Journal of World Architecture

Review Article



"Form" and "Ideographic" Construct the Era of Architectural Features

Yujia Niu*, Shaoqing Meng, Nini Zhang

Guangzhou City Construction College, Guangzhou 510925, Guangdong Province, China

Funding: Project Supported by the Brand Professional. Construction of Guangdong Province, Guangdong Province Higher Vocational Education Brand Professional Construction project for Architectural Engineering Technology, 2016gzpp016.

Abstract: With the progress of human society, the development of architectural features is also very fast. The research on the era of building features under the construction of "table shape" and "ideology" has received great attention. The form of architectural features is accumulated over many years, and the accumulated experience is not available in other ways. The transformation of form and meaning is relative. According to the different architectural structures obtained from the macroscopic and microscopic differences, a unique architectural feature is formed. The simple algorithm is used to construct the system model of the building characteristics of the era of Linyi in order to better analyze, in order to improve our country's architectural influence.

Key words: Architectural features; Architectural structure; Simplex algorithm

Publication date: September, 2020 Publication online: 30 September, 2020

*Corresponding author: Yujia Niu, hell.ivy@163.com

1 Introduction

With the continuous development of the economy, the world is currently facing an increasingly serious problem of environmental pollution and the shortage of non-renewable energy (Mayer H et al 2015)^[1]. Under such a severe form, it requires us to improve our quality of life and at the same time resources and the environment need to be conserved so that the sustainable development of mankind can be realized. Due to the existence of high pollution, high energy consumption,

and resource consumption processes in traditional building construction, such methods have great damage to the ecological environment (Mohareb et al 2016) [2]. It is an urgent task to optimize the construction methods of architectural features. The "table form" and "ideographic" of constitute the era of building features under construction, in the process of building construction (Seo et al 2015) [3]. Under the premise of ensuring the quality and safety of buildings, scientific management and technological progress are utilized. In the use of resources to the maximum, and at the same time reduce the negative impact on the environment. Therefore, it is necessary to speed up the progress of research on architectural features. Green construction is an important process for turning scientific development concepts into practical applications (Hao et al 2016) [4]. It is of great significance to promote the energy consumption of residential buildings and reduce the pollution to the environment, which is conducive to the standardization and standardization of the green construction process in China. The reduction of energy consumption in residential buildings affects global environmental pollution and energy (Shahda M M M et al 2015) [5]. In this way, China's sustainable development strategy can be met. Through the proof of practice, full use of expert experience, the use of qualitative analysis of mutual analysis methods. Then based on this, the reduction of building energy consumption will be optimized.

2 State of The Art

China's Linyi study of architectural features started late. In 2007, China's Ministry of Construction

began to standardize our country's construction industry, which opened our chapter on architectural features (Kim et al 2015) [6]. In terms of construction management and environmental protection, detailed regulations and requirements for construction are provided, which provide a good theoretical basis for China's green construction research. This will allow China to further improve the development process of building construction features, but the lack of a correct evaluation system and the evaluation of the current green construction (Sanchez J et al 2015) [7]. There is no real qualitative indicator in the existing norms in China, so it is difficult to completely evaluate the green construction as a whole. The gray clustering model is used to analyze the system operation of architectural features. Through the collection of information on the current architectural features, a simple algorithm based method has been adopted for the comprehensive evaluation of energy consumption in buildings. Due to our previous evaluation of architectural features, a lot of issues have been considered (Ismail M R et al 2015) [8]. This is also the unknown area mentioned in the above theory is the gray area (Darwish M A et al 2016) [9]. Only in this way the current green energysaving buildings can be evaluate from a comprehensive angle. Some evaluation factors can be considered that been not noticed before. The gray system is constructed according to the color of the unknown domain when the system is built (Marinis V et al 2016) [10]. The study of the era of building characteristics under the construction

With the progress of the society, the study of the architectural features of the construction characteristics of the "form" and "ideographic" has gradually been valued by people of all walks of life. The representation method of form and meaning is not the same. The first is the representation of different objects, and the appearance of the form emphasizes the external macro changes. The representation of the meaning focuses on the internal microscopic changes. The construction and implementation of the temporal copying algorithm for constructing features under the "form" and "ideographic" construction is exactly in line with the trend of this era, and it truly expresses modern architectural features. The origin of architectural features comes from the influence of nature. First of all, it is aimed at the different aspects of the structure, form and function of the buildings. There are many kinds of structures in a building. Different regions and different climates need to build different structures. The selection of the form is related to the function of the building itself and the form is the appearance of the building can also be said to be a macro expression. The three representations of the buildings above are the ones that will be studied. The most classic of the construction and realization of the era of architectural features under the construction of "form" and "ideographic" construction is that the following table is the research questionnaire for the construction of the characteristics of the table under the "conformity" and "intentional" construction. Detailed data is shown in Table 1 below.

Table 1. "Table-shaped" and "Ideographical" construction of the characteristics of the building under the Linyi study questionnaire

Name	area	Performance characteristics	Be well received	percentage
Southern Region,	A	French anthropologist Moss believes that "skill" is usually applied to primitive, traditional, small, or other familiar and common phenomena,	better	78.67%
Northern Region,	В	"technology" points to the objective phenomenon of the modern, complex, sophisticated, and knowledge-based.	better	88.67%
Western Region,	C	This formulation is equally applicable to all the finished products made of human hands (from flint tools to cathedral or precision timings.	better	68.67%
Northern Region	D	that is because it is also applicable, so we call these things a finished product or a product of skill.	good	98.67%

of "form" and "ideology" is of great significance.

3 Methodology

3.1 The Construction and Realization of the Timeresolving Algorithm of Architectural Features under the Construction of "Form" and "Ideographic" According to the above table 1, the survey data of the architectural features of the "form" and "ideographic" construction shows that: A region is the survey data of the southern region and has been widely praised, occupying 78.67%; area B is the northern region's survey data, which has been widely praised, occupying 88.67%; area C is the survey data of the western region, which has been widely praised, occupying 68.67%; area

D is the survey data of the northern region, which has been widely praised, occupying 98.67%. The different percentages in the four regions represent the selection of different architectural forms. The expressions of form and meaning have been compared in the above questionnaire. The difference in data results is the algorithm constructed in the context of constructing the characteristics of the building under the "form" and "ideology". The formation of the algorithm is the important aspect and then the next step is to further formulate the calculation and selection of different forms of architecture. Figure 1 below shows the flow chart of the building features under the construction of "form" and "ideographic". The detailed steps are shown in Figure 1 below.

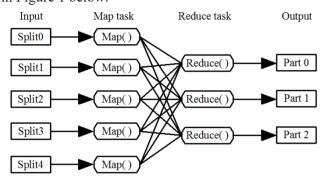


Figure 1. The Flow of Analysis and Analysis of Steps in the Construction of the Times under the Form and Expression

Figure 1 above shows the flow chart of the analysis steps in the construction of the architectural features. According to the figure, the study of architectural features begins with its origin, observes the appearance of its structure, and then conducts a detailed understanding of its internal microstructure. Microstructure is the most important aspect of the study of a thing. As long as the microscopic conclusion is correct, it can be said that the macroscopic conclusion is correct, and numerous microscopic forms constitute the macroscopic representation. The combination of characterization techniques will also greatly improve the accuracy of the times. The combination of intangible and tangible, combined with its data at the same time, is of great help in the study of the construction of the characteristics of the times. By constructing and realizing the simple algorithm of the era of architectural features under the construction of table features and ideographic meanings, it is of transcendental significance for the future research on architectural features and other forms of architectural studies.

3.2 "Form" and "Ideographical" Construction of the Era Algorithm of Architectural Distinctiveness

After completing the above-mentioned construction and implementation of the architectural features of the architectural features under the above-mentioned "table form" and "ideographic" construction, the following detailed formula calculations are required for the simple algorithm. The simplex algorithm is based on a data link. There are corresponding connection nodes at the connection of different data links, which is mainly the problem of node selection and node informationization. The informationization of nodes has grown considerably and each node is given different information. In the calculation, the node is selected to open the detailed information which can be obtained in order to facilitate the operator to conduct the next study. The information processing of fixed points is different from the information processing of mobile points. The first is that for the same type of construction, the fixed point is processed according to a certain trajectory and certain methods, and the selection of the moving point is performed using different node positions. In the past fixed point theory, this is a theory based on fixed nodes which is mainly used to deal with slope issues. It is a very common tool for calculating data. For planning problems, the selection and processing of problems are all after prolonged exploration and verification. The often-occurring nonlinear programming and the problems in various fields all need to be calculated by a simple algorithm. The simple algorithm is used to calculate the architectural characteristics of the times under the construction of table-shaped and ideographic. The algorithm formula is as follows:

$$l(x) = f(x) - x, x \in K^0$$
 (1)

$$\left\| f\left(x^{*}\right) - x^{*} \right\| \le 8 \tag{2}$$

$$l(x) = v - x, x_n = 0 \tag{3}$$

The selection of the above three formulas is related to the selection of coefficients and parameters, and the artificially initiated algorithm makes the above coefficients more accurate. So the following formula is gotten:

$$\sum_{i \in I_n} \lambda_i l(b) = 0 \tag{4}$$

$$\sigma_{k(l)} \subset S^n \times \left\{ 2^{-l} \right\} \tag{5}$$

$$l(x) = \min \left\{ j \mid x_j = \max x_k \right\} \tag{6}$$

The above is the algorithmic formulation of the architectural characteristics of the building under "Form" and "Ideographical" construction. The selection of the algorithm formula is always accompanied by

the numerical method of the fixed point, which is due to the calculations at different fixed points. The fixed point algorithm is formed under a series of research calculations. The calculation formula of the algorithm is referenced and applied to the above formula for studying the simplex algorithm. The new branch exists in the research of each field, and its role is to do different information processing according to different branch nodes. The new branches of mathematics are all due to the needs of time. The original set of simple algorithm is the development between different nodes. The data calculated by the algorithm of the era of architectural features under the construction of "form" and "Ideographical" is represented by the following pie chart. The frequency of the algorithm for this study is shown below. The specific data is shown in Figure 2 below.

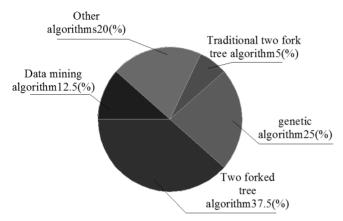


Figure 2. "Simple type algorithm" constructs architectural features in the era of architectural steps and "ideology"

Figure 2 above shows the era of building architectural features using the simple algorithm for the construction of table shapes and ideographs. After the construction and implementation of the first part of the algorithm theory, and the calculation of the second part of the algorithm formula, this round pie chart is represented to represent the research process of the construction of the characteristics of the building under the form and meaning. After the study of this paper and the data in Figure 2 above, about 64.13% are in the eastern region, because the economic development of the eastern region is better, first of all is the study of the architectural features of this article. The economic strength of a city determines the architectural features of the city. Therefore, the selection of architectural forms is different, and the macro and microscopic representations are also different. For the theoretical construction and formula calculation of the simplex algorithm, the percentage of different regions is different. As we all know, the practical application of each outcome is to convince the public through comparative experiments.

Therefore, this article also designed a comparative experiment to verify its usability.

4 Result Analysis and Discussion

After the construction of architectural features based on "form" and "intentional" construction is completed, it is necessary to test the actual construction of the constructed model. Before testing, it is necessary to build a platform that can meet the test requirements. When the algorithm is completed, a reliable test of its own computational performance and practical performance of the target needs to be performed. Therefore, this time, it is also necessary to apply the algorithm model to the actual evaluation of architectural features and perform feasibility tests based on computer software. With our previous algorithmic model design section, this is a binary simplex algorithm model. So this time, a large scientific computer group is used to perform data calculations, and a mathematical function analysis diagram of the required data can be gotten in a short time, as shown in Figure 3 below:

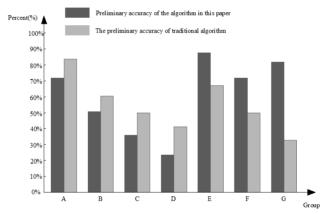


Figure 3. Calculation diagram of function value distribution of important parts of algorithm

In the above figure, the construction of architectural features under the construction of "form" and "ideographic" has greatly improved the computational capability of the algorithm model designed before. This is not only a faster way to perform on our data calculations, but in practical applications, the design scheme calculated through the new algorithm is more accurate and fits into reality and it is able to provide effective support for the actual operation of the building operation. Therefore, the project is designed this time which has achieved great success. After feasibility testing of the algorithm model is performed, the algorithm model needs to be processed for data computing performance. First, data validation was performed on the accuracy of a simple algorithm model.

The decision analysis model was chosen. In the model, three different constraints are selected between the upper and lower limits to perform the data input test, and then compared the test results with the expected values calculated by the formula. The results obtained are shown in Table 2 below:

Table 2. Comparison of test results with expected values calculated by formula

	-			
Initial output data	Expectation value of threshold	Formula expected value	Actual output value of algorithm	
20	10	60	40	
30	10	90	50	
40	10	130	70	
50	10	170	120	
60	10	220	180	

As can be seen from the above table, the simple algorithm model is designed which is very good in accuracy. The largest absolute error is only relatively low relative to the maximum relative error. This error was previously designed to test whether our algorithmic model can perform fast calculations. The point that needs to be tested is that the evaluation index that best represents the model in the simplex algorithm model is the convergent value of the function, and the convergence of the algorithm is tested on the lower side. Convergence is very important for a simple algorithm. If the convergence is too fast, it will be difficult for the algorithm to calculate the best result. If the convergence

is too slow, the calculation result may fail. It is rare for him to test the algorithm model that helps to adjust the algorithm steps. The function convergence value is recorded as shown in Table 3 below:

From the comparison of data in the table, in the convergence times, the convergence rate of the improved algorithm is higher than that of the traditional algorithm and other people's improved algorithm. In the average convergence algebra, the average convergence algebra of the final improved algorithm is lower than the average convergence algebra of the traditional algorithm and other people's improved algorithm. From the above experiments, the improved algorithm has good stability and convergence as well as faster convergence speed. Compared with the other two algorithms have great advantages. The simplex algorithm used has good convergence and is suitable for use. The above test results prove that the algorithm is designed this time which has a great breakthrough. The ability to fully expand the algorithm so that it can be applied to other more other aspects of the evaluation. The architectural features based on the grey system theory can fully evaluate all aspects of the evaluation taking into account the comprehensive evaluation.

5 Conclusion

With the continuous development of the application of computer technology Linyi software, the construction of building features under the "form" and "Ideographic" construction based on Linyi technology has also received more and more attention from the construction related departments. In order to be able to make a reasonable planning and calculation of the building integration evaluation system, it is necessary

Table 3. Results of model function convergence value of genetic algorithm

punctuation mark	Initial coordinate			Т	The displacement			Accumulative displacement		
D1	X	Y	Н	X	Y	Н	X	Y	Н	
D2	34.71	88.19	10.48	0.1	0.1	-0.1	0.6	-0.5	0.3	
D3	45.45	89.38	10.45	0.0	0.0	-0.1	0.6	-0.7	0.3	
D4	55.05	90.42	10.46	0.0	0.0	-0.1	0.5	-0.7	0.3	
D5	64.58	91.48	10.30	0.0	0.0	0.0	0.4	-0.9	0.4	
D6	74.16	92.54	10.48	0.0	0.0	-0.1	0.3	-0.9	0.1	
D7	86.09	93.77	10.56	0.1	0.0	0.0	0.3	-0.9	-0.3	

to improve the original foundation technology and it is very necessary for the current color building integration evaluation system. It is necessary to build and share architectural features under the "simplex" and "ideographic" based on the simple type method. This requires the management and benefits to be improved during the specific implementation process of architectural features. At the same time, it also poses more challenges to the synergy of building information. At present, it is necessary to use Linyi technology to change the management methods of construction enterprise projects. In the construction of a largescale project, a unified and integrated management and processing of architectural features is integrated. In the test process for the algorithm, the number of convergence of the improved algorithm is higher than that of the traditional algorithm and other people's improved algorithm. From the above experiments, the improved algorithm has good stability and convergence as well as faster convergence speed.

Reference

- [1] Mayer H, Gramazio F, Kohler M. Disarmed Strategies: New Machines and Techniques for an Era of Computational Contextualism in Architecture[J]. Architectural Design, 2017, 87(4):110-119.
- [2] Seo, Jeon. The Field Operation and Policies of Repair Works

- for Architectural Treasures in Late Japanese Colonial era based on Repair Works of Hwaumsa Kakhwangjeon[J]. Journal of the Architectural Institute of Korea Planning & Design, 2018, 34.
- [3] Seo, Hyo-Won, Jeon, et al. The System and Process of Repair Works on Gesim-sa Daeungjeon in Japanese Colonial era based on Official Documents of the Government-general Museum of Joseon[J]. Journal of the Architectural Institute of Korea Planning & Design, 2017, 33.
- [4] Hao, Li-Jun Xiao, Zhe-Tao. Research on Information-Based Teaching in Reform and Practice of Architectural Design.[J]. Eurasia Journal of Mathematics Science & Technology Education, 2017, 13(7).
- [5] Shahda M M M. Vision and Methodology to Support Sustainable Architecture through Building Technology in the Digital Era[J]. 2018, 2(1):14.
- [6] Kim, Tae-Sok, Park, et al. A Study on the Time-Sectional Analysis of Apartment Housing related research in Korea[J]. Journal of the Architectural Institute of Korea Planning & Design, 2018, 34.
- [7] Sanchez J. Combinatorial Commons: Social Remixing in a Sharing Economy[J]. Architectural Design, 2017, 87(4):16-21.
- [8] Ismail M R. Soniferous Architecture: From Archaeo-Acoustics Towards the Soundsculpture Aural Era[J]. International Journal of Art Culture & Design Technologies, 2017, 4(1):44-64.
- [9] Darwish M A. [Preservation of the architectural heritage: Sultan Qayet-Bey Castle in Rosetta – Egypt as example][J]. International Journal of Innovation & Applied Studies, 2017, 18(4):2028-9324.
- [10] Marinis V. Sacred Founders: Women, Men, and Gods in the Discourse of Imperial Founding, Rome through Early Byzantium by Diliana N. Angelova (review)[J]. Journal of Early Christian Studies, 2017, 25.

Distributed under creative commons license 4.0 Volume 4;Issue 5