



2.10. Report on Monitoring of Construction Practices of Confined Masonry Structure in Peru
(Shizuko MATSUZAKI)

ペルーの枠組み組積造建設作業モニタリング結果の概要と課題 (松崎志津子)

**Report on Monitoring of Construction Practices
of Confined Masonry Structure in Peru**




Pisco, Peru 2007


NPO EVAA
 (Ex-volunteers association for Architects)
 Shizuko Matsuzaki

**The Construction Site of
Monitoring**

The region of Lima



I . Caral (Rural Area)
 Region of Lima,
 Province of Barranca,
 District Supe

**II . Villa Salvador
 (Urban area,
 Surrounding of Capital)**
 Region of Lima,
 Province of Lima,
 District Villa Salvador

http://www.mimem.gob.pe/archivos/ogam/mis/mis_mta_abandonada/mis_mta.htm

The Characteristics of Peru

- **Confined Masonry is popular in Peru**
- **Not much different between rural area and urban area** regarding construction method
- Confined Masonry houses are constructed by **professional** masons and craftsmen
- Construction quality depends on **experience of master** (maestro)
- There are no building drawings in some construction sites

Brick Construction (1) Foundation

Villa Salvador



(2) Masonry

Villa Salvador



(3) Beams and Columns

Caral

Lack of anchorage of beam's reinforcement



(4) Pouring Columns

Caral

Incorporation of foreign object



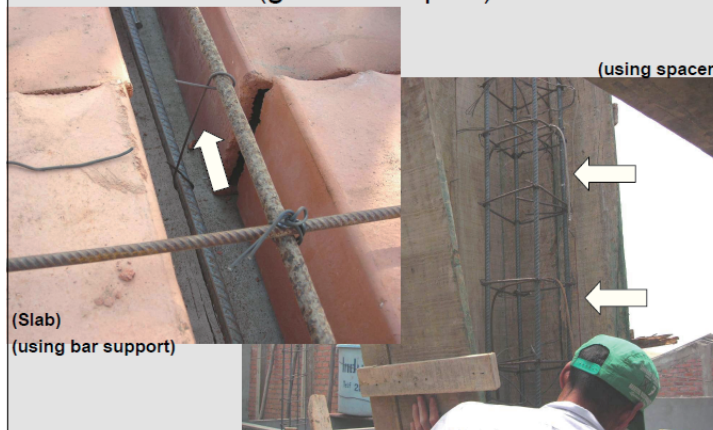
(5) Formwork Removal

Caral

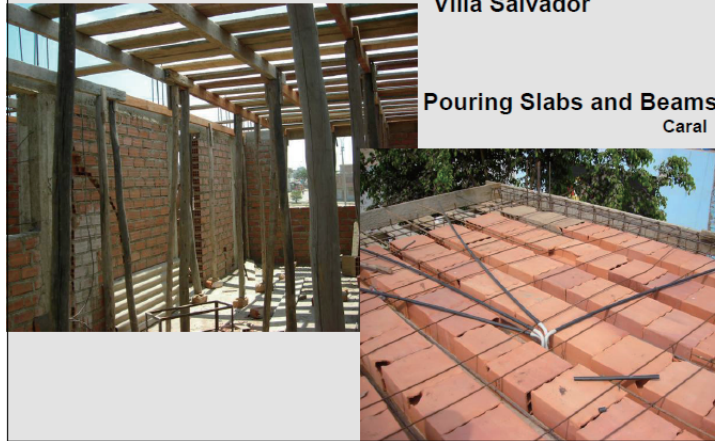
Lack of covering for steel reinforcement



For protective covering of steel reinforcement
(good examples)



(6) Lightweight Slab Formwork



Problems and Why

- Lack of beam's steel **ANCHORAGE (FIRM CONNECTION)** to columns
- Lack of **COVERING** for steel reinforcement

Because of

- No proper supervision
- Less important supervision
for not only foreman but also architect
- No official certification
- Less opportunity to learn new method

Proposed Suggestion

Institutional Management

- Official supervision
- Official certification
- More training