Temporary Housing Supply and its International Cooperative Background after the 1963 Skopje Earthquake

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Back ground of this research

Skopje Earthquake…?

1) A strong earthquake hit Skopje,
2) the capital city of the Socialist Republic of Macedonia, the Federal Republic of Yugoslavia
3) 50 years ago (July 26th, 1963)
Back ground of this research

In case of large scale disaster...

Necessary amount of construction surpasses capacity of construction


http://www.calculator.co.uk/2013/06/us-residential-construction-hits-five-year-high/

The photo is for illustrative purposes only.
Back ground of this research

--> We need prefabricated housing units, delivered from outside of the disaster-stricken area/country.

<table>
<thead>
<tr>
<th>SKOPJE</th>
<th>Tanaka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Disasters</td>
<td>26 Jul. 63</td>
</tr>
<tr>
<td>Population</td>
<td>180,000</td>
</tr>
<tr>
<td><strong>Breakdown</strong></td>
<td><strong>Number of Damaged Buildings</strong></td>
</tr>
<tr>
<td>Dead</td>
<td>Destroyed</td>
</tr>
<tr>
<td>1070</td>
<td>15,800</td>
</tr>
<tr>
<td>Mortality</td>
<td>Damaged</td>
</tr>
<tr>
<td>0.59%</td>
<td>28,000</td>
</tr>
<tr>
<td>Injured</td>
<td>(unknown)</td>
</tr>
<tr>
<td><strong>Number of Roofless People</strong></td>
<td>roofless-rate</td>
</tr>
<tr>
<td>150,000</td>
<td>83.33%</td>
</tr>
</tbody>
</table>

References
* Glen V. Berg (1964), The Skopje, Yugoslavia Earthquake, American Iron and Steel Institute, p.14
** Slavko Janevski et al. (1970), Skopje, Mladost, p.249
*** United Nations (1970), Skopje Resurgent, p.91
**** 新潟市 (1966)、新潟地震誌、p.43
Purpose and method of this research
To understand the reactions for housing taken by the Macedonian and Yugoslavian Governments and their outcome,
gathered information from books and the documents preserved in the city archive of Skopje and field surveys (interviews, measuring, etc; Sept. 2012, Feb. and May 2013) on the former temporary housing districts.

Archive of Skopje
Structure of procurement of housing (Federal Chamber of Economics, Sept. 2, 1963)

1) **Repair** = 8,000 apartments for 50,000 people
2) **Newly construct** = **prefabs** for 70,000 people

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--> Many prefabs were delivered from other Yugoslav Republics and outside of the federation.
Examples of prefabs delivered to Skopje

- The U.S.
- Austria
- Czechoslovakia
- Croatia
- Slovenia
- Bosnian, supplied by Croatia

- Tanaka
- Finnish, supplied by Serbia

- 11.1% donated
- 61.3% from inside of Yugoslavia
- 27.6% imported at the expense of Yugoslavia
Mismatch with everyday life and locality

1) Location in the city of Skopje
2) Size of housing units = rooms, size, etc
3) Product specifications

Suburbanization being triggered by the emergency housing.
Mismatch with everyday life and locality

1) Location in the city of Skopje
2) Size of housing units = rooms, size, etc
3) Product specifications

Case of Kozle street / Serbian made prefab-house

60.4 sq. meters (1964) --> 86.0 sq. meters 1965-67
Mismatch with everyday life and locality

1) Location in the city of Skopje
2) Size of housing units = rooms, size, etc
3) Product specifications

Case of Klenoece street / Slovenian-made prefab-house

40.0 sq. meters (1964) --> 82 sq. meters (1973)
Mismatch with everyday life and locality

1) Location in the city of Skopje
2) Size of housing units = rooms, size, etc
3) Product specifications

During the renovation work, owner of the house lowered level of lintels, which may attribute to the difference of climate between Slovenia (rather cold in winter and need as much sunshine as possible) and Macedonia (rather hot in summer and need more shade for avoiding sunshine).
Examples of prefabs delivered to Skopje

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- 27.6% imported at the expense of Yugoslavia
- 61.3% from inside of Yugoslavia

- the U.S.
- Austria
- Czechoslovakia
- Croatia
- Slovenia
- Bosnian, supplied by Croatia
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Savezna Privredna Komora, September 2, 1963. Izgradnja Smeštajnog Prostora za 120 000 Stanovnika u Skopju (Document from the City Archive of Skopje)

Unknown Author, June 4, 1964. Pregled na raspodelba na stanovi dodeleni na opštinskite sobranija (List of Donated-Prefab-Houses in each district and settlement) (Document from the City Archive of Skopje)

Unknown Author, Unknown date. Informacija za sostojbata i nekoj problemi na objektite dobieni od pomošta (Information about the situation of donated houses and its problems) (Document from the City Archive of Skopje)

Unknown Author, October, 1964. Izveštaj za sostojbata na naselbite izgradieni od pomošta (Report on the situation of donated prefab-houses surveyed by the Skopje City Assembly from September 30th to October 2nd, 1964) (Document from the City Archive of Skopje)