Transport Interchange as city centers of activity

Presentation material/ Search of participants

16th session
27 January - 23 February, 2015 year
Winter University was founded in 1999 by the administration of Irkutsk, with ISTU, and with the participation of institutes and public organizations. Principle MBGU sessions based on the experience of the European University Summer Workshops Urbanism (city of Cergy-Pontoise, France), which was created own original approach and strategy of the summer sessions, proven over 30 years in various countries around the world, which is to create a competitive programs and implementing them in the work of project team comprising of young professionals with different training from different countries and cultures.

This program is an original model of training young professionals of various specialties related to urban planning, and allows them to develop a higher level of conceptual thinking, communication, mastery of analytical and design approaches in an international multi-disciplinary partnership working with dynamically developing town planning system of the city of Siberia. For thirteen years in the design of innovative educational programs attended by more than 1,000 young specialists, assistants, experts, members of the International Jury, representatives of 42 universities, Germany, UK, Spain, Italy, France, Norway, Sweden, Bulgaria, Ukraine, China, Korea, Japan, Lebanon, India, Mexico, Brazil, Mongolia, Russia, Switzerland, Turkey, the U.S. and Georgia and a number of Russian cities: Moscow, Krasnoyarsk, Novosibirsk, St. Petersburg, Volgograd, Rostov-on-Don, Vladivostok, Yekaterinburg, Irkutsk.

Goals and objectives

- is to create competitive programs and implement them in the work of design groups, comprising young specialists with different vocations; different countries and cultures that come to see each other for the first time; exchanging of vast experience in mastering analytic and designed approaches in an international multi-disciplinary partnership working with dynamically developing town planning systems of Siberian cities; to reach a new higher level of conceptual thinking, communication, mastery of analytical and design approaches in an international multi-disciplinary partnership working with dynamically developing town planning systems of Siberian cities.

Auditory

- undergraduates / graduates / young specialists/ professionals in following fields of activity: urban planning design; urban economics; transport engineering; ecology; urban sociology
Relevance of a subject

A transport is the most important link of country’s economic system. It defines in many respects both the country development and level of inhabitants prosperity. Problem decision of ensuring subsequent economic development of the country and quality improvement of inhabitants live level will need in perspective the next one. This is the considerable increase of effectiveness of transport complex functioning, perfection of methods and controlling means by these methods. In this connection a competent using of city transport system potential and a supporting their constant development is utterly important.

The subject of transport-interchange nodes (transport HUBs) becomes very daily and relevant. Residents of cities become more mobile because of urban environment development. Transport HUBs solve the problems of speed and comfort of travel both in cities and area. Modern HUB supposes maximum close to each other type of transport. Usually different transport types are united by one architectural building – U-bahn station (metro), railway, bus station and etc.

According to definition of transport HUBs – this is node element of planning urban system for transport-social function. In this place interchange realizes between different urban public transport types and area transport, or between different lines of one type of urban public transport. Also there is service of passengers and residents by social infrastructure objects.

Planning decisions of urban public transport and accomplishment of around area elaborated by professionals improve quality of transport service for inhabitants. The presence of accomplishment multifunctional space in a city define quality of urban life, improve status of the city and its attraction.

Problems

Dynamic development of cities involves increase transport service. This fact leads to high intensity and compactness transport flow in big cities. Because of street-road network congestion speed and regularity of freight and passenger delivery is reduced. Therefore a cost price is increased, as consequence transport service is increasing also. Also waste of inhabitants free time is increased, the life quality is reduced and a social intensity is appeared. Today passenger in big cities waste from 30 to 60 minutes their time because of transport low speed and traffic congestion. So traffic jams are the most burning social-economic problem in Russian cities.

The increase of transport intension, a lot of commerce objects, unapproved parking lead to unsatisfactory passenger service in public transport, especially on the transport interchange nodes. That is why the question of order traffic and passenger traffic need to solve for the best quality of inhabitants transport service.

In spite of service-market and infrastructure in the cities become to develop well on a periphery, the service quality keeps better on cities centers. Because of inhabitants from area have daily migration to cities centers the quality of transport service must become better.
All transport hubs can be divided into two main categories:

- Transport hubs of regional importance.
- Transport hubs of urban importance.

A passenger transfer from outside transport system on urban transport system supplies with transport HUBs of regional importance. For example: Moscow railway stations (Kursk, Paveletskiy, Belorusskiy and others). The particularity of this transport HUBs are comfortable system of change from outside transport system on urban transport which is organized in comfortable places.

The second group of transport hubs is urban importance ones, which can be divided on intranet transport hubs and complex transport hubs.

The intranet transport HUB provide a change of passengers inside any certain system of passenger transport. For example: the ground passenger transportation, the underground and etc.

The complex transport hub provide a change of passengers between system of the ground passenger transportation, the underground, the commuter rail and etc. This sort of a change transport is the least comfortable for passengers and differ the least level of organization.
Aims and goals
16 session, 2015

There are questions for discussion: the problem of unloading of the main cities roads, improvement links between districts in the city, removing of the way of transit car transport to roundabout roads, removing railway transport to borders of living area. Moreover for the planning structure needs node elements transport-social meaning that will redistribute passenger traffic.

Also the main idea can be consist in finding of planning decisions of inter-modal interchange nodes and decisions of around area accomplishment. The solving these questions allow to reduce the costs of time during interchange.

The main goal is the perfection of inhabitants transport service using urban transport system.

Objectives. Steps of work

1 step - Concept
Collation and synthesis of the raw materials provided by the organizers, including legal and regulatory framework of development of built up areas in Irkutsk.

Identify the circumstances preventing reconstruction of quarters of the city of Irkutsk, dilapidated multifamily residential buildings and development of solutions which eliminate the negative part of this process. Development of basic principles (ideology) for the development of built up areas of the city of Irkutsk, development general principles of the reconstruction process, as well as suggestions on the typology and image of the building.

Identification of spatial, cultural, socio-economic, infrastructure, transport and other features assigned to the team, which would be considered within the framework of the project session.

Requirement for presentation:
- Hand drawing, teamwork
- Analysis of the project site with the use of raw data and taking into account the background information (lectures, excursions) in reference to the scale of the city.
- 2 sheets of A4 print with an open concept of the project in 2 languages.

2 step - Strategy
Integrating concepts, the possible and promising development options for the built up areas of the city, containing strategic and tactical decisions that are applicable for the built up area and should combine both planning and regulatory management tools.

Strategic vision for the reconstruction of blocks (dilapidated multifamily residential buildings), should cover a period of 10-25 years. Tactical decision should be identified for implementing the strategic vision in short settlement period of 1-3 years. Preparation of preliminary design for the prescribed area, demonstrating the applicability of the concept in the current urban and social conditions and also taking into account the individual characteristics of the site.

Requirement for presentation:
- PowerPoint Presentation of 15-20 slides
- Teamwork
- Conceptual design, containing an implementation plan with reconstruction blocks and the technical and economic indicators for the development of built up area

3 step - Project
Finalizing the concepts, strategies and possible options for the development of promising built up areas of the city.

Finalization of the conceptual design with detail, including refinement stages of reconstruction areas and also identifying the technical and economic indicators.

Requirement for presentation:
- PowerPoint presentation of 25-30 slides
- Teamwork
- Final draft containing an analysis of the situation, the concept of project implementation strategy.
- Proposals for high dense residential typologies, alternative ways of infrastructure development blocks (social, infrastructure and transport), new schemes for local authorities and investors which will be used by administration of Irkutsk, Irkutsk Oblast government and developers in Irkutsk.
- 8 pieces of A4 paper in electronic form, illustrating the project in 2 languages.

Types of HUBs

6. The making of comfortable conditions for passenger for waiting public transport.
7. The detachment of separate zone for rapid rail transport (tram).
8. The increasing of roads capacity due to regularity of public transport and increasing of passenger number for one trip.

The solving these problems have to lead to improvement of transport accessibility conditions, prevention of traffic jam formation and improvement of level of service in public transport.
Plan of public centres development

Irkutsk

Plan of the main project traffic streams and transport interchanging nodes

Irkutsk
Examples of implementation

Interchange site at the main train station in Graz, Austria

The project with a budget of 90 million euro, the implementation of which took 2 years - only part of a large-scale program to modernize the station and its surroundings. According to the plan, stop 4 tram lines now hidden under the ground, freeing up space on the surface, and the establishment of transfer hub for city buses.

It is a bus stop - the most conspicuous part of the renovation. It covers nicknamed the townspeople “golden eye” huge steel shed in the form of a ring: its lower surface reflects what is happening on the ground as in a distorting mirror, and the top is covered with a golden metal.

Underground tram station where citizens go down the stairs and escalators, covered only the platform; the absence of this roof provides natural light and it makes it unnecessary emergency fire ventilation: smoke there no place to stay.

The project transport hub «Okrujnaya»

The area of the 80.8 hectares.
The total area of transport hub 29.7 hectares.
Passenger traffic 11.6 thousand in rush hour
The projected area of the formation zone transport hub «Peripheral» is located on the junction of the territories of Northern and North-Eastern Administrative Districts in areas Beskudnikovsky, West Degunino and Timiryazevsky.
Projected TPU «Peripheral» on the Small Ring of Moscow Railway is located at the intersection with the direction Savelovsky Railway (Station «District»).

Transport hub «Planernaya», Moscow

Complex with a total area of 50 000 m2 for: bus station, a shopping arcade, waiting rooms, parking area, a food court.

Transport hub «Planernaya» - the first such facility in Moscow.
Transport hub includes bus stops, car parking for 600 places, shops, cafes and, in fact, is a large shopping center with bus stops.
It is assumed that people will get off from their cars to transport hub, and then leave the car in the parking lot, take a bus or the subway and go to the center of the city to work.
## Condition of participation

### 16th session, 2015

**Participants**
- invites young professionals, students, undergraduates
- must complete and submit an application till 10.10.14, the nominees will be considered by the Academic Council of the Winter University and the Organizing Committee of the Les Ateliers 20.10.14
- participation fee is 300 euros (we provide a contribution – accommodation, meals – breakfast and lunch, common events – parties, banquets, a trip to Lake Baikal, as at the end of workshop, we provide a degree of professional development)
- during the workshop, you can listen to a series of lectures by international experts, get invaluable experience in the design team with experts in different fields
- for participation will be selected 30 people, 20 participants from Europe, America, Asia, and 10 Russian regions - workshop lasts 3 weeks from 30 of January to 23 of February, every week is a stage - concept, design, image and representation of the program implementation, each accompanied by a presentation to a panel of judges who will select the winners for the total

**Assistants**
- invites young professionals, students, undergraduates
- must complete and submit an application till 06.10.14, the nominees will be considered by the Academic Council of the Winter University and the Organizing Committee of the Les Ateliers 13.10.14, priority is given to those who already have experience in international workshops - the duties of assistants included – training workshop during November, December, January remotely, then from January 30 you will support teams during the workshop and help organize events during the session - we provide you with a transfer of up to 25,000 rubles, accommodation, meals – breakfast and lunch, common events – parties, banquets, a trip to Lake Baikal, as at the end of workshop, we provide a degree of professional development
- during the workshop, you can listen to a series of lectures by international experts, get invaluable experience in the design team with experts in different fields
- for participation will be selected 5 people - Workshop lasts 4 weeks from 30 January to 23 February

**Experts Jury**
- invited practicing architects, urban planners, developers, professors with experience in the design and implementation of social and recreational spaces in the city
- we invite you, if you are presenting to our workshop 2 of your students or young professionals from your company
- we take on your travel expenses and hotel accommodation from 17 to 23 February - representatives of the expert jury prepares a report on the session, which they will present at the symposium in the workshop, as well as a presentation of the projects, which will be present for the students of Engineering Institute ISTU
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