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## **Śāstravid: A new paradigm for the study of Indian philosophy**

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### **Project summary**

The aim of the present project is to transform the way Indian philosophical texts are currently studied. In order to do this it will provide a philosophical analysis of a set of central works from the Indian tradition, a set well known for its demanding content and the conceptual complexity of the arguments it contains. This analysis will incorporate a set of cutting-edge methodological principles, the most important of which is the intricate interlinking of conceptual analysis and its textual basis. These principles will be encoded in a web-based electronic tool that will be developed during the course of the project. This tool, called *Śāstravid*, incorporates an example of the new research paradigm and at the same time facilitates further academic research based on the same approach. Its name, *Śāstravid*, which denotes someone knowledgeable about the commentarial treatises (*śāstra*), indicates its focus: to provide a key that unlocks the contents of the texts by bringing together the information contained in commentarial works, both ancient and modern, in such a way that it is easily accessible from the text itself. *Śāstravid* is more specific than other projects providing electronic texts since its focus is philosophical texts composed according to the root text/commentary model.<sup>1</sup> But *Śāstravid* is far more comprehensive than a simple electronic text. Apart from structuring the works, providing commentarial background and linking texts to other texts it contains an *analysis of the text's conceptual contents*. This analysis is linked directly to the texts themselves, which makes it easy to switch between philological and philosophical modes of research. This linkage between conceptual and textual analysis embodies a radically new way of thinking about Indian philosophical texts that is located at the very frontier of the discipline. It pushes the study of Indian philosophical works beyond the domain of textual scholarship into the emerging field of research studying Indian philosophy *as philosophy* that is characterized by a close engagement with the concepts and arguments present in these texts without sacrificing philological accuracy.

The system's electronic nature ensures that the new approach developed here is dynamic and can constantly reflect the current state of research. It is modular rather than monolithic and can be enlarged and enhanced in a step-by-step manner. It is flexible since it does not superimpose pre-fabricated structures onto texts but derives them from the texts themselves. It is multi-dimensional as it allows a simultaneous engagement with the philological and philosophical aspects of a text. The present project will facilitate cooperation between scholars working on Indian philosophical texts, widen access to these materials, encourage their interdisciplinary study, and transform the way research on them is carried out.

### **Śāstravid: Key principles**

Central to the study of Indian philosophical texts is the *combination of conceptual and textual analysis*. The

<sup>1</sup> This focus is a reflection of the structure of the present project. A variety of non-philosophical texts, treating topics as diverse as ancient Indian architecture and erotics, have been written according to the root text/commentary model. These texts could in principle be encoded in the framework *Śāstravid* as well.

two modes of analysis support each other: we need to philological rigour to get at the concepts the texts talk about, but given their abbreviated, highly condensed and sometimes cryptic style we also need a secure grasp of the concepts discussed in order to know how to read the text. It is therefore necessary to jump frequently between the philological and philosophical ways of looking at the text in order to come up with a satisfactory analysis. The new key principle developed in the present project is to *maximise the linkage between the conceptual and textual dimensions* of a text. This new paradigm will be used to provide a conceptual analysis and philosophical investigation of a highly influential set of works composed during the first millennium AD belonging to the Madhyamaka school of Indian philosophy. These works are notoriously demanding and contain highly complex sets of arguments and very unconventional philosophical views. An analysis of these texts is not only important because of their central place in Indian thought and their systematic and historical significance, but they also constitute an ideal test case for demonstrating the power of the new research paradigm.

One of the key aims of the present project is to find out, based on an analysis in *Śāstravid* according to the key principle, how the philosophical theories described in the foundational text of the Madhyamaka school, Nāgārjuna's *Mūlamadhyamaka-kārikā*, were interpreted, elaborated, applied and transformed in a series of commentarial works beginning with the Akutobhayā and culminating in Candrakīrti's *Madhyamakāvātāra*. The difficulty of these texts requires a completely new investigative approach. A detailed analysis of the conceptual content of the texts and their commentaries has to be put in place, this then has to be linked to the relevant passages in the texts and commentaries themselves. In order to maximise the linkage between the conceptual and textual dimensions of a text it is necessary to move beyond the traditional paper-based presentations of texts and present them in a digital form. Replacing the linear presentation in a book by a "three-dimensional" electronic one makes it possible to bring out the intertextual nature of Indian philosophical works, as well as the interlinking between analyses of the texts themselves and analyses of the contents they present. It is only in this way that a satisfactory philosophical account of highly complex and sophisticated Indian works such as the Madhyamaka texts can be given.

## **Śāstravid: the components**

*Śāstravid* consists of two interrelated parts. The *textual part* provides access to the texts, translations and a variety of background information. The *conceptual part* provides an analysis of the contents of the texts by indicating relations between the key concepts discussed. The user will be able to move easily between the two different parts, which incorporate two different ways of working with philosophical texts. In the first case we move from the text to the concepts: by following the order of exposition in a particular text we understand the concepts involved. In the second we move from the concepts to the texts: we consider certain key concepts and their interrelations and try to determine which of the texts support these.

### 1. The textual component

The textual component of *Śāstravid* provides access to ancient Indian philosophical texts by making full use of the compartmentalized verse-by-verse structure of the root text and the layers of commentary expanding on it. At the most basic level the structure of the work is determined by the sequence of verses that constitute the root text. Each verse is then linked to a variety of other elements that provide further information. First of all each verse of a root text will be linked to various translations, both ancient and modern. Thus e.g. the reader will be able to navigate from a Sanskrit verse to two different classical Tibetan translations and a modern English and French translation. Each of these will in turn make it possible to access *philological notes*. Such notes will contain:

- information on variant readings in different texts of ancient translations
- information about particular vocabulary and terminology used, including references to parallel passages
- information about problematic or peculiar grammatical constructions, including references to parallel passages
- possible reconstructions of the text into its original language in cases where the original is no longer extant

Already at this stage *Śāstravid* goes far beyond the mere provision of an electronic text which always presupposes that the reader is actually able to access the text in the language in which it is presented. To use *Śāstravid* for the study of philosophical texts, however, it is already sufficient to know one of the languages into which the text has been translated. As such it makes the text accessible to a wider audience than orientalists with the relevant linguistic competence, in particular it provides access to those researchers

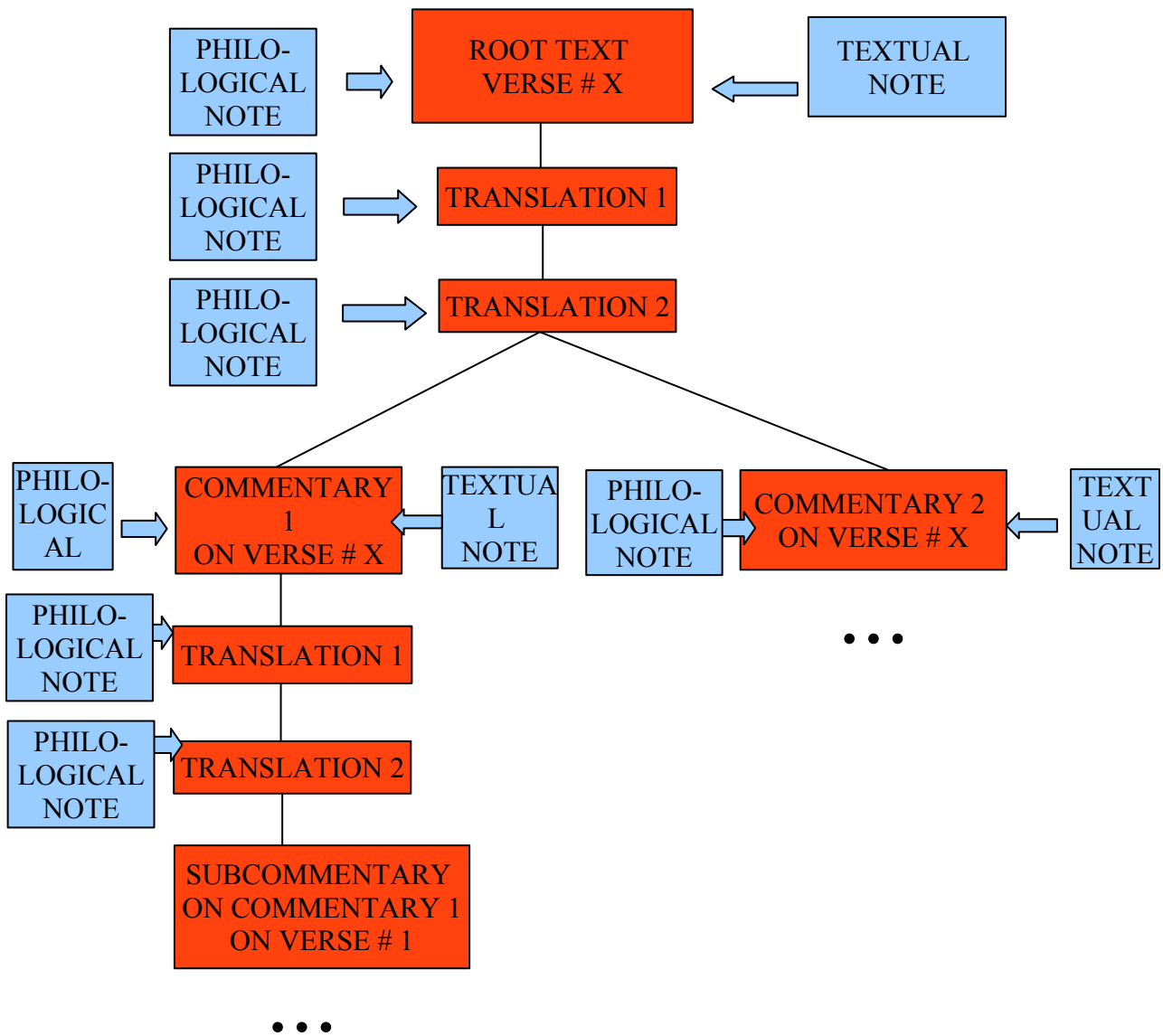
whose expertise is primarily philosophical, not philological.

Apart from the linguistic notes providing information about the linguistic structure of the text and its translations the second main type of notes will be *textual notes*. The textual notes contain further information about the content of the the verse, such as:

- explanations of the meanings of key terms, including links to other passages where these terms are defined or explained further
- explanations of the arguments presented in a verse, indications of different possible interpretations,
- criticisms, and possible responses to the arguments
- identification of quotations
- links to parallel passages in the same as well as in other texts
- bibliographical references to secondary sources discussing the points dealt with in this passage

The textual notes unlock the contents of the text and provide the necessary material for a philosophical study of the arguments presented. Without the information contained in these a serious investigation of the meaning of these texts and their philosophical import cannot proceed. This information, however, can otherwise only be obtained by a laborious study of diverse commentaries both ancient and modern, specialized secondary literature and bibliographies most of which will be only available in a small number of well-equipped libraries. *Śāstravid* brings all this information together and makes it available to researchers independent of their location.

The description of the system so far has presupposed that we only study a single text. Most of the power of *Śāstravid*, however, derives from the possibility of studying a root text and associated commentaries at the same time. Apart from accessing the notes on a particular verse from the root text the user will also be able to navigate to a specific passage of another text, namely that section of a commentary on the root text which comments on the verse in question. In fact there may be several such commentaries, each of which is encoded in *Śāstravid* in the same manner as the root text. Each commentary will come in different translations, and each section will be provided with its own set of philological and textual notes. In case there are commentaries on commentaries the whole structure can be repeated at a lower level so that the user can progress from a verse of the root text to a commentary, and then to a commentary on the commentary. The layout of the system can be most easily understood in terms of the following diagram:



## 2. The conceptual component

When working with philosophical texts (in particular with those belonging to the Indian tradition) it is useful to think in terms of *propositions* and *authorities*. Propositions are philosophical theses that express relations between different concepts an author employs. Authorities are portions from a set of canonical texts that provide support for a proposition. Work within a specific tradition of philosophical texts (whether it is purely exegetical or whether it tries to develop the arguments contained in these texts further) is characterised by linking the key propositions it asserts to authorities from that tradition. The conceptual component of *Śāstravid* organizes the relations of concepts discussed in the texts in a series of propositions and links these back to the textual component. A simple example might make this clearer. In one of the works of Nāgārjuna (who is one of the authors to be included in the textual component of *Śāstravid*) we find the assertion that he does not hold any philosophical theses. The textual component of *Śāstravid* will therefore contain the proposition:

P1 Madhyamakas do not hold any philosophical theses.

This proposition is supported by a variety of authorities (i.e. passages from Nāgārjuna's works):

A1 Vigrahavyāvartanī 29

A2 Vigrahavyāvartanī 63

A3 Mūlamadhyamaka-kārikā 25: 24 etc.

There are, however, also passages in both the root texts and commentaries which assert that Nāgārjuna *does* hold philosophical theses. Thus another proposition will say that

P2 Madhyamakas hold philosophical theses.

This is supported by a different set of authorities, such as

A1 Lokāṭīastava 8

A2 Yuktiṣaṣṭikā 45

A3 Prasannapadā 13: 3 etc.

*Śāstravid* can contain mutually inconsistent propositions in order to reflect the different kinds of interpretative positions that have been applied to the root texts. Propositions can act as explanations of other propositions, e.g. P2 could be specified further by the propositions

P1.1 Madhyamakas do not hold substantially existent philosophical theses.

or

P1.2 Madhyamakas only produce arguments to refute their opponents but do not endorse positions of their own.

each of which would be supported by further authorities in turn. *Śāstravid* embodies a new research paradigm that allows a smooth transition between the textual and the conceptual component. Reading *Mūlamadhyamakakārikā* 25:24 in the textual component of *Śāstravid* the user will find a note to the effect that this verse has been used as an authority for the proposition that Madhyamakas hold no philosophical theses. The user is then able to navigate to this position in the conceptual component and can proceed from there to other propositions that explain it further, or back into the textual component to other authorities that also support that proposition. Similarly a user could begin by accessing a proposition in the conceptual component, then move to the textual component to examine the authorities that support it, move from there to other passages of the same text, then back to the conceptual component to see what propositions this authority supports and so on.

## Originality and innovative elements of *Śāstravid*

Apart from the close linkage between conceptual and textual analysis the other key innovative principles embedded in *Śāstravid* can be summed up under four main headings. First of all the system is **dynamic**. One of the key benefits of electronic resources is that the information they contain can be changed. The information *Śāstravid* contains is freely available to all users, but a specified subset of registered users has the ability to modify and add contents. When new publications appear that deal with passages of texts encoded in *Śāstravid* they can be included under the relevant bibliographic information. As research progresses, previously unidentified quotations can be traced and such information can be included immediately. As new texts are added, new links to parallel passages in texts already present can be added. *Śāstravid*'s contents can therefore be made to reflect the current state of research. Secondly, *Śāstravid* is **modular**. Although the usefulness of the system increases as more and more texts become available, there is no necessity to enter an entire text or an entire translation at one time. Separate chapters or sections of texts or even single verses can be added, together with as many or as few philological and textual notes as is feasible at the time. This modular nature allows *Śāstravid* to function as a research tool in two important ways. Firstly, *Śāstravid* can be used to *enhance past research*. Partial translations of many crucial philosophical texts have been published in journals or are contained in unpublished doctoral dissertations that are not readily available or difficult to find. The unpublished texts are likely to remain unpublished as publishers will have a limited interest in bringing out materials of this highly specialized nature. Texts that have been published in journals are often not available to scholars in countries where subscriptions to these are not easily available, such as India and Nepal. It is therefore frequently the case that a lot of information on a given text is available, however, it cannot really be used by scholars unless it is brought together and made accessible in a single framework. With the consent of the authors and publishers, texts of the above kind can be made available in *Śāstravid* in order to allow free, convenient, world-wide access for scholars working on these materials. Linked to the texts already present in *Śāstravid*, the usefulness of these now barely accessible fruits of research will be vastly enhanced.

In addition to the retrospective enhancement of past research by making it more readily available and putting it all in the right place, *Śāstravid* can also play a rôle in *coordinating present and future research*. The system is particularly useful for scholars working at different geographical locations who plan to work together on a translation, commentary, or analysis of a text. The material can be encoded in *Śāstravid* by the

users and access can be restricted to the cooperating scholars. Each can then add their own translations, philological and textual notes (including links to texts in the publicly accessible parts of *Śāstravid*). These can then be accessed and modified by all the scholars in the team. Labour can easily be divided: parts of the group can work on the translations and notes of different parts of the text, but everybody can see what everybody else is doing. *Śāstravid* provides a central depository of all the information relevant for carrying out the project. In order to coordinate future research users can also leave a note at a particular section of a text they are working on. This facilitates potential future interaction between researchers working on the same material and minimizes the risk of needlessly duplicating work.

Thirdly, *Śāstravid* is **flexible**. Once set up the *Śāstravid* framework can be used to encode any Indian philosophical text composed according to the root text/commentary model, or indeed any Asian philosophical text following this model. *Śāstravid* therefore constitutes a framework that scholars will find useful for encoding the texts they are working on, ensuring a quantity and diversity of contents far greater than any amount of texts that could be encoded in the system within the scope of any single project. A further manifestation of *Śāstravid*'s flexibility is the fact that it can be used by researchers at different levels and with different interests. The ability to access a text, translations and commentaries make *Śāstravid* an equally useful tool for a student who wants to read a text for its content in a modern translation, a scholar from a neighbouring discipline in search of information for comparative purposes, as well as for a specialist who is researching very specific philological, textual or philosophical questions.

Finally, *Śāstravid* is **multi-dimensional**. Rather than engaging just with the text or just with its contents it does both. It is based on an unconventional and truly interdisciplinary research paradigm that combines methods from philosophy and philology and structures philosophical works both from a textual as well as from a conceptual perspective. This innovative kind of conceptual analysis with direct links to its textual basis has never been applied to the study of philosophical texts before and constitutes a highly original approach to the study of these materials. It pushes the study of Indian philosophical works beyond the domain of mere textual scholarship into the emerging field of research studying Indian philosophy *as philosophy* that is characterized by a close engagement with the concepts and arguments present in these texts without sacrificing philological accuracy.

## Significance and impact

*Śāstravid* opens new horizons for the study of Indian philosophy and will transform the way research in this field is carried out. *Śāstravid*'s impact is based on the following four key features:

**Facilitating cooperation** : *Śāstravid* will have a major impact on the way Indian philosophical texts are studied because it is created with specific considerations for the needs of scholars working on these materials. Given the complex nature of most research projects in this area, which often require expertise in disciplines as diverse as paleography and philosophy, include sources from two or three Asian languages and demand acquaintance with distinct fields of knowledge from a variety of Asian cultures, collaborative research is often indispensable. Many of the best translations of difficult philosophical texts in the Indian tradition have in fact been produced by entire committees of scholars. The main difficulty with collaborative ventures is the coordination of research at different places. *Śāstravid* provides a common "virtual desk" on which groups of scholars can work on a project, be this a translation, a commentary, or a systematic investigation of problems discussed in Indian texts.

**Widening access** : It is an unfortunate fact that much of the Western research on Indian philosophical texts, including editions, translations, commentaries, and specialized thematic studies is difficult to obtain in many Asian countries in which these texts originate. Much of the material is not available in electronic form, and specialized research libraries are often difficult to access. *Śāstravid* makes texts, translations, and notes available wherever there is an internet connection. It widens access to them in the countries of their origin and provides the basis for a better collaboration between scholars trained in the traditional Asian systems of education and Western researchers.

**Encouraging interdisciplinarity** : *Śāstravid* constitutes a tool which will make it easier for researcher on Indian philosophical texts to have an impact on neighbouring disciplines. The provision of translations, together with clearly structured outlines of the texts and copious textual notes that explain key terms and break down the arguments will make it easier for scholars without knowledge of the relevant languages to access these texts. Scholars from Philosophy, Classics, Religious Studies and the History of Ideas whose primary research focus is not the study of Indian texts will be able to access their contents for comparative purposes. This will facilitate a greater interpenetration between the study of Indian philosophy and adjacent disciplines. *Śāstravid* will open up new horizons for the collaborative study of Indian philosophy, and will increase participation in it, both for scholars in Asia as well as for Western scholars from other disciplines within the humanities.

**Transforming research** : The new methodology of interlaced textual and conceptual analysis embodied in

*Śāstravid* will transform the way research into Indian philosophical material is conducted. It demonstrates that sound philological foundations and clear conceptual analysis are two indispensable aspects of research into ancient philosophical works that have to proceed side-by-side and mutually support and enhance each other. It provides an example of this new research paradigm by presenting an analysis of a core set of texts from Indian philosophy and provides a framework in which further research along the same lines can be carried out.

## Structure of the project

*Śāstravid* will be constructed in three phases. During phase 1 the first intermediate goal of the project, the programming of the *Śāstravid* framework will be accomplished. By the end of this phase a web-based multi-user system for encoding fully searchable texts in a variety of languages, structured according to the root text/commentary model and containing linked to philological and textual notes will have been set up. Preliminary work for the analysis provided in the conceptual component will also be carried out during phase 1. The remaining two phases will add the majority of the contents to the framework. Phase 2 will accomplish the second intermediate goal, uploading a variety of texts (described in greater detail below), adding philological notes, as well as adding further parts of the conceptual analysis. The final phase 3 will supplement these texts by a comprehensive set of textual notes and further refine the contents of the conceptual component.

### Phase 1: providing the framework

The framework in which the texts to be encoded in *Śāstravid* can be represented will be programmed first. Most of the information will be stored in XML (Extensible Markup Language) files, a format for transporting and storing data that strongly supports encoding a variety of languages via Unicode. The system will be able to represent texts in a variety of Asian languages: Sanskrit (Devanagari as well as IATS, Harvard-Kyoto and ITRANS transliterations), Tibetan (Tibetan script and Extended Wylie transliteration), as well as Japanese. The language of the user interface will be English. The various fields for entering data (texts, translations, philological and textual notes) will be added, together with the possibility of interconnecting them in the relevant way. The structuring of the contents according to the root texts and commentaries, the interlinking between different texts, as well as the addition of extensive philological and textual notes is the first feature that distinguishes *Śāstravid* from any existent depository of electronic texts presently available for Indian studies. Its second distinguishing feature is that it allows for user input. *Śāstravid* will be web-based and freely available to registered users. Users who have gone through a vetting process will also be able to add to or modify the existing philological and textual notes; they will also have the possibility of encoding additional texts in *Śāstravid*.

### Phases 2 and 3: adding the contents

During this project a fixed number of texts will be encoded in *Śāstravid*. Once the system is sufficiently stable and well-developed, however, all registered users will be able to encode texts in this framework, they can then make them available to all other users or only to a restricted group. *Śāstravid* becomes increasingly more useful the more texts are encoded in it, as more and more connections between texts can be established. In the context of the present project a substantial number of texts from the Madhyamaka school of Indian philosophy will be encoded in *Śāstravid*, and a conceptual analysis of these will be developed. Despite their difficulty these texts are popular and well-known, frequently studied and generate plenty of interest. The fact that they come from a single philosophical school maximizes *Śāstravid*'s ability to exhibit connections between texts and their commentaries. We will thereby be able to provide an unprecedentedly detailed, conceptually sophisticated and textually well-grounded analysis of some of the most challenging philosophical works in the history of Indian thought and will also demonstrate the full potential of *Śāstravid* as a framework for research into Indian philosophical texts.

## The project team

The project team will consist of six members: the Principal Investigator (PI), an IT consultant (ITC), two researchers (R1 and R2) and two PhD students (R3 and R4).

**Role of R1:**

R1 will hold a graduate degree in Oriental studies and will have excellent knowledge of Sanskrit as well as specific experience with working on Sanskrit philosophical texts. R1 will also possess good reading knowledge of Classical Tibetan and basic reading knowledge of French and German. R1 will be responsible for encoding those of the above texts which are available in Sanskrit, as well as the English and German translations. He will also assist R2 with the encoding of the texts available in Tibetan. In cooperation with R2 R1 will ensure adequate linkage between texts, translations, and commentaries and will supply the philological notes. R1 will spend 20 weekly hours on the project during phase 2 and two weekly hours during phase 3. While most of the work of R1 will be concentrated during phase 2 of the project his availability during the final phase 3 will ensure that he can give advice to R3 and R4 on philological questions arising in connection with the writing of the textual notes.

**Role of R2:**

R1 will hold a graduate degree in Oriental studies and will have excellent knowledge of Classical Tibetan as well as specific experience with working on Tibetan philosophical texts. R1 will also possess reading knowledge of Sanskrit and basic reading knowledge of French and German. R2 will be responsible for encoding those of the above texts which are available in Tibetan. In cooperation with R1 R2 will ensure adequate linkage between texts, translations, and commentaries and will supply the philological notes. R2 will spend 25 weekly hours on the project during phase 2 and two weekly hours during phase 3. While most of the work of R2 will be concentrated during phase 2 of the project his availability during the final phase 3 will ensure that he can give advice to R3 and R4 on philological questions arising in connection with the writing of the textual notes.

**Role of R3:**

R3 will work on a PhD under the supervision of the PI, focusing on philosophical problems discussed in the *Mūlamadhyamaka-kārikā* and the *Buddhapālita-vṛtti*. R3 will hold a degree in Buddhist Studies or Philosophy and possess good reading knowledge of Sanskrit and Japanese. R3 will contribute the textual notes to the *Mūlamadhyamaka-kārikā*, the *Akutobhayā*, and the *Buddhapālita-vṛtti*, including the description and analysis of arguments, identification of quotations, provision of links to the conceptual component, parallel passages and bibliographical information (including the secondary literature available in Japanese), by collating information from commentaries, both traditional and modern, monographs, and journal articles.

**Role of R4:**

R4 will work on a PhD under the supervision of the PI, focusing on philosophical problems discussed in the *Madhyamakāvatāra*. R4 will hold a degree in Buddhist Studies or Philosophy and possess good reading knowledge of Classical Tibetan and basic reading knowledge of French and German. R4 will contribute the textual notes to the *Madhyamakāvatāra*, the *Madhyamakāvatāra-bhāṣya*, and the *Madhyamakāvatāra-tika*, including the description and analysis of arguments, identification of quotations, provision of links to the conceptual component, parallel passages and bibliographical information, by collating information from commentaries, both traditional and modern, monographs, and journal articles.

R3 and R4's participation in the project will be closely integrated with their PhD work as the texts they are studying are the same they are annotating for *Śāstravid*. Moreover, they will acquire valuable skills for their professional and career development. They will become acquainted with using and constructing cutting-edge electronic resources employed in research on Indian philosophical texts, will enlarge their knowledge of texts and commentaries, and, by interaction with the PI, will acquire important philological and philosophical expertise in structuring, analyzing and explaining key works of Indian intellectual history.

R3 and R4 will have to make regular research trips to libraries at London and Oxford since the necessary collections are not available at Durham.