

On the Hijacking of the Intellectual and Archival Legacy of Piero Sraffa: A Comment on Ajit Sinha (2016) – *A Revolution in Economic Theory: The Economics of Piero Sraffa*

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Ajit Sinha's (2016) book purporting to be a thorough analysis of the intellectual and archival legacy of Piero Sraffa is subjected to the rigors of scholarly scrutiny where it is demonstrated that serious and egregious errors abound in terms of basic standards of archival scholarship. Also contained in the book are highly questionable interpretations and conclusions of Sraffa's economic theory. The basic thrust of the article is that the reader of Sinha (2016) should at all times proceed with caution and be wary of the unsuspecting pitfalls and often disingenuous trappings of the book.

Keywords: Sraffa, Sraffa archive, Sraffian economics

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INTRODUCTION

Sinha (2016) is a difficult book to read, and an even more difficult one to comment upon. The subject matter is the intellectual and archival legacy of Piero Sraffa. The book purports to be a thorough analysis of the subject based in close textual study of the heretofore unpublished archival material that appears in the Sraffa papers. Indeed, the archival material that is cited - which as of the time of the writing of this comment accounts for some of the most expansive use of the material extant in the published arena - is precisely what is supposed to distinguish the book from all other literature heretofore directed to Sraffa's analytical, theoretical, and archival endeavors.

In order to fully appreciate this matter, the history of the events that surround the publication of Sinha's book needs to be better understood. It

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came out in Summer 2016. The online appearance of color digital images of the archival material uploaded onto the Janus web portal of the Wren Library, Trinity College, Cambridge, came second, only a few months later in September 2016.¹ The year 2016 therefore represents a significant watershed date for Sraffa archival scholarship. On the one (dark) side of the watershed only those who took the expensive trip to the Wren would have been able to study the material directly; this is Sinha's milieu. On the other (bright) side of the watershed Sraffa's papers finally became accessible in terms of the original color images themselves, thereby no longer held intellectual-hostage by having to discern between the interpretation of the scholar versus the ideas of Sraffa himself.

At the time, very few people (the present writer being one) knew of the impending uploading of the raw material in the form of color digital images onto the Janus portal. Among those unaware was Ajit Sinha; indeed, his book may be many things, but an honest account of the archival legacy of Piero Sraffa certainly is not one of them. Sinha's appropriation of Sraffa's intellectual and archival legacy in fact *requires* murkiness and confusion, two bountiful aspects of Sraffa scholarship prior to the digital images becoming available. In this respect Sinha's book represents the last, indeed the nadir, of the flawed old method of Sraffa archival scholarship, one replete with the alchemy of reading archival tea-leaves and thereby soothsaying what Sraffa "really meant"; and the reader of Sinha's book gets generous helpings of precisely that. Nobody gets Sraffa right according to Sinha except him. Nobody understands the archival material more than him, and nobody but him has a better understanding of what Sraffa "really meant", from the strawmen characterized as "Sraffa's followers" such as Professor Garegnani, Centro Sraffa scholars, Heinz Kurz, et. al., to Professor Samuelson and others from the mainstream. Throughout the book, Sinha asserts what Sraffa "thinks" on at least 18 occasions, what Sraffa "believes" on at least 2 occasions, what Sraffa "wants" on at least 4 occasions, what Sraffa "wonders" on at least 2 occasions, and what Sraffa "realizes" on at least 17 occasions.²

Such is the tenor of the bold claims made throughout Sinha's book. To add gravitas to the endeavor, copious amounts of what is purported to be Sraffa's archival material is quoted liberally. The sheer volume of this has the effect to give pause to even the most seasoned Sraffa scholars: in the reviews of both Roncaglia (2017) and Levrero (2019, forthcoming), although critical of the analytical arguments Sinha makes, each recognize the extent of the material cited.³ But the phrase "purported to be" is

purposeful. In fact, as now all can see for themselves once they consult the uploaded images on the Wren website, what Sinha presents is an incomplete caricature of Sraffa's archival material.

SINHA'S USE OF THE ARCHIVE

Sinha takes astonishing liberty with the archive. He misquotes, miscites, and furtively places himself into many of the phrases and passages. As these are bold claims, readers need not unflinchingly take the present writer's word and are encouraged to consult the material themselves. They may do so by perusing the material on the Janus portal and/or in an online document available on the present writer's *Digital Sraffa* webpage entitled *Table of Concordance for the Errors in Transcription of the Sraffa Archive in Sinha (2016)*. The latter table of concordance contains original color images of every page from the archive cited in Sinha's book presented in a three-column tandem presentation containing (i) in the first column the often erroneous quotes directly taken from the page where it appears in Sinha's book, with any errors demarcated in bold font, (ii) in the middle column the color images with the portions of the page that are actually quoted clearly demarcated by square brackets, and (iii) in the third column a proper transcription with clear indication of all errors of omission and commission, also demarcated in bold font. As an illustration of the types of egregious errors involved, consider the following quote:

Table 1: Example of Egregious Error in Sinha's Transcriptions

Sinha transcription (p. 45)	Sraffa archive text (D3/12/3:23)
<p>"...if we accepted this sort of utility as an ultimate standard we would reason in a circle, explaining the utility of A with the utility of B, the utility of B with the utility of C, etc: worse than that, as of course the utility of B (being the rejected alternative, on the given scale of prices) being smaller than the utility of A, that of C smaller than that of B, etc., we would ultimately by successive degradations reach a commodity whose utility is practically zero, and this, through the chain of equivalences, would be equal to utility of A!" (D3/12/3:19).</p>	<p>"...if we accepted this sort of utility as an ultimate standard we would reason in a circle, explaining the utility of A with the utility of B, the utility of B with the utility of C, etc: worse than that, as of course the utility of B (being the rejected alternative, on the given scale of prices) being smaller than the utility of A, that of C smaller than that of B, etc., we would ultimately ^{by successive degradations} reach a commodity whose ^{utility} value is practically zero, and this, through the chain of equivalences, would be equal in utility to A" (D3/12/3:23) {"19" is Garegnani's pagination}</p>

This particular quote has several errors. First is an error of commission: Sinha erroneously transcribes the end of the quote to read

“...would be equal to utility of A!”, whereas the correct transcription should read “...would be equal in utility to A!”. Second consider the errors of omission: the inserted phrases “by successive degradations” and “utility” are not reported in the Sinha transcription as insertions but rather are (in what may be seen as a sleight of hand maneuver) made to seem as though they simply flowed smoothly from Sraffa’s mind to his hand, when clearly that is not the case. Also note how Sinha eliminates the deleted word “value” in whose place Sraffa put “utility” without any indication that Sraffa had made this deletion and insertion. Perhaps to some this may seem to be splitting hairs. But scientific inquiry out of archival material should not be a fuzzy enterprise, and the scholar who chooses to engage in meticulous archival work must be held to the highest standards possible; in no instance should there be such blatant violations of the norms and ethics of archival scholarship. Certainly Sraffa himself was very meticulous when it came to his own handling of the Ricardo archive in his masterful eleven volume collection of *The Works and Correspondence of David Ricardo*, and one can only think of the horror with which he would have greeted his own archival material being handled so poorly.

The final error in this example is the erroneous attribution of the document itself where Sinha presents the document as “D3/12/3:19” thereby ascribing the page number as “19”, but in fact the correct page number is “23” according to the Wren Trinity convention; once readers retrieve the image themselves from the Janus Portal, this will be seen from the penciled convention in the top right corner of the image as “Sraffa D3/12/3 23”. There is a “19” that also appears in the upper right corner, but this is actually in Professor Garegnani’s hand, a fact we know to be the case because on the top of an earlier page D3/12/3:8, written by Garegnani is the disclaimer that “From here on numeration on top is by P.G.” which starts at page 4; this means that the first three pages of the entire set of notes have pagination in Sraffa’s hand, but the remaining from 4 up to 71 are those of Professor Garegnani. This was written in the mid-1980’s as part of his efforts with Krishna Bharadwaj to provide an initial inventory of the material. This fact is confirmed by the alternative Bharadwaj-Garegnani convention in the lower left corner that reads “A4/4xix”, where the number nineteen is written in lowercase Roman numerals. Such are the kinds of sloppy errors that appear throughout almost all of Sinha’s transcriptions, as the *Table of Concordance* shows for the 120+ pages of cited material.

Taking the bad advice of the editor at Palgrave, Sinha unilaterally decides to abandon Sraffa's own use of underlined emphases and instead adopts that of italics, a practice which goes against the convention that serious Sraffa archival scholarship adopts wherein Sraffa's original underlined emphasis is retained.⁴ As already shown above, another unilateral convention that Sinha adopts that departs from the scholarly norm is the failure to indicate both insertions and deletions that Sraffa makes rather copiously in his notes.⁵ This is not to suggest that all such insertions and deletions need necessarily be made extant when citing the material, but standard grammatical conventional indicators such as ellipses (...) and notice as to what phrases are inserted and where such insertions belong is in fact warranted, yet in the Sinha account wholly missing. The effect is to render the archival quotations in Sinha's account as smoothly consistent phrases and passages, whereas in fact the process which Sraffa was engaged was anything but smooth. At times and very inconsistently, curly brackets are inserted into the actual quotations; these are words and passages that Sinha himself adds, ostensibly to contribute to the flow of the passages. In all we are left with reading Sinha's Sraffa, not Sraffa himself. This is both disingenuous and dishonest, and whatever one may think of the arguments advanced in the book, readers should be forewarned and armed with the knowledge of this fact.

THE SRAFFA ARCHIVE

Scholarship out of the Sraffa archive remains in its infancy. I believe that an ordered structure of the material is warranted for honest and thorough scholarly accounts of the material to be advanced. This requires that the archival convention from which the material is cited must be revamped, and a more thorough account of the overall structure and content of the material be presented. The reason for this is that the Sraffa archive is in fact a mosaic of inter-connected yet independent note-sets consisting of pages of notes, some single-paged and others tens of pages long. The note-sets are embedded in thousands of pages taken from hundreds of files. By this is meant that any particular quotation taken from the archive is often from the page of a larger set of notes. The first indication of this character of the Sraffa archive comes in Garegnani (2005) where in a detailed textual study of what is referred to in the literature as the "pre-lectures" (archived as D3/12/3) he takes advantage of knowledge of the Bharadwaj-Garegnani inventory and therefore is able to account for the note-set character of the material.⁶

The history of the various arrangements of the Sraffa archive can be found in Bellofiore and Carter (2017) and Carter (2018). In the latter document, which appears in the present author's Researchgate portfolio, the completion of Garegnani's (2005) hybrid convention organically interfacing the Bharadwaj-Garegnani inventory with the Wren Trinity catalogue for Sraffa's notes on *Production of Commodities by Means of Commodities* (PCMC) is provided; this section of the Sraffa archive is designated according to the Wren Trinity catalogue as D3/12. Dubbed the Trinity 2.0 arrangement, in Carter (2018) the Bharadwaj-Garegnani inventory is applied to the various files in D3/12 and note-set character of the material brought to light; also provided as appendices are tables including hyperlinks to the various files, note-sets, and pages for the archival notes Sraffa wrote in the years 1928-32, which includes Sraffa's Lecture Notes on the Advanced Theory of Value (D2/4) and the first thirteen files of Sraffa's Notes on (D3/12/1 through D3/12/13).⁷ Readers of the present article are encouraged to go to that online document and click through the myriad of links in order to see exactly how discernment of the archive as a mosaic of note-sets manifests. A more thorough and intellectually cogent archival convention is vital for a resurgence in interest in Sraffa and will serve as a safeguard against the unscrupulous and opportunistic use of his unpublished notes.

The Sraffa archive is a massive collection of material that comprises literally tens of thousands of mostly handwritten pages. Most of the scholarship that has utilized the material has limited itself to a few sections of the overall archive, with files that constitute Sraffa's notes on PCMC being the source of the lion's share of the published account and discussion in the literature. This section of the archive (D3/12) contains 115 file folders and well over 7,000 mostly handwritten pages penned in three distinct periods of activity over 30 years. The first period from 1927 to 1932 roughly appear in the file folders D3/12/1 through D3/12/13; the second period from 1940 to 1946 roughly appear in file folders D3/12/14 through D3/12/44; and the third and final period from 1955 to 1960+ roughly appear in file folders D3/12/45 through D3/12/115.⁸ It is useful to consider the rough periodization of the archive in Table 2 below; note here also included are Sraffa's Lecture Notes on the Advanced Theory of Value (archived as D2/4), written from 1928-32, as well as D1/91 Sraffa's Black Note Book from 1943.

Table 2: Meta-structure of the various files in Sections D2/4 and D3/12 of the Sraffa archive

1927-32 (1 file from D2/4 and 13 files from D3/12): Sinha cites from 11 of the 13 (76.9%)	1942-46 (31 files): Sinha cites from 11 of the 31 (35.5%)	1955-60; 1963; 1967 (71 files): Sinha cites from 9 of the 71 (12.7%)
D2/4: <i>Lecture Notes on the Advanced Theory of Value</i> (1928-31)	D3/12/30: Fixed capital – Final (Dec 1942)	D3/12/93: Drafts & type non-bases (Nov 57)
D3/12/1: <i>Notes and formulae on price</i>	D3/12/31: Small notebook (post Dec 1942)	D3/12/94: Letter from Besicovich (23 Dec 57)
D3/12/2: <i>Notes w Besicovich and Ramsey</i> (1926-55)	D3/12/32: <i>New Models</i> (Jan 1943)	D3/12/95: Acknowledgements in Italian (1957-60)
D3/12/3: <i>Notes for Lecture 1928-31</i> (Nov 1927)	D3/12/33: <i>Notes</i> (Jan – May 1943)	D3/12/96: Rent filling last gap (1958)
D3/12/4: <i>Notes on 'Loops'</i> (Winter 1927-28)	D3/12/34: Fixed K & marginal prod (May–Aug 1943)	D3/12/97: Items for recypting (Aug 1958)
D3/12/5: <i>Notes on 'Loops'</i> (Winter 1927-28)	D3/12/35: <i>Notes</i> (Sep 1943–Jan 1944)	D3/12/98: Historical Appendix (Feb 1959)
D3/12/6: <i>Notes on surpluses</i> (Winter 1927-28)	D3/12/36: <i>Notes</i> (Jan – Mar 1944)	D3/12/99: Appendix D, typist copy (Feb 1959)
D3/12/7: <i>Notes including on language</i> (1928)	D3/12/37: <i>Proofs for all-poss. product</i> (Apr–Jun 1944)	D3/12/100: Cancelled (1959)
D3/12/8: <i>Notes mostly equations</i> (Lent 1928)	D3/12/38: <i>Notes</i> (Jul–Sep 1944)	
D3/12/9: <i>Notebooks on elasticity</i> (1928, 1932)	D3/12/39: <i>Notes</i> (Sep 1944 – Jun 1945)	
D3/12/10: <i>Notebook</i> (Dec 1927 – Mar 1928)	D3/12/40: <i>Notes</i> (Oct 1944 – Jun 1945)	
D3/12/11: <i>Notebook</i> (Nov 1927)	D3/12/41: <i>Notes</i> (Nov – Dec 1945)	
D3/12/12: <i>Notebook</i> (Summer 1929)	D3/12/42: <i>Notes for work after PCMC</i> (1945-67)	
D3/12/13: <i>Notes on rent & 'normal profit'</i> (Oct 1929)	D3/12/43: <i>Notebook w/draft of Preface</i> (post 1945)	
1942-46 (31 files): Sinha cites from 11 of the 31 (35.5%)	D3/12/44: <i>Notes</i> (Aug 1946-48)	
D3/12/14: <i>Notes on compound commodities</i> (1942)	D1/91: <i>Black Notebook</i>	
D3/12/15: <i>First equations (w/o surplus)</i> (1942)	D3/12/67: <i>Notes for Chapters III and IV</i> (1956)	
D3/12/16: <i>Notes on [crosscap]</i> (1942-46)	D3/12/68: <i>Scarfolding</i> (1956)	
D3/12/17: <i>'Prove and finding list'</i> (1942-5)	D3/12/69: <i>Notes on standard system</i> (1956)	
D3/12/18: <i>Notes</i> (Aug 1942)	D3/12/70: <i>Uniqueness of Stand sys</i> (1956)	
D3/12/19: <i>Agricultural Schemes</i> (Aug 1942)	D3/12/71: <i>Copy used by typist</i> (Mar 1956)	
D3/12/20: <i>Models</i> (Aug 1942)	D3/12/72: <i>Copy used for 2nd typing</i> (Aug 1956)	
D3/12/21: <i>Industrial Schemes and mise</i> (Sep 1942)	D3/12/73: <i>Switching, rents and income</i> (1957)	
D3/12/22: <i>Closed Vertical Combine</i> (Oct 1942)	D3/12/74: <i>Self-replacing n. i.; Torrrens</i> (1957)	
D3/12/23: <i>Notation and Formulae used</i> (Oct 1942)		
D3/12/24: <i>Reduction</i> (Oct 1942)		
D3/12/25: <i>Rent</i> (Nov 1942)		
D3/12/26: <i>Value of stock, industrial eqns.</i> (Nov 42)		
D3/12/27: <i>Fixed capital</i> (Nov–Dec 1942)		
D3/12/28: <i>Joint Product</i> (Nov 1942 – Mar 1943)		
D3/12/29: <i>Marginal Products</i> (Dec 1942)		
1955-60; 1963; 1967 (71 files): Sinha cites from 9 of the 71 (12.7%)		
D3/12/42: <i>Notes for work after PCMC</i> (1945-67)		
D3/12/45: <i>Balance of Wages and Profits</i> (Nov 1955)		
D3/12/46: <i>Notes w/ Draft of Preface, etc.</i> (1955-59)		
D3/12/47: <i>Ag. to Ind. schemes; switch</i> (1955-57)		
D3/12/48: <i>Fixed capital</i> (1955-57)		
D3/12/49: <i>Fixed capital and joint prod</i> (1955-58)		
D3/12/50: <i>Rubbish</i> (1955-58)		
D3/12/51: <i>Palma, Jan– Mar 1955</i> (Jan – Mar 1955)		

- D3/12/52: Majorcan draft (Mar 1955)
 D3/12/53: Discard (almost certainly) (Summer 1955)
 D3/12/54: Notes left Cambridge Sep 55 (Aug 1955)
 D3/12/55: Proof of labour value (Oct - Nov 1955)
 D3/12/56: Drafts on Standard comm. (Dec 1955)
 D3/12/57: Draft of Standard System (1955-56)
 D3/12/58: Prefabricated later chapters (1955-56)
 D3/12/59: Balance of wages and profits (1955-56)
 D3/12/60: Discarded notes on switching (1955-56)
 D3/12/61: Discarded used drafts (1955-56)
 D3/12/62: Fluctuations of price $w/? r$ (1942-56)
 D3/12/63: Pages from folder Oct 1956 (1944-56)
 D3/12/64: Discarded notes on St Corn (1956)
 D3/12/65: Something useful on joint prod (1956-57)
 D3/12/66: Notes (1956-58)
- D3/12/75: Discarded drafts on reduction (1957)
 D3/12/76: Drafts §§ 43-48 (Jan 1857)
 D3/12/77: Footnote on joint products (Jan 1957)
 D3/12/78: Drafts of §§ 43 - 44 (Mar 1957)
 D3/12/79: Drafts joint products (Mar 19557)
 D3/12/80: Copy typist §7 and §§42-65 (Mar 1957)
 D3/12/81: Ch. IX Effects on Joint Prod. (Mar 57)
 D3/12/84: Agony of non-basics (Jan-Aug 1957)
 D3/12/85: Collapse non-bses & reconstr (Jul 57)
 D3/12/86: Typescript pp. VII and VIII (Aug 57)
 D3/12/87: Non-basic multiple syst (Aug-Nov 57)
 D3/12/88: Ch. X Fix Cap & Apx Sub-sys (Aug 57)
 D3/12/89: Ch. VII, VIII, Appdx C. (Dec 1957)
 D3/12/90: MS Ch. XII Switch Methods (Dec 57)
 D3/12/91: Ch. IX Effect of joint prod (Dec 1957)
 D3/12/92: Queries to Bestcovitch (Sep-Nov 1957)
- D3/12/101: Retyped proofs Ch IX, §83 (Apr 1959)
 D3/12/102: Figures, captions, formulae (1959)
 D3/12/103: Typescript (Dec 1959)
 D3/12/104: Typescript of Italian edition (Dec 59)
 D3/12/105: Typescript of Italian edition (Dec 59)
 D3/12/106: First proof (Dec 1959)
 D3/12/107: Bound first proof (Dec 1959)
 D3/12/108: Second proof (Jan 1960)
 D3/12/109: Cards of index (1959)
 D3/12/110: Graphs and captions (1959)
 D3/12/111: Correspondence (1960-)
 D3/12/112: Correspondence to printing (1958-62)
 D3/12/113: Addresses for comp. copies (1958-60)
 D3/12/114: Correspondence on Italian edn (1960)
 D3/12/115: Note for Italian Edn (1969)

The bolded italicized files in the table are the ones that Sinha cites from. As discussed below, clearly for a book ostensibly written to elucidate the complexities contained in the vast archive as an effort to delineate the “economics of Piero Sraffa” as the subtitle indicates, a woefully sparse number of files in the vast archive are actually consulted, a number that dwindles the further from the period of the 1920’s the analysis trudges. And when we dig even deeper into the actual content cited from these files consulted, this woefully sparse number of files is complemented by an even more woefully sparse number of documents, and pages within documents, from those files.

SINHA’S QUOTATIONS

Such is the vastness and complexity of the Sraffa archive. Yet none of this is ever mentioned in Sinha’s account.⁹ The only citation schema used by Sinha is that of the Wren Trinity, and as we have already seen above, in some places he even gets that wrong. The only place where the reader of Sinha’s book is given any description of the archive is in a paragraph that appears in the Preface, quoted here in full:

“This book is heavily based on Sraffa’s unpublished notes which are housed at the Wren Library, Trinity College, University of Cambridge. Since most of these notes are hand-written and Sraffa had a habit of going back and annotating them, they are obviously not very neat. In quoting from these notes I have followed the publisher’s advise to change single underlines to italics and double underlines to single underlines along with italics. In the case of squiggly underlining, we have kept it as in the original and all Sraffa’s double quotation marks are changed to single quotation marks. Sraffa had a habit of using both parentheses and large or square brackets in his notes, so I have used only middle brackets or braces for my insertions. All the parentheses and large brackets are Sraffa’s own and at times when Sraffa uses more than one word for an expression as alternatives by writing them above or below that word, I have put them in parentheses. All the citations from Sraffa’s unpublished notes are shown by the file numbers given to ‘Sraffa Papers’ by the archivist Jonathan Smith, such as (D3/12 ...) etc.” (p. xiv).

This paragraph comprises the extent to which the reader is given an explanation (or anything else for that matter) regarding the archival material upon which “this book is heavily based”. And as we already have seen,

errors abound throughout the transcriptions and one is never really certain as to what Sraffa is writing, what Sinha is amending, what has been included and what is missing, and how the different quotes relate to each other as well as in the overall structure and context of the archive. Obviously, Sinha has no time to be bothered by such notions, and instead moves directly into using the archive to reverse-engineer an argument completely of his own making, not one discerned from close study of the material.

In all, Sinha cites from the archive on over 120 different occasions. With a few minor exceptions, the vast majority of these citations come from D3/12, with a few from D2/4.¹⁰ From Table 2 above we see that the overwhelming majority of the files cited come from material from the 1920's, with 11 out of 13 files (76.9%). This is followed by 11 out of 31 (35.5%) of the files cited from material in the 1940's, and 9 out of 71 (12.7%) of the files cited from material in the 1950's. Clearly the material cited in Sinha's book is highly skewed towards the earlier period of the 1920's. The overall aggregate of the files cited from D3/12 is 30 out of 115 for a total of 26% of the files consulted. And these numbers, as low as they are, in fact represent an upper limit. When we look deeper into the actual material cited from files themselves, we find that the paucity of files consulted is exacerbated by an even more striking paucity of actual documents - and pages within those documents - consulted from these files. This latter paucity is shown in Table 3.

Table 3 provides the per-document account of the material Sinha cites from D2/4 and D3/12. Column (1) lists the files consulted. Column (2) provides the aggregate number of documents (note-sets)¹¹ consulted in relation to the total documents in the file. Column (3) lists the individual documents consulted in relation to the total. Column (4) provides the actual number of pages Sinha cites from the document in question in relation to the total number of pages in the document; this is where the proverbial rubber hits the road, as it is from here the content cited in Sinha's book appears. And lastly column (5) has the page numbers in Sinha (2016) where the citations appear; note that the Wren Trinity convention for individual pages is not included in this table. To illustrate how to read this table, consider the third entry D3/12/3; these are the aforementioned pre-lectures that are the subject of Garegnani (2005). Column (1) has the file name according to the Wren Trinity convention. Column (2) indicates that the file folder contains in total 28 note-set documents, and that Sinha will cite from 4 documents of these 28. Column (3) lists each of these four documents consulted: the 4th, the 16th, the 18th, and the 21st, all of which come out of

Table 3: Individual Documents Cited in Sinha (2016) from D2/4 and D3/12

(1) File Folder (Wren Trinity)	(2) Aggregate No. of Docs Consulted out of total docs in file	(3) Individual Docs Consulted out of Total Docs in File	(4) Pages in Docs Cited out of Total Pages	(5) Pages in Sinha (2016) where appears
D2/4: Lectures notes on the Advanced Theory of Value (1928-31)	1 of 44 docs	Doc 3 of 44	6 of 156 pp	58, n., 155, 156, 157
D3/12/2: Notes w Besicovich and Ramsey (1926-55)	1 of 13 docs	Doc 12 of 13	1 of 4 pp	52
D3/12/3: Notes London 1927	4 of 28 docs	Doc 4 of 28	10 of 21 pp	42, 43, 44, 45, 48, 48 n. 20
		Doc 16 of 28	2 of 7 pp	46
		Doc 18 of 28	2 of 4 pp	47
		Doc 21 of 28	2 of 11 pp	48
D3/12/4: Notes for Lecture 1928-31 (Nov 1927)	5 of 18 docs	Doc 2 of 18	1 of 3 pp	69, 70
		Doc 4 of 18	1 of 1 pp	70
		Doc 5 of 18	1 of 8 pp	72
		Doc 12 of 18	1 of 1 pp	74
		Doc 14 of 18	1 of 6 pp	72
D3/12/5: Notes on 'Looms' (Winter 1927-28)	1 of 16 docs	Doc 1 of 16	1 of 4 pp	51, 52
D3/12/6: Notes on surpluses (Winter 1927-28)	2 of 5 docs	Doc 3 of 5	2 of 12 pp	53, 54
		Doc 4 of 5	2 of 14 pp	57, 58, 59
D3/12/7: Notes including on language (1928)	10 of 73 docs	Doc 1 of 73	1 of 2 pp	111
		Doc 18 of 73	2 of 6 pp	112, 113
		Doc 22 of 73	1 of 5 pp	155
		Doc 29 of 73	3 of 3 pp	60, 61, 189
		Doc 30 of 73	1 of 1 pp	45, n.19
		Doc 32 of 73	2 of 9 pp	113, 155

(1) File Folder (Wren Trinity)	(2) Aggregate No. of Docs Consulted out of total docs in file	(3) Individual Docs Consulted out of Total Docs in File	(4) Pages in Docs Cited out of Total Pages	(5) Pages in Sinha (2016) where appears
		Doc 39 of 73	5 of 7 pp	62, 63, 64, 65
		Doc 57 of 73	1 of 9 pp	113
		Doc 60 of 73	5 of 5 pp	82, 83, 84, 86, 87
		Doc 73 of 73	2 of 2 pp	102
D3/12/9: Notebooks on elasticity (1928, 1932)	2 of 96 docs	Doc 8 of 96	2 of 3 pp	66, 67
		Doc 59 of 96	1 of 1 pp	67
		Doc 52 of 73	3 of 3 pp	70, 71
D3/12/10: Notebook (Dec 1927 – Mar 1928)	2 of 73 docs	Doc 71 of 73	2 of 2 pp	71
		Doc 74 of 97	1 of 1 pp	192
D3/12/11: Notebook (Nov 1927)	3 of 97 docs	Doc 80 of 97	2 of 2 pp	68, 69
		Doc 92 of 97	1 of 1 pp	68, 69
D3/12/13: Notes on rent & 'normal profit' (Oct 1929)	1 of 14 docs	Doc 14 of 14	4 of 7 pp	79, 80
D3/12/16: Notes on [Crosscap] (1942-46)	4 of 31 docs	Doc 9 of 31	1 of 3 pp	114
		Doc 10 of 31	1 of 1 pp	115
		Doc 11 of 31	1 of 2 pp	117
		Doc 31 of 31	1 of 4 pp	114
D3/12/17: 'Prove and finding list' (1942-5)	1 of 5 docs	Doc 3 of 5	1 of 5 pp	131
D3/12/19: Agricultural Schemes (Aug 1942)	1 of 3 docs	Doc 3 of 3	1 of 5 pp	119, 120
D3/12/21: Industrial Schemes and misc (Sep 1942)	1 of 10 docs	Doc 9 of 10	1 of 66 pp	121, 122
D3/12/24: Reduction (Oct 1942)	1 of 6 docs	Doc 6 of 6	2 of 28 pp	122, 123
D3/12/26: Value of stocks, industrial equations, (Nov 1942)	1 of 1 doc	Doc 1 of 1	2 of 15 pp	116, 117

(1) File Folder (Wren Trinity)	(2) Aggregate No. of Docs Consulted out of total docs in file	(3) Individual Docs Consulted out of Total Docs in File	(4) Pages in Docs Cited out of Total Pages	(5) Pages in Sinha (2016) where appears
D3/12/33: Notes (Jan - May 1943)	1 of 37 docs	Doc 33 of 37	1 of 1 pp	124, 125
D3/12/34: Fixed K & marginal prod (May-Aug 1943)	1 of 21 docs	Doc 11 of 21	1 of 1 pp	125
D3/12/35: Notes (Sep 1943-Jan 1944)	2 of 26 docs	Doc 21 of 26	2 of 2 pp	126, 127, 128
		Doc 25 of 26	2 of 5 pp	128, 129
D3/12/36: Notes (Jan - Mar 1944)	2 of 27 docs	Doc 19 of 27	1 of 2 pp	136
		Doc 21 of 27	9 of 27 pp	129, 130, 131, 132, 133, 134, 135
D3/12/37: Proofs for all-pos.1 product (Apr-Jun 1944)	1 of 63 docs	Doc 6 of 63	1 of 2 pp	146
D3/12/46: Notes w/ Draft of Preface, etc. (1955-59)	2 of 20 docs	Doc 2 of 20	2 of 5 pp	151, 181
		Doc 9 of 20	1 of 4 pp	182
D3/12/52: Majorca draft (Mar 1955)	1 of 2 docs	Doc 1 of 2	1 of 33 pp	172
D3/12/53: Discard (almost certainly) (Summer 1955)	2 of 15 docs	Doc 1 of 15	1 of 4 pp	148
		Doc 4 of 15	1 of 11 pp	172
D3/12/54: Notes left Cambridge Sep 55 (Aug 1955)	1 of 10 docs	Doc 6 of 10	1 of 2 pp	150
D3/12/59: Balance of wages and profits(1955-56)	1 of 24 docs	Doc 26 of 24	1 of 3 pp	148
D3/12/71: Copy used by typist (Mar 1956)	1 of 1 doc	Doc 1 of 15	2 of 36 pp	185, 189
D3/12/72: Copy used for 2nd typing (Aug 1956)	1 of 5 docs	Doc 3 of 5	1 of 49 pp	189
D3/12/74: Self-replacing n. i.; Torrens (1957)	1 of 8 docs	Doc 7 of 8	1 of 1 pp	173, 174
D3/12/75: Discarded drafts on reduction (1937)	1 of 6 docs	Doc 6 of 6	1 of 4 pp	131

the 28 documents in the file.¹² Column (4) shows the actual number of pages that are cited from each of the documents in relation to the total pages in the document: the 4th has 21 pages, of which 10 are cited; the 16th has 7 pages of which 2 are cited; the 18th has 4 pages of which 2 are cited; and the 21st has 11 pages of which 2 are cited. Column (5) shows the pages where these citations appear in Sinha's book.

Each of the entries in the table are read in the same manner. What becomes clear is that even of those documents that are more heavily cited, presented in Sinha's book is an incomplete account of the subject matter contained in the documents. And even of those pages that Sinha cites from, only on rare occasions is the entire page transcribed and more often than not the reader is given only a portion of the actual words that appear on the cited page. We therefore see that the scope of the raw archival material upon which Sinha's book "is heavily based" telescopes narrower and narrower the more the actual content is scrutinized.

Figure 1 below is a graph of the page number cited data in column (4) in Table 3:

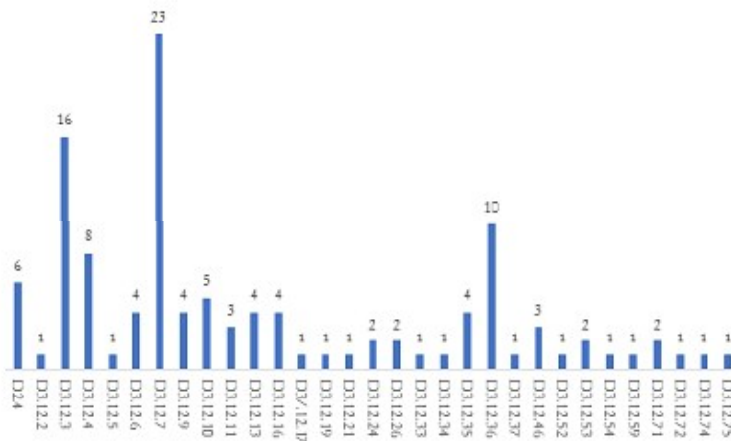


Figure 1: Number of pages cited in Sinha (2016) for material in D2/4 and D3/12

It is clear that Sinha heavily skews his archival quotations with material from the 1920's. Out of the three periods, 75 pages are cited from material in the 1920's, 28 pages are cited from the 1940's, and a sparse 14 pages are cited from material in the 1950's.

Sinha approaches the archival material of Piero Sraffa like a strip-mining firm approaches a mountain: strictly extractive with little concern for the damage wrought by the endeavor. That is why it is so painful for

some of us to read his book. The actual feel and complexity of the Sraffa papers is lost when reading those pages and one senses little care to get it right, only to get it out - and be first to do so.

SINHA'S MAIN ARGUMENT

In the Preface Sinha is actually quite candid as to the purpose of his study: “Unfortunately both the followers of Sraffa, led by Pierangelo Garegnani, as well as his critics, led by Paul Samuelson, read [Sraffa’s] theory to be an equilibrium theory of prices in a competitive market economy. The contention of this book is that this interpretation was built on a false understanding of Sraffa’s condition of the uniform rate of profits across industries. My arguments and evidence are *designed to show* that the condition of equal rate of profits in Sraffa’s system of equations is a logical necessity, or a mathematical property, of his equation system once wages are taken to be given from outside. If my argument is accepted then it becomes incumbent on those interested in pure economic theory to take a second look at Sraffa’s contribution and investigate what could be built on the new foundation provided by him” (p. xiii; italicized emphasis added).

Readers of Sinha’s previous work on Sraffa (Sinha, 2012, 2014; Sinha and Dupertuis, 2009) will recognize the same *modus operandi* at work here, namely the hobby-horse of advancing what is purported to be a novel and innovative approach to the notion of a uniform rate of profit for Sraffa. Sinha’s dictum is that Sraffa rejects said uniformity by virtue of the forces of inter- and intra-industrial competition (lumped under the heading of “gravitation”) in market economies, and instead advances an explanation that it is a purely logical (mathematical) feature of his (Sraffa’s) equations. And here the words in the italicized emphasis of the above quote are actually quite revealing: the analysis in the book including the appropriation of the archival material has been *designed to show* this pre-determined conclusion. Absent is the curiosity of an exercise intended at least in part to elucidate the complexities of Sraffa’s own intellectual journey, and instead Sraffa’s archival material is liberally quoted – as we have already seen often erroneously and always out of context – to serve as a malleable compound used as a filler for the cracks and holes in Sinha’s analysis. This is what is meant when it is said he reverse-engineers the argument.

I have never thought much of Sinha’s argument on the profit rate; the idea that Sraffa was only concerned with a scholastic mathematical exercise

as regards uniformity in the general rate of profit is completely out of kilter with the degree of importance to which Sraffa considered his own ideas to have. In this capacity sympathy to the critiques levied against Sinha by Kurz (2012), Roncaglia (2017), and Levrero (2019) is warranted, and readers are directed there for fuller accounts of the arguments specifically against Sinha's "logical necessity" dictum.

THE TURNING POINT AND THE ULTIMATE STANDARD OF VALUE

Chapter 2 of Sinha (2016) is entitled "Before a New Beginning" and ends with what can only be seen as an appropriation of the language and ideas of someone else, in this case Professor Garegnani and the notion that after 1927 Sraffa made a "turning point" from his early thinking on these matters and began to develop thoughts along the lines of the Classical economists and Marx. It is in fact astonishingly brazen that Sinha actually subtitles the final portion of this chapter as "The Turning Point" and yet only at the very end of the chapter in the last paragraph finally mentions Garegnani, and even then in the following disingenuous way:

"Garegnani (2005) has *also* characterized this note of Sraffa's as a 'turning point' in his theoretical position. Our readings of this note, however, differ substantially" (p. 49; italicized emphasis added).

What is so disingenuous about this is that Garegnani did not "*also*" characterize anything; rather Garegnani *coined the phrase "turning point" and introduced the idea in the first place.*

It is in this "turning point" section that readers are given the first onslaught of archival material, all of it from the 1920s. In this section Sinha cites from 16 pages of D3/12/3 out of four of the 28 documents in the file, and one citation from D/12/7 which only appears in a footnote. Recall that Sinha is not aware that the file D3/12/3 is a collection of note-sets and instead characterizes it as a single document (that this is true is further evidenced in the quote above with reference to the file as "this note").

In this section Sinha reproduces a document which is to play a crucial role in his subsequent arguments in which the mis-transcribed word is far from innocuous or an innocent mistake. It fundamentally relates to two important ideas that will reign supreme throughout the entirety of the book, namely that of *cause* and *change*. Sinha make much out of these notions, as he ascribes to Sraffa the struggle over grappling with and finally rejecting the theory of value in terms of it being an indication of the "ultimate cause"

in the value of a commodity which in a mechanistic manner leads to “change”. Indeed, the index contains the entry “ultimate cause” with a total of 6 different page references provided, and a word search of the manuscript uncovers at least 21 times in which the term it is used. The problem is that Sraffa himself does not use the term “ultimate cause” where he is initially attributed to have done so, and instead writes “ultimate standard” – another mistake in transcription. In other words, Sinha in the rollout of one of the main pillars of his argument ostensibly gleaned from close study of the Sraffa archive, mis-transcribes the passage “ultimate standard” as “ultimate cause” and then makes tremendous hay out of Sraffa’s purported struggle with the “causal” aspects in theory of value in the period of 1920’s. A side-by-side comparison of the Sinha transcription and the actual documents is seen in the following table:

**Table 4: Mis-transcription of “Ultimate Standard” into “Ultimate Cause”
(Sinha p.44 vs. D3/12/3:13-4)**

Sinha text (p. 44)	Sraffa archive text (D3/12/3:13-14)
<p>“But it is a fact that while classical economists were inquiring into the ‘prime cause’ and the ‘ultimate cause’ of value, the modern attitude is largely to ignore those questions: not that they have been solved, nor that they have been proved to be insoluble (although some assumptions of this sort lies more or less vaguely in the back of the mind of many economists) but simply they are ignored, and the main system of modern economic thought proceeds to analyse the ways in which change takes place, without being hindered by the fact that little is known of the ultimate causes of change...”</p>	<p>“But it is a fact that while classical economists were inquiring into the “prime cause” and the “ultimate standard” of value, the modern attitude is not largely to ignore those questions: not that they have been solved, nor that they have been proved to be insoluble (although some vague assumptions of this sort lies more or less vaguely in the background of the mind of many economists) but simply they are ignored, and the main stream of modern economic thought proceeds to analyse the ways in which change takes place, without being hindered by the fact that little is known of the ultimate causes of change.”</p>

There are several errors in the Sinha transcription. First are the errors of omission where the words Sraffa crossed out are not extant nor is there any indication of any deletions. Second are two errors of commission. The first is when the word “stream” in Sraffa’s text is mis transcribed as “system” (“main stream” vs. “main system”); although sloppy this may perhaps be an innocent enough mistake.

However, the second error of commission is more damning, as Sinha uses the term “ultimate cause” whereas Sraffa himself writes “ultimate standard”. This is completely unacceptable, as Sinha falsely asserts a point

of argumentation that Sraffa does not make. It is readily admitted that in other places in the document Sraffa does use the term “ultimate cause” in relation to value. But Sraffa in fact is very clear to *distinguish* this from the idea of “measurement” and “standard”. For example, in one of the many pages in the note-set that are not cited by Sinha, Sraffa refers to a letter that Ricardo wrote to Malthus (letter 392, Ricardo to Malthus, 9 October 1820, *Works VIII*, p. 278), and then comments:

“[T]he contrast between the idea we have to-day of the question of value and that of Ricardo and his contemporaries is impressive. ‘P.{olitical} E.{onomy} you think is an inquiry¹³ into the nature and causes of wealth; I think it should rather be called an inquiry into the laws which determine the division of the produce of industry amongst the classes who concur in its formation’ (Letter to Malthus...). Now...it is with this problem in view that T.{heory of}V{alue} were worked out. First of all, *prior to the causes of value, was that of measure of value* – not of relative value as we understand it, but of some sort of absolute value, which did not refer to a relation of commodities between each other, but as a relation of commodities as a whole to mankind – for estimating the wealth of a nation: *traces of this notion are continuously to be found in the confusion between an ‘absolute standard’ and the ‘ultimate cause’ of value*” (D3/12/3: 8-9; italicized emphases added).

Admittedly there is no space to launch into a full-on disquisition on the issues raised either in Sraffa’s quote or in Sinha’s interpretation, but the italicized emphases are sufficient to demonstrate that whereas Sinha conflates “cause” and “standard” to the point of erroneously transcribing the latter as the former, Sraffa in fact saw these two notions as quite different, with “measure” as being prior to “cause”, and even laments the “confusion” between the two!

It is also in this section of Chapter 2 that a possibly much more nefarious use of the Sraffa archive may in fact be present. On page 45 of the Sinha text, there exists two passages that are remarkably similar in wording to the text that appears in the Sraffa archive, yet are passed off as if they came from Sinha’s own mind. These are reproduced in table 5 below.

Nowhere in the Sinha text are these passages attributed to Sraffa. We will leave the judgement of possible purposefully nefarious motives to the reader of this article; however, the present writer finds it very difficult to believe that the remarkable similarity between these passages is mere

coincidence. Notice also that in the last passage cited by Sinha again we find conflation of “cause” and “standard”, whereas in Sraffa it is only “standard” that is referenced.¹⁴

Table 5: Two Remarkably Similar Passages in Sraffa’s Archive and Sinha’s Text

Sinha text	Sraffa archive text
“For example, the marginal utility of the first slice of bread may be infinite to me but I would not pay all my money for it as long as potatoes were available for a few cents” (p. 45)	“[T]hus the utility of the first doses of bread may well be infinite, or as great as the utility of £100, but I shall not be prepared to pay any extravagant price for bread as long as potatoes are sold at 1 d. a lb” (D3/12/3:22)
This sort of measure of marginal utility is, by definition, dependent on the prices of other commodities and therefore can in no sense be considered the ‘ultimate’ cause or standard of value (p. 45).	“...[I]t will always measure only the...secondary sort of utility which is dependent upon prices of other commodities, and can therefore in no sense be an ultimate standard of value” (D3/12/3:23)

These are examples of some of the rabbit holes that one must go down in trying to follow Sinha’s argument and attribution of such to Sraffa. It is an exhausting exercise that leaves the reader (certainly it did this reader) with a sense of opaqueness of argumentation and frustration as to where it is all going. The fact that it does not make sense becomes much clearer when the reader realizes that what is being quoted is in fact of caricature of Sraffa’s own ideas with the aim to appropriate the same.

FROM SRAFFA’S FIRST EQUATIONS TO THE STANDARD COMMODITY

Chapter 3 is entitled “A New Beginning”. Here Sinha introduces Sraffa’s equations, the “first equations” of subsistence production and the “second equations” of surplus production. Sraffa’s “first equations” are early efforts to develop the subsistence model where there is neither labor input nor net product, and his “second equations” are the extension to the surplus-producing model. Sraffa’s initial development of the surplus system excluded living labor as an input subject to remuneration in the form of the wage rate. This general method is reproduced in PCMC, with Chapter I being the subsistence case and Chapter II the surplus case when there is no remunerated living labor input.

The archival material cited in this chapter, also only from the 1920s, contains some of the most extensive of the book. This chapter paves the way for Sinha to link the material from the 1920s to that of the 1940s, the latter dealt with later on in Chapter 5 “My Hypothesis” when Sraffa

discovered the Standard commodity. The argumentation espoused in this third chapter attempts to link the similarity in equation structures for the different systems, subsistence vs. surplus. And here Sinha actually seems to have stumbled on something constructive, although the manner of presentation is very cumbersome, and the assertion drawn in support of the thesis of the general rate of profit as a “logical condition” is tenuous at best if not outright flawed. The constructive element in Sinha’s analysis is the symmetry with respect to the values derived in the subsistence case to that of what at this juncture Sraffa refers to as “equations with proportional surplus”, with “proportional surplus” defined as the existence of a physical quantity of surplus product in the various industries in exact proportion to the total quantity of means of production of the commodities used in the aggregate system. It is admitted that this is an early prototype of what Sraffa would later call the Standard system. However where the analysis is flawed revolves around the distributive character of the surplus; specifically, Sinha seems to ignore the inverse relation between wages and profits, and therefore does not seem to perceive that in fact the “proportional surplus equations” refer to the system at a particular regime of distribution, namely when the rate of profit is at its maximum value and the wage-share equal to zero. This mistake is repeated in the book.

After Chapter 3 to the end of the book the amount of archival material cited begins to taper off rapidly. Chapter 4 is entitled “First interlude” and here Sraffa’s friendship with Wittgenstein is discussed. Chapter 5 entitled “My Hypothesis” attempts to make sense out of Sraffa’s endeavors in the 1940s. Of the large collection of folders from this era, Sinha only cites from *D3/12/36 Notes Jan – Mar 1944* with any degree of volume, referring to 10 pages from a 27-page document. The utter paucity with which Sinha deals with the material from the 1940s is striking. Admittedly only a few Sraffa scholars have ventured deeply into the material from the 1940s, but the fact remains that this is perhaps the most interesting period in the development of Sraffa’s intellectual endeavors. Instead of providing an analysis of the manner of inquiry to which Sraffa was engaged in this period, only one file, D3/12/36, is given any extensive treatment, and even there incompletely. This file is where the Standard commodity was arrived at in February 1944, and Sinha is able to link the earlier presentation of the proportional surplus system from Chapter 3. Ignoring the hundreds of handwritten pages and scores of files in the amazing collection of notes from the 1940s, Sinha attempts to make a direct linkage to the argument he alone constructs.

This is an example of reverse engineering the argument. For Sinha

Sraffa seems to have arrived at all firm conclusions in the 1920s, and the material in the 1940s and 1950s were only efforts at honing that argument. But in fact it is Sinha, not Sraffa, who reads everything from the standpoint of the material in the 1920s. That this is the case is seen in the very opening passages of the chapter, where Sinha cites from a note entitled “Preface” written in 1928; the only other reference to a draft of Sraffa’s “Preface” in Sinha’s book is a short note written in 1957 (D3/12/46:20; p. 151). But reconstruction of D3/12/46 which is a file containing documents from the 1940s and the 1950s reveals as many as 7 independent drafts of Sraffa’s Preface; D3/12/99 also contains a typescript drafts of the Preface written in 1959. The point here is that Sinha’s prominent use of a note written in 1928 entitled ‘Preface’ leaves the reader with the erroneous notion that Sraffa had in fact arrived at most of the main analytical conclusions then, and that the efforts in the 1940s and 1950s were simply to hone and develop those already arrived-upon definitive conclusions, when in fact this is far from the case. Perhaps Sinha took far too literally Sraffa’s quip in the Preface of PCMC that “the central propositions had taken shape in the late 1920s” (Sraffa 1960, p. vi), to the point that he (Sinha) may not have bothered to read and study the totality of the notes after that!

“My Hypothesis” refers to Sraffa’s notion that there will exist a constancy in the aggregate net output-capital ratio. Sinha’s exposition of Sraffa’s Hypothesis is a woefully incomplete series of out of context citations for an equally woeful number of documents. He makes broad pronouncements and assertions based on these scant documents. The literature on Sraffa’s “Hypo” began with the work of Gilibert (2003, 2006) and de Vivo (2003), and since has been discussed in Carter (2013, 2014a, 2014b), Bellofiore (2008, 2012, 2014), Kurz and Salvadori (2010), and Gerhke and Kurz (2006). Few other scholars have made forays into this area, and for Sinha this is his first. True to form, Sinha derides all previous interpretations. Regarding Gerhke and Kurz (2006), Sinha writes of their “clear... misunderstanding of Sraffa’s ‘Hypothesis’...[which] reveals a serious misunderstanding of Sraffa’s project on their part” (p. 138); for uncited work coming ostensibly from Centro Sraffa scholars he writes “followers of Garegnani have consistently shown their inability to understand the significance of Sraffa’s Standard system and the Standard commodity for his theory” (p. 140); regarding de Vivo (2003) and Gilibert (2003, 2006) he asserts that they “also think that Sraffa abandoned his ‘hypothesis’ rather quickly...[and]...interpret [it] as a ‘trick’ to solve for prices but] in light of the evidence produced in this chapter, this is clearly

a misinterpretation” (pp. 140-1); regarding Bellofiore (2008) Sinha asserts that he “follows de Vivo’s and Gilibert’s interpretations of Sraffa’s ‘hypothesis’ but...misinterprets it” leading Sinha to conclude that “Bellofiore’s fundamental premise...is false” (pp. 141; 143); and lastly Sinha regards the present writer (Carter 2014a) as “closely follow[ing] in the footsteps of Bellofiore”, that “this is clearly a misunderstanding” (p. 143) and a “string of elementary mistakes follow” (p. 144). Sinha concludes with the following dismissive declarative statement:

“This long digression from the main story was only to demonstrate how poorly Sraffa’s central theoretical concept is understood in the Sraffian literature even today, more than fifty years after the publication of his book and more than twenty years after the opening of the archive” (p. 144).

How amazing that so many serious Sraffa scholars have gotten the matter so dreadfully wrong!

Sinha’s critique of both Bellofiore and the present writer involves the net normalization that Sraffa makes in PCMC wherein the total quantity of living labor is normalized to unity in §10, and so is that of the value of net product in §12. Although there in fact are differences in the two approaches that Sinha conflates, what is consistent is that both Bellofiore and the present writer find analytical cogency in setting the two equal to one another, as in $\text{§10} = 1 = \text{§12}$, and that this has conceptual contact with the literature on New Interpretation where the value added by living labor is equal to the value of the net product. Referring to this as “Bellofiore’s thesis” (p. 143), Sinha states that it “has three fundamental problems”:

“First in Sraffa’s 2nd equations there is surplus production but labor does not show up in the equations, so what could this surplus be attributed? Second normalizations of two separate quantities to 1 by no means imply equating the two quantities. As a matter of fact, Sraffa’s two normalizations have separate units and nowhere in Sraffa’s book or notes is the concept of ‘monetary expression of labour time’ introduced. But most importantly, the third problem is that the normalization of the value of net output of the actual system to 1 as introduced in §12 has...a very brief life in Sraffa’s book. Soon after the Standard system is derived the normalization is abandoned and a new normalization adopted, which is equal to the value of the net output of the Standard system...And there is no reason to think that the value of the net output of the actual system and the Standard system would be equal anywhere in the range of r

> 0. Thus Bellofiore's fundamental premise for his thesis that Sraffa equates total labor with the value of net output is false" (p. 143).

These 'criticisms' in fact bely what is a very sophomoric interpretation indeed. The first criticism of labor not showing up in the 2nd equations seems to imply that there is no labor input present. But this is not true on its face. Yes, labor can indeed be extant in the system of production posited in the 2nd equations; it is just *not paid*, meaning the wage-rate is zero. And the product of a zero wage-rate and a positive quantity labor eliminates the labor input in the equation system altogether. This means that the 2nd equations are in fact an economic system expressed in the regime of distribution associated with pure profit remuneration and zero wage remuneration; that is to say, these equations are akin to Sraffa's system when expressed at the maximum rate of profit. Readers of this article can refer to Carter (2017) where the same 3 x 3 numeric example that Sraffa uses and Sinha appropriates is put to use showing the structure of exchange across all numéraire for the various regimes of distribution, from that of pure wage remuneration when the wage share is unity and the rate of profit zero, to the intermediate case of positive wages and profits, to the pure profit remuneration when the wage-share is zero and the rate of profit is at its maximum value. This latter system of equations is precisely that of Sraffa's 2nd equations, and yes there is a positive input of (unpaid) labor. And this is where incomplete and out of context quotes taken from the archive betray Sinha's scientific disingenuousness, because in the file D3/12/7 (which is one of Sinha's heavily quoted files) we find the following explanation for the absence of labor in the 2nd equations:

"Slave Community

The with-surplus equations must be introduced with the assumption of a community in which all the human work (including supervisions etc) is done by slaves. The advantage of this assumption is that it ~~gets us rid~~^{us of} ~~from~~ the question: how are wages determined?" (D3/12/7: 62).

Clearly human labor can be understood to be present in the model, just not remunerated according to the price mechanism, and frankly it is shocking that Sinha does not seem to understand this fact.

Sinha's second criticism also makes little sense. The fact that living labor is measured in hours and net produce is measured in physical units of the heterogenous goods in question does not *ipso facto* mean that the two cannot be put into relation to one another; in fact they are congruent to

one another in their physicalist form, which when expressed in terms of value is then made an equality. And Sraffa's own normalization posits the quantity of labor equal to the price of the net product. What Sinha misses is the value of the wage rate when labor is the numéraire by definition is equal to unity, meaning that on the labor side of the net-ledger there can indeed be posited a wage rate, namely $w = 1$, which is understood and not made explicit. The pure wage regime of distribution when the wage share is unity and the rate of profit zero corresponds to the labor theory of value (see Carter 2017). Also the criticism that Sraffa does not have a "monetary expression of labour-time" explicit in his book does not mean that one cannot be derived from the analytical framework that Sraffa advanced, which after all is only a prelude to a critique of economic theory anyway. The final criticism leveled by Sinha that the "actual" net product is replaced by the "Standard" net product and the former therefore "abandoned" indicates that Sinha has little understanding as the origin or importance of the Standard commodity, since he makes it seem that the Standard net product is somehow wholly removed from the actual net product whereas in fact the former is derived from the properties of the actual system itself. In this context the Standard commodity serves as the numéraire. When applied to the actual system it can be shown that value added by living labor (the wage rate when the wage share is equal to unity, expressed in units of Standard commodity, times the quantity of labor) is equal in value to the actual net product times the prices of the goods (also expressed in units of Standard commodity); again readers can refer to Carter 2017.

In terms of the present writer (Carter 2014a), Sinha's criticisms amount to erroneously nit-picking particular points without ever addressing the main purpose of the inquiry, the latter being that within Sraffa's analytical framework a Marxian interpretation of the notions of surplus and deficit industries can be advanced.¹⁵ Instead of honestly addressing and critiquing the thesis advanced, Sinha instead tries to deride the approach by assertion that "a string of elementary mistakes follow" from an understanding of the national income as alternatively being expressed as the value added by living labor (§10) as well as the value of the net product (§12). Since Sinha erroneously separates the two notions as evidenced from his critique of Bellofiore, this criticism should come as no surprise. But from there he launches into attacks that are purported to flow from this, such as linking the notions of repetitive and non-repetitive systems with a system that include only basics and that which also includes non-basics, and the use of straight lines in the inverse relation between wages and profits without

ever bringing the Standard commodity into the framework. In fact these criticisms are both minor and petty and in no way impugn the overall argument advanced in the original paper.

But it is the last criticism of the present writer that Sinha tries to throw his archival weight around, which as we have evidenced in this review is in fact disingenuous and dishonest:

“Carter further goes on to claim, on the basis of a Sraffa’s note D3/12/2:20, which he ‘conjectures’ was written in 1945, that ‘generally speaking cracking this nut of the feedback effect (the so-called “transformation of the inputs”) would occupy Sraffa’s thinking for many years, and it was precisely on this path that he was led to the concept of “stability” in the means of production, a notion which eventually blossomed into the Standard commodity and the Standard system’ (Carter 2014, p. 24). But this again is a clear misunderstanding. As we have seen in this chapter, the fully fledged mathematical construction of the Standard system and the Standard commodity including the proof of its uniqueness was already in Sraffa’s possession in September 1944” (p. 144).

Notice that Sinha bases his critique on the “conjectured” year of 1945, not on the content of the argument advanced. In fact, this single page, which has Sraffa’s numeration schema of “1d”, is a lone outlier in the file D3/12/2. This file although categorized as belonging to the period of the 1920s, is actually one of the several files that contains documents from all three periods. What is clear is that this particular page cited did not belong in the 1920s and seemed at the time of the writing of the article to the present writer to belong in the 1940s, with 1945 offered as an imperfect “conjecture” to which Sinha derides. Since the opening of the digital images and the development of the Trinity 2.0 arrangement of the Sraffa archive, we now know without question as to where this page belongs, announced here for the first time. This page is the fourth and final page of the note-set “Exploitation” that appears in the file folder *D3/12/17 Prove e Finding lists* written in September 1942. It was Sraffa himself who must have misplaced this page, as it was missed in both the Bharadwaj-Garegnani inventory and the Wren Trinity arrangement. But with Trinity 2.0 this long lost fourth and final page of this very important note-set has finally made its way home.

As shocking as the paucity of Sinha’s treatment of the archival material from the 1940s, the treatment of Sraffa’s material from the 1950s is even worse. In literally 4 and a half pages, from 146 to 151, Sinha lumps all of

the material from 1955-59. In essence, Sinha ignores completely the overwhelming majority of material in all of D3/12. This left the present author in an utter state of shock, especially since Sinha's book is purported to develop of the "economics of Piero Sraffa". How he could ignore this material is beyond belief. There is absolutely zero analysis of the material from this era. It is significant that in introducing this section Sinha seeks refuge in Sraffa's quip cited above in the Preface to PCMC that "the central propositions had taken shape in the late 1920s..." (p. 147); to reiterate Sinha took this quite literally indeed!

Sinha's book rounds to an end with Chapter 6 "The Second Interlude" in which Sraffa's editorship of the Works and Correspondence of David Ricardo is discussed. Here Sinha launches into an attack on the "followers of Garegnani" in the effort to tie the corn theory of profits to the Standard commodity. Then comes Chapter 7 "The Book" on PCMC. This chapter utilizes almost no archival material, which is to be expected because Sinha wholly ignores all the archival material from the 1950s. An entirely separate article needs to be written to correct the errors in interpretation in this chapter, and perhaps the present writer will engage in such one day. Finally, there is a four-page concluding chapter entitled "Epilogue" where in the initial sentence alone, Sinha name-drops Paul Samuelson, Jacob Viner, Joseph Schumpeter, Irving Fisher, Eugene Böhm-Bawerk, David Levhari, and of course Piero Sraffa!¹⁶ The particular haughty tone of this single sentence is a very fitting way to finish an equally haughty book.

CONCLUSION

In sum Sinha's book is an exhausting read and his arguments go down many-a-rabbit hole. The dishonest presentation of the archive is both inexcusable and unacceptable and demands immediate correction.

Use of the archival material is very chaotic and piecemeal where documents only a few pages long are presented and interpreted as the definitive statement that Sraffa is purported to make on very important theoretical matters. But in fact, the entire endeavor is disingenuous. Sinha is able to take advantage of the sheer enormity of the Sraffa archive that few people know, throw out copious amounts of material from the 1920s early on in the book to wear one down, and lead the unsuspecting reader into tacit acceptance of the claims by sheer arrogance and smugness of tone.

The archival material is presented in a very sloppy manner and constitutes a completely out-of-context barrage of quotations meant to support a pre-determined opinion from what in fact is a very limited range

of the overall archival material. Nowhere do we find genuine account of Sraffa's intellectual endeavors, and the reader of Sinha's book risks walking away more confused as to the structure, content, and purposes of the Sraffa archive and Sraffa's intellectual project than before s/he picked it up. The reader of Sinha's book must be aware that only on a few occasions is the entire page of the archive reproduced; more often than not only a few passages taken completely out of context are transcribed, and as we have seen often with errors of both omission and commission. The transcriptions have been altered and sanitized to such an alarming extent that one is unaware of the insertions and deletions Sraffa has made. Sinha obviously relies on the murkiness of the material and the archive must remain in the realm of dark matter for everybody else – recall that his book came out on the dark side of the 2016 watershed prior to the uploading of the digital images.

Above all there is no honest account of Sraffa's own journey and the questions and issues that he, not Sinha, was grappling with. The sloppiness with which the archival material is presented alone should send red flags to the reader that getting the matter right is of secondary importance; rather the point is to get to the matter first. The appropriation of the Sraffa archive in this book therefore presents us with a Sraffa filtered through Sinha passed on by the latter as if the ideas written on the pages are wholly the product of Sraffa's own hand and mind, when in fact they are not. This is the most unsettling aspect of the entire endeavor, namely the hijacking of Sraffa's intellectual and archival legacy by a scholar more intent to sing his own praises rather than advancing Sraffa's voice.

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FOOTNOTES

¹We can all be very thankful to Lord Eatwell, Sraffa's current Literary Executor, for the courage to finally allow Sraffa's archival material to be made available in its uninterpreted state in the form of color digital images. The online endeavor was under the direction of Giancarlo de Vivo and Murray Milgate and led by Jonathan Smith, Archivist and Modern Manuscript Cataloguer for the Wren Library along with the invaluable help of members of the Wren staff, James Kirwan and Hilary Moreton.

²For references in Sinha's book on what Sraffa "thinks", see pages 39, 43, 44 (2

times), 48, 53, 56, 67, 68, 84, 104, 115, 119, 121, 131 (3 times), and 193; for what Sraffa “believes”, see pages 33 and 156; for what Sraffa “wants”, see pages 62, 67, 68, and 111; for what Sraffa “wonders”, see pages 35 and 48; and for what Sraffa “realizes”, see pages 36, 41, 67, 95, 121, 129, 133, 138 (2 times), 139, 141 (2 times), 147 (2 times), 173, 180, and 182.

³Roncaglia (2017) writes: “Many quotes are from the Sraffa papers (at a cursory glance, about one third of the text of chapters 3-6 is made up of such quotes); for anyone not acquainted with the material they provide very interesting reading: Sraffa’s sentences are always thought-provoking”; Levrero (2019) writes: “[Sinha’s book] consists of eight chapters in which Sinha analyses Sraffa’s published writings and the unpublished manuscripts held at the Wren Library, Trinity College, Cambridge.... With regard to Sraffa’s manuscripts, Sinha draws upon those written between 1927 and 1958 concerning Sraffa’s path to PCMC and the elaboration of specific aspects of his 1960 book.”

⁴We are told that the reason for this is to distinguish between single and double underlined emphases that Sraffa uses:

“In quoting from these notes I have followed the publisher’s advise to change single underlines to italics and double underlines to single underlines along with italics” (p. xiv).

⁵Unlike the case with the change in Sraffa’s emphases, Sinha provides no indication as to why he has made this decision to never include ellipses, etc., or otherwise properly indicate where passages of Sraffa’s notes include such insertions and deletions. He is simply mute on the issue which leaves the reader with no indication whatsoever that this even matters.

⁶Garegnani constructs a hybrid convention by melding the Bharadwaj-Garegnani inventory with the Wren Trinity catalogue. This allows in the article for the isolation and identification of three different multiple page independent note-sets that constitute the core of the file. These notes were written in 1927 before Sraffa gave his Lectures on the Advanced Theory of Value beginning in 1928; the pre-lectures are archived according to the Wren Trinity convention as D3/12/3, and the lectures proper D2/4.

⁷The Trinity 2.0 convention contains reference to the different ways in which the Sraffa archive is catalogued in all the conventions where each archive image-page is identified according to the following format:

D3.12.φ_j.(δ_i-δ_s) (π_i-π_s). [Trinity 2.0]

[Wren Trinity:(eWT)]:[Bharadwaj-Garegnani]

Where:

Φ = file number according to Wren Trinity

δ_i = Individual document i out of total in file, d_s = Total documents in the file

π_i = Individual image-page i of the document., p_s= Total number of image-pages in the document

eWT = electronic Wren Trinity image page number = link to individual image on

Wren Janus portal

As of the writing of this article, the material from the 1940s and 1950s is still in-process.

⁸The term “roughly” here is meant to indicate that there are a few cross-over files that contain documents from several or all periods. For example D3/12/2 although lumped with Sraffa’s notes from the late 1920’s contains documents from both the 1940s and 1950s; the files D3/12/62 and D3/12/63 although lumped with Sraffa’s notes from the 1950’s contain documents from the 1940s; and the file D3/12/42 although lumped with Sraffa’s notes from the 1940’s contains documents written as early as the 1920’s and as late as the latter years of the 1960’s. Note this is only a partial list of such anomalies.

⁹That Sinha is wholly unaware of the note-set character of the material is revealed when he first introduces the file D3/12/3 or “pre-lectures”:

“[W]ritten in the summer of 1927, titled in Sraffa’s hand ‘Notes: London, Summer 1927 (physical real cost etc.)’...[t]his is a hand-written long draft of about 70 pages with a few pages now missing. On my inspection, it appears to have been written in a few successive sittings over a brief period” (p. 42).

Sinha gets this entirely wrong! This is not a single document, or “long draft of about 70 pages”; rather it is a collection of 28 independent note sets, some of multiple pagination, others only single-pages long. As mentioned above, the material in the file folder has Professor Garegnani’s own independent numeration schema written in the upper right corner of each page; this is the only file in D3/12 that contains such. Obviously this misled Sinha into thinking that Sraffa himself had written the numeration, which leads to the erroneous notion of it being a single manuscript “written in a few successive sittings”. As mentioned above, this file is the subject of Garegnani (2005) where first footnote correctly identifies the note-set character of the file:

“[T]he three long...manuscripts constitute...[the file], classified in the [Bharadwaj-Garegnani] inventory as A4.4; A4.16; A4.21, separated by pages consisting almost entirely of bibliographies and reading notes that can be associated with the main texts immediately preceding them” (Garegnani, 2005, p. 486, n. 1).

Clearly that the file contains several sets of notes (what Professor Garegnani calls “manuscripts”) is recognized and study of the text proceeds from that fact.

¹⁰These exceptions are as following: pages 74-5 references 6 pages from D1/9; pages 154-5 references D1/21; page 207 references H2/89:56; page 214 references C/294; pages 204-5 references D3/12/111:132.

¹¹The terms “document” and “note-set” are used interchangeably. Thus a “document” in the present context refers to a stand-alone independent set of notes of varying pagination; some “documents” are only a single page, in which case the “document” numeration conflates with its pagination, whereas other “documents” are several pages long.

¹²The numeration of the specific documents is based on the Trinity 2.0 arrangement, which itself takes as guidepost the document numeration schema in the Bharadwaj-Garegnani inventory; see Carter (2018) for details.

¹³Ricardo writes ‘enquiry’.

¹⁴The fact that Sinha writes “cause or standard” whereas Sraffa writes only “standard” may perhaps be seen as evidence that the original mis-transcription in Table 4 above could have been purposeful.

¹⁵The basic argument in Carter (2014a) is that Sraffa’s framework allows for development of the relations between extracted and distributed unpaid labor, as seen with the notion of the “pool of profits” which represents extracted unpaid labor; this term Sraffa used in the 14 year period from 1942 to 1956. Surplus industries are labor intensive industries wherein the amount of unpaid labor extracted by its workers is of greater value than the amount of unpaid labor distributed to the owners of the industry according to the general rate of profit; hence there is a surplus in the unpaid labor of that industry. Deficit industries in turn are capital-intensive industries that have the opposite effect in that the unpaid labor extracted from the workers is less than that which is necessary to pay the profit to the owners of capital at the general rate of profit; hence there is a deficit in the unpaid labor of that industry. Throughout the long article copious amounts of archival material is also cited, the difference with Sinha being that the transcriptions are both correct and presented in a manner allowing the reader to discern for themselves the merits of the argument, including a table and timeline that documents each and every archival quote used.

¹⁶ “Had Samuelson not played tennis on the morning that Jacob Viner and Joseph Schumpeter lectured on Irving Fisher’s critique of Böhm-Bawerk’s theory of interest (see Samuelson 2000), he would have not made the mistake of asking his student David Levhari (1965) to disprove Sraffa’s proposition regarding the ‘re-switching’ of techniques, and the future of Sraffian economics would have been very different “ (p. 227).

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