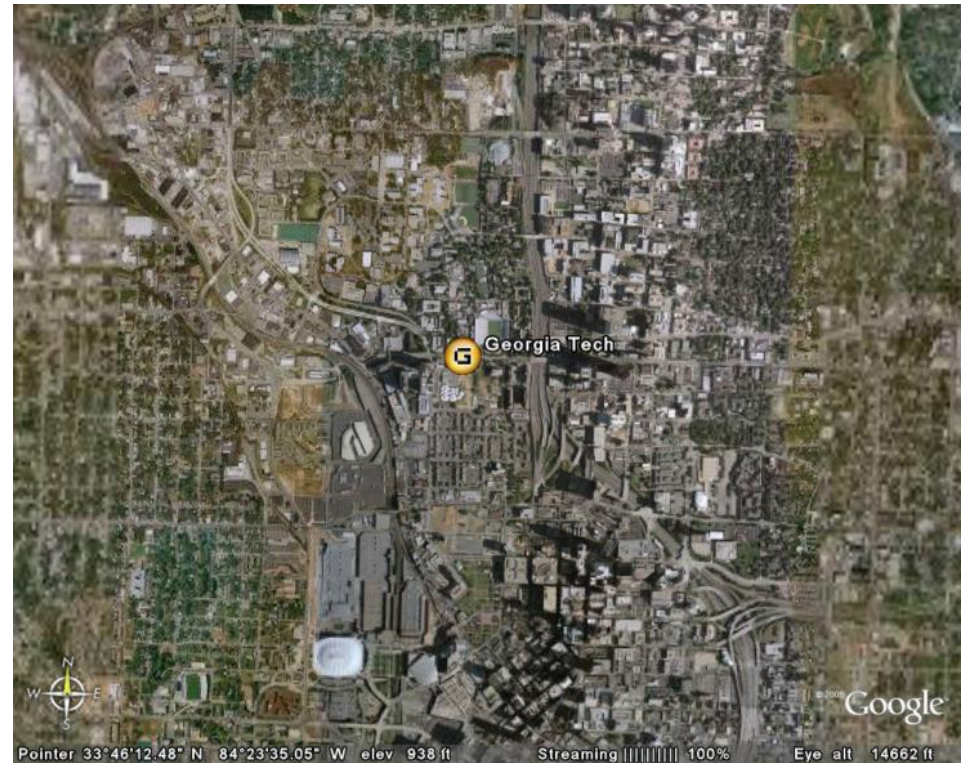


- A newly established journal:
  - Concept conceived in early 2004
  - Established review procedures and Editorial Board based on existing high quality geoengineering publications.
  - Currently more than 10 papers are being reviewed
  - First issue to be distributed in March 2006
  - Not available online only (print (bi-)annual volume)



# Case Histories Journal tomorrow

- Digital searchable database of location of case histories
- Case History Award
- Failure Documentation Award



# GEOENGINEERING SOCIETY & CASE HISTORIES JOURNAL



- Effort initiated by a groups of engineers that recognized the need of the journal. We want the Geoengineering Societies involved.
- The Case Histories Journal and the Geoengineering Society can both benefit from this collaboration.
- We want your organization's **support and endorsement** to achieve the journal's goals.
- A useful tool to the profession with no financial risk, that can provide significant exposure to the society



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