

**Zeitschrift:** Archives des sciences et compte rendu des séances de la Société  
**Herausgeber:** Société de Physique et d'Histoire Naturelle de Genève  
**Band:** 44 (1991)  
**Heft:** 1: Archives des Sciences

**Artikel:** Pallas' theory of the earth in German (1778) : translation and reevaluation : reaction by a contemporary : H.-B. de Saussure

**Autor:** Carozzi, Albert V. / Carozzi, Marguerite

#### Inhaltsverzeichnis

**DOI:** <https://doi.org/10.5169/seals-740194>

#### Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

#### Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

#### Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

**Download PDF:** 05.08.2025

**ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>**

## TABLE OF CONTENTS

INTRODUCTION .....	9
--------------------	---

ACKNOWLEDGMENTS .....	11
-----------------------	----

### CHAPTER I

BIOGRAPHY OF PALLAS .....	13
References .....	13

### CHAPTER II

EIGHTEENTH-CENTURY TERMINOLOGY OF SCHIEFER AND GRANITE .....	15
References .....	17

### CHAPTER III

TRANSLATION OF PALLAS' THEORY OF THE EARTH (1778) .....	18
Pallas' Theory .....	18
Pallas' Footnotes .....	36
Translators' Notes to Theory .....	41
Translators' Notes to Pallas' Footnotes .....	43

### CHAPTER IV

A CONTEMPORARY CRITIC OF PALLAS' THEORY: H.-B. DE SAUSSURE .....	46
Introduction .....	46
Saussure's Excerpts of Pallas' Travels .....	47
Saussure's Excerpts of Pallas' Theory of the Earth .....	51
Excerpts from Saussure's "Loose Thoughts to be used in my Book on Mountains" .....	60
Introduction to my Book .....	60
On the Question of the Formation of Granite by Chemical Precipitation at the Bottom of the Universal Ocean .....	60
Origin and Evolution of Life. Proposal for a New Orogenic Theory ..	61

On Mountains in General and on the Relationship between Primitive and Secondary Mountains .....	62
On Floods ( <i>Débâcles</i> ) and Caverns inside the Earth .....	63
On the Distribution of Large Blocks and Rounded Pebbles by the Final Débâcle on Both Sides of the Alps .....	64
Conclusions .....	64
References .....	65

## CHAPTER V

REVIEW OF SUBSEQUENT ACCOUNTS OF PALLAS' THEORY .....	66
Archibald Geikie .....	66
Arthur Stössner .....	67
Karl von Zittel .....	67
F. D. Adams .....	69
John C. Greene .....	70
V. V. Tikhomirov .....	71
Vasiliy A. Esakov .....	71
Folkwart Wendland .....	72
References .....	77

## CHAPTER VI

MODERN GEOLOGY OF THE URAL MOUNTAINS .....	78
Introduction .....	78
Zone Ia. Western Sedimentary Autochthonous .....	80
Zone Ib. Western Sedimentary Allochthonous .....	80
Zone II. Precambrian (Proterozoic) Metamorphics .....	80
Zone III. Deep Basic to Ultrabasic Intrusives .....	81
Zone IV. Metamorphics and Volcanics of the Main Trough .....	81
Zone V. Hercynian Intrusive Granitic Batholiths .....	81
Zone VI. Eastern Metamorphic and Sedimentary Rocks .....	81
Post-Tectonic Evolution .....	82
Tectonic Comparison of the Urals with the Alps .....	82
References .....	84

## CHAPTER VII

PALLAS' GEOLOGICAL MAP OF THE URAL MOUNTAINS (1773) .....	85
References .....	87

**CHAPTER VIII**

PALLAS' JUSTIFICATION OF HIS FIELD UNITS — COMPARISON WITH THE MODERN GEOLOGY OF THE URALS .....	90
---	----

**CHAPTER IX**

PALLAS' THEORY OF THE EARTH (1778) .....	96
Pallas' Summary of his Field Observations.....	96
New Interpretation of Pallas' Theory of 1778 .....	97
Concluding Remarks on Pallas' Geology in 1778 .....	102
Epilogue: Pallas' Afterthoughts on Granite (1781) .....	103
References .....	105

