Working Towards Earthquake Resistant Housing: The World Housing Encyclopedia

Andrew Charleson
Editor-in-Chief

The World Housing Encyclopedia

- Founded in 2000

The World Housing Encyclopedia

- Founded in 2000
- Under the auspices of EERI and IAEE

The World Housing Encyclopedia

- Founded in 2000
- Under the auspices of EERI and IAEE
- Responds to the seismic vulnerability of the world's housing stock, particularly in Developing Countries

The World Housing Encyclopedia

- Founded in 2000
- Under the auspices of EERI and IAEE
- Responds to the seismic vulnerability of the world's housing stock, particularly in Developing Countries
- Voluntary and international organisation

Project aimed at reducing housing vulnerability

- Web-based encyclopedia of housing types worldwide
- Tutorials (technical guideline documents)
- Other initiatives and resources

www.world-housing.net

The Encyclopedia

- Database of world housing construction practices

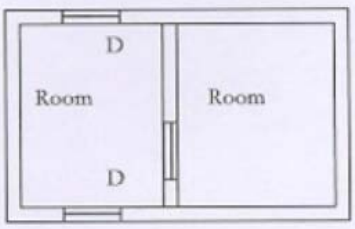
The World Housing Encyclopedia

- Database of world housing construction practices
- Over 150 reports from 40 countries or territories

AN EXAMPLE REPORT

Rural mud house with pitched roof

- **Report #** 23
- **Report Date** 06-05-2002
- **Country** INDIA
- **Housing Type** Adobe / Earthen House
- **Housing Sub-Type** Adobe / Earthen House : Mud walls
- **Author(s)** Amit Kumar
- **Reviewer(s)** Ravi Sinha



Report Structure and Sections

1. General Information
2. Architectural Aspects
3. Structural Details
4. Socio-Economic Aspects
5. Seismic Vulnerability
6. Construction
7. Insurance
8. Strengthening

3. Structural Details

3.1 Structural System

This is an Adobe / Earthen House: Mud walls

3.2 Gravity Load-Resisting System

The vertical load resisting system is earthen walls. The roof loads are directly supported by the .....

3.3 Lateral Load-Resisting System

The lateral load resisting system is earthen walls. .....

Tutorials

- Adobe Buildings *(English / Spanish)*
- Confined Masonry Dwellings *(English / Spanish)*
- Reinforced Concrete Frame Buildings *(English / Spanish)*
- *Stone masonry houses*
- Tutorials on straw bale houses and RC houses are under preparation.

Tutorials

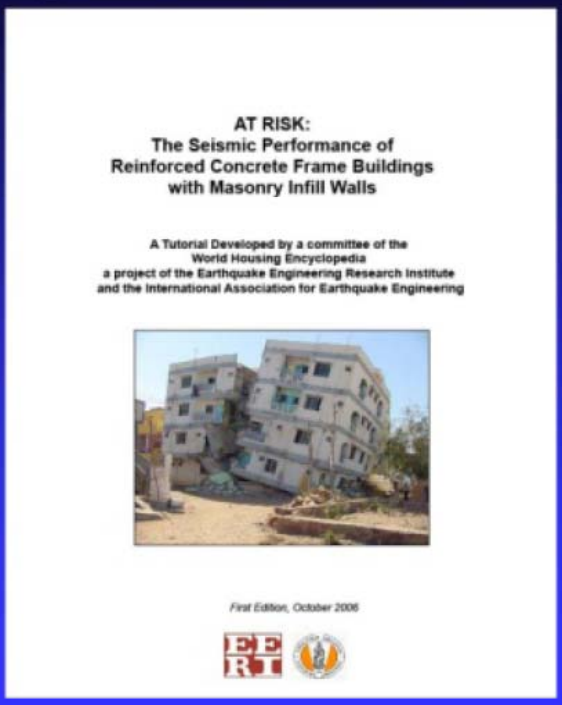
The World Housing Encyclopedia (WHE) Tutorials introduce basic concepts associated with the performance of different buildings types during earthquakes. Each Tutorial addresses a single construction type, and is a collection of field and research experiences from across the world on planning, design and construction of each construction method.

These tutorials, in addition to outlining key factors affecting seismic performance, offer recommendations for improved earthquake-resistant construction practices for new buildings and for strengthening existing buildings at risk. The Tutorials contain links to the relevant publications, web sites and video clips.

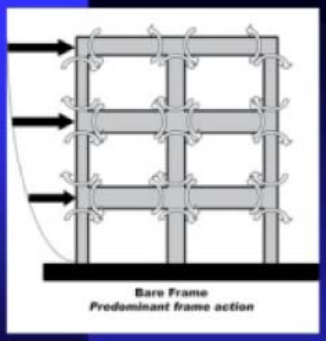
Collapse or damage to buildings often contributes to unacceptably high death tolls and economic losses in a large part of the world affected by earthquakes. Countries in which buildings are built to be earthquake-resistant, have successfully reduced losses of life and property. Hence, a better understanding among owners, designers, construction managers and government officials of how various buildings perform will help influence seismic design and construction, saving lives and reducing losses in future earthquakes.

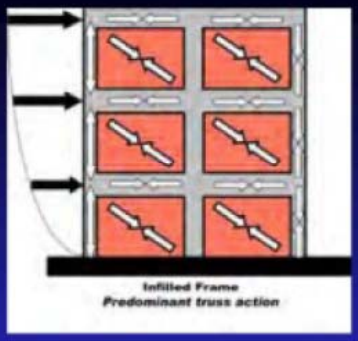
WHE encourages organizations and governments agencies to use these materials in earthquake risk reduction projects.

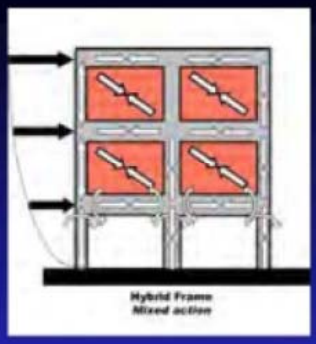
Example of a Tutorial



Contents







Other Resources

SEISMIC STRENGTHENING OF EARTHEN HOUSES USING STRAPS CUT FROM USED CAR TIRES: A CONSTRUCTION GUIDE

Andrew Charleson

The World Housing Encyclopedia welcomes participation & contributors

- 40+ countries
- 200+ participants

1st meeting in Pavia, 2002

Summary

Thank you